

Atlantic States Marine Fisheries Commission

Atlantic Herring Section

May 8, 2017
1:00 – 2:30 p.m.
Alexandria, Virginia

Draft Agenda

The times listed are approximate; the order in which these items will be taken is subject to change; other items may be added as necessary.

1. Welcome/Call to Order (*R. White*) 1:00 p.m.
2. Board Consent 1:00 p.m.
 - Approval of Agenda
 - Approval of Proceedings from February 2017
3. Public Comment 1:05 p.m.
4. Consider Addendum I for Final Approval **Final Action** 1:15 p.m.
 - Review Options (*A. Harp*)
 - Public Comment Summary (*A. Harp*)
 - Review Advisory Panel Report (*J. Kaelin*)
 - Review Law Enforcement Committee Report (*M. Robson*)
 - Consider Final Approval of Addendum I
5. Discuss 2016 Spawning Closure Pilot Program (*R. Zobel*) **Final Action** 2:15 p.m.
 - Consider Permanent Implementation of the GSI₃₀ Based Forecast System
6. Consider Approval of 2017 Fishery Management Plan Review and State Compliance Reports (*A. Harp*) **Action** 2:25 p.m.
7. Review and Populate the Atlantic Herring Advisory Panel **Possible Action** 2:29 p.m.
8. Other Business/Adjourn 2:30 p.m.

The meeting will be held at the Westin Alexandria; 400 Courthouse Square; Alexandria, VA; 703.253.8600

MEETING OVERVIEW

Atlantic Herring Section Meeting
May 8, 2017
1:00 - 2:30 p.m.
Alexandria, Virginia

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|--|--|---|
| Chair: Ritchie White (NH) <i>Assumed Chairmanship 2/16</i> | Technical Committee Chair: Renee Zobel (NH) | Law Enforcement Committee Michael Eastman |
| Vice Chair: Mark Gibson | Advisory Panel Chair: Jeff Kaelin | Previous Section Meeting: January 31, 2017 |
| Voting Members: ME, NH, MA, RI, CT, NY, NJ (7 votes) | | |

2. Section Consent

- Approval of Agenda
- Approval of Proceedings from January 2017

3. Public Comment – At the beginning of the meeting public comment will be taken on items not on the Agenda. Individuals that wish to speak at this time must sign in at the beginning of the meeting. For agenda items that have already gone out for public hearing and/or have had a public comment period that has closed, the Section Chair may determine that additional public comment will not provide additional information. In this circumstance the Chair will not allow additional public comment on an issue. For agenda items that the public has not had a chance to provide input, the Section Chair may allow limited opportunity for comment. The Section Chair has the discretion to limit the number of speakers and/or the length of each comment.

4. Consider Addendum I for Final Approval (Final Action)

Background

- The intent of the addendum is to implement effort controls that can slow the rate of Area 1A catch so the seasonal quota can be spread throughout the entirety of each trimester, specifically Trimester 2.
- The addendum includes 6 alternatives to modify the Days Out program.
- Public hearings were held in Maine, New Hampshire, Massachusetts and New Jersey. Staff received 17 written comments, including a small-mesh bottom trawl petition with 82 signatures.
- Draft Addendum I, public hearing summary, written comment summary, Advisory Panel report and LEC report are in **Briefing Materials**

5. Discuss 2016 Spawning Closure Pilot Program (Final Action)

Background

- Upon approval of Amendment 3 the Atlantic Herring Section granted a one-year pilot of a new method, known as the GSI30-Based Forecast System, to be tested in the 2016 fishing season, followed by a performance review. The Section has the option to permanently implement the forecast system or to revert back to the length-based closure system (from prior years).
- 2016 Spawning Closure Overview in **Supplemental Materials**

6. Consider 2017 FMP Review and State Compliance Reports (Action)

Background

- New York has requested *de minimis* status.
- FMP Review in **Supplemental Materials**

7. Review and Populate the Advisory Panel (Possible Action)

Background

- An overview of current membership and vacant seats is in **Briefing Materials.**

8. Other Business/Adjourn

**DRAFT PROCEEDINGS OF THE
ATLANTIC STATES MARINE FISHERIES COMMISSION
ATLANTIC HERRING SECTION**

**The Westin Alexandria
Alexandria, Virginia
January 31, 2017**

**These minutes are draft and subject to approval by the Atlantic Herring Section
The Section will review the minutes during its next meeting**

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1. **Motion to approve agenda** by Consent (Page 1).
2. **Motion to approve proceedings of October, 2016** by Consent (Page 1).
3. **Move to approve the request of the New England Fishery Management Council to add a non-voting member seat for the development of Addendum I** (Page 1). Motion by Terry Stockwell; second by Doug Grout. Roll Call Vote: In Favor – ME, RI, CT, NY; Opposed – MA, NJ; Null – NH. Motion carried (Page 5).
4. **Move to approve Draft Addendum I for public comment with the exception of Section 3.2; items reviewed by the PDT but not developed** (Page 16). Motion by Terry Stockwell; second by Dennis Abbott. Motion carried (Page 16).
5. **Move that the Herring Section recommend to the ISFMP Policy Board to write a letter to the GARFO Office requesting that the states of Maine, New Hampshire, and Massachusetts be granted access to the VMS pre-landing report** (Page 16). Motion by Doug Grout; second by Terry Stockwell. Motion carried (Page 17).
6. **Motion to adjourn** by Consent (Page 13).

ATTENDANCE

Section Members

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|--|--|
| Terry Stockwell, ME, proxy for P. Keliher (AA) | Mark Gibson, RI, proxy for J. Coit (AA) |
| Steve Train, ME (GA) | Mark Alexander, CT (AA) |
| Rep. Jeffrey Pierce, ME, proxy for Sen. Langley (LA) | Dr. Lance Stewart, CT (GA) |
| Doug Grout, NH (AA) | Sen. Craig Miner, CT (LA) |
| G. Ritchie White, NH (GA) | Emerson Hasbrouck, NY (GA) |
| Dennis Abbott, NH, proxy for Sen. Watters (LA) | John McMurray, NY, proxy for Sen. Boyle (LA) |
| Sarah Ferrara, MA, proxy for Rep. Peake (LA) | Adam Nowalsky, NJ, proxy for Asm. Andrzejczak (LA) |
| David Pierce, MA (AA) | Tom Baum, NJ, proxy for D. Chanda (AA) |
| Raymond Kane, MA (GA) | Christopher Zeman, NJ, proxy for T. Fote (GA) |
| Eric Reid, RI, proxy for Sen. Sosnowski (LA) | |

(AA = Administrative Appointee; GA = Governor Appointee; LA = Legislative Appointee)

Ex-Officio Members

Staff

| | |
|-------------|--------------|
| Robert Beal | Ashton Harp |
| Toni Kerns | Max Appelman |

Guests

| | |
|-------------------------|---------------------------|
| Ali Murphy, NMFS | Vincent Balzano, Saco, ME |
| Ed O'Brien, MD LA proxy | |

The Atlantic Herring Section of the Atlantic States Marine Fisheries Commission convened in the Edison Ballroom of the Westin Hotel, Alexandria, Virginia, January 31, 2017, and was called to order at 8:00 o'clock a.m. by Chairman G. Ritchie White.

CALL TO ORDER

CHAIRMAN G. RITCHIE WHITE: I would like to welcome everyone to the Atlantic Herring Section; call the meeting to order. Before we get started with the agenda, we have two new commissioners present. I would like to welcome Mark Alexander; Connecticut, and Ray Kane from Massachusetts. I don't know if I can see that far, but I think we have New Jersey, Chris Zeman sitting in for Tom Fote; but he may not be at his seat.

APPROVAL OF AGENDA

CHAIRMAN WHITE: Starting with the agenda, is there any changes to the agenda? Terry.

OTHER BUSINESS

MR. TERRY STOCKWELL: Yes, I would like to move the other business of adding a New England council member as a non-voting member of the Section to the beginning of the meeting rather than at the tail end.

CHAIRMAN WHITE: Is there any objection to the change in the agenda? Seeing none; we will make that change.

APPROVAL OF PROCEEDINGS

CHAIRMAN WHITE: Are there any changes or additions to the October, 2016 minutes? Seeing none; we consider those proceedings approved by consent.

PUBLIC COMMENT

CHAIRMAN WHITE: Next public comment, is there anybody that would like to address the Section on items that are not on the agenda? Seeing none; then we're going to move into

considering non-voting representation for the New England Fisheries Management Council; and Terry will speak to that.

MR. STOCKWELL: This issue became apparent before the New England Council's Hearing Committee in Full Council meeting, which met last week; with specific reference to Addendum III. As the TC has identified in their overview of management alternatives, every one of the ones that are proposed may require NMFS involvement.

This is a joint managed species; we do set the specs together. There are state managers certainly, and at least one other council member that sits on the New England Council and the Hearing Committee; but there are many times where we cannot advocate for the council's position because we're advocating for that of our specific states.

I am going to make a motion to move that the Atlantic Herring Section approve the New England Fishery Management request to add a member of the council as a nonvoting member of the commission's Herring Section during the development of Addendum I.

CHAIRMAN WHITE: We'll get that up on the board; and oh a second, sorry. Doug Grout second, so we'll get that up on the board. Are there any comments? Yes, David.

DR. DAVID PIERCE: I was at the council meeting when we voted to do this. But after giving it further thought, I still wonder about the rationale and the reasons why we need to have another New England Fishery Management Council member at this table; in this particular case as a nonvoting member.

As noted by Terry, there are the state directors who are intimately involved with sea herring management at the state and federal level. We have the Chair of the Herring Committee, I think you're still Chair, Doug aren't you? I am still looking for some good rationale as to why there

should be someone else present to deal with federal fisheries considerations.

We have the National Marine Fisheries Service here at our Section meetings, giving us all the necessary guidance as to whether what we are proposing to do puts us in conflict with the federal rules; or just as inappropriate should be a joint action between the Section and also the council. I'm still looking for a good reason why, and I would like the maker of the motion to provide a more compelling case if he would.

CHAIRMAN WHITE: Any other? Dennis and then Terry.

MR DENNIS ABBOTT: I am opposed to this motion. I am opposed to this motion for a number of reasons, both process and the very fact of having a member. We just received a letter from the New England Fisheries Management Council on Friday. I think that is really too late to even be put on the agenda in the first place; and here we are a couple days later having had little time to absorb the ramifications of adding a council member, and we've already got it at the head of our agenda this morning.

I don't have a problem necessarily with a council member sitting at the table for a specific purpose, but this says that they will become a permanent member; non-voting member, but however a permanent member. I don't think the very fact that we are creating Amendment 3, warrants the inclusion of a member.

Second or third, the letter doesn't state who will be sitting on the board. Is it going to be the Chairman of the Herring Board of the Council? Is it going to be the Executive Director, or is it going to be an industry member? Could it be someone with close ties? I don't see that we need them. As Dr. Pierce previously stated, we already have members on the board.

If they chose to speak from a different position, as we've seen Terry Stockwell do; I think in

lobsters. He simply goes to the back of the room and establishes that he's speaking for the Council. I don't think it is necessary. It would be my recommendation, and if necessary I'll make a motion to postpone.

But I think that the Commission should develop a policy about including outside members to the Commission. We have to remember, this is the Atlantic States Marine Fisheries Commission; it isn't the Council, or whatever. I think they have enough voice, and when their voice needs to be heard they have plenty of opportunity to do that.

If we wanted a nonvoting member, I would be more strongly in favor of possibly an advisory board member coming to sit for a specific purpose; but not to add somebody at this point who is going to become a permanent non-voting member until the Commission takes action otherwise. Yesterday I spoke with the Executive Director. I think that he indicated to me that we didn't have a policy established for doing this with Sections; although we do with Boards. I'll close there and ask Robert if he can clarify for my understanding.

CHAIRMAN WHITE: Do you want to clarify that Bob?

EXECUTIVE DIRECTOR ROBERT E. BEAL: I would be happy to. Mr. Abbott is correct. The Charter provides that a management board can invite council representatives to sit as voting members. The Charter is pretty clear that it is the Chair or Executive Director of the Council or their designee; so they are allowed to assign proxies if a board wanted to invite them.

We have two examples of that in the Commission; one is the New England Council sits on the Lobster Board, and they vote on Jonah Crab issues. They've abstained on lobster issues; since there isn't a lobster FMP at the Council. The South Atlantic Council sits on the South Atlantic Board and votes on a number of issues on that board; because there is a lot of overlap between the species that the South Atlantic

Council works on and our South Atlantic Board work on.

Those are the two examples. The second point is that there is no guidance on Sections. Sections are kind of a unique animal; they were formed under Amendment 1 to the Compact and we don't have guidance in any of our guiding documents on how or if council representatives can be included on Sections. But Doug and I have had some conversation.

There is a lot of conversation, or a lot of discussion in the Charter about the importance of coordinating with the councils on these joint and overlapping complementary plans that we have. I think however the Section wants to include the Council in a nonvoting capacity is probably appropriate. You are not violating any provisions if this Section decides to approve this motion; but again, the Charter is silent on Sections and including councils.

MR. STOCKWELL: As we struggle to move forward with improving the management process between the different bodies here on the east coast, the two councils and Commission, to deal with climate change, socioeconomic issues and dual management. I think it would be a travesty not to include the Council in the discussion of this specific addendum.

It is not for the entirety of membership on the Section, it is specific to the development of this addendum; which is from the Council's perspective, and I'm speaking with my council hat on, of interest to the Council because of the management alternatives that have impact on the federal permittees.

This is no different to me than the Commonwealth of Massachusetts asking for additional representation on the Mid-Atlantic Fisheries Management Council for demersals on the Council. It is broadening our ability to collaborate with other members for joint management of stocks that are important to all of us.

The non-voting member seat is only because the sections are not allowed to have a voting member. I would welcome to have a council member to vote on this as well; but our charter does not allow for that. I urge the Commission and the Section to approve this. Let's try it out and see if it works, if not there is no reason to consider a council seat on the Herring Section in the future.

CHAIRMAN WHITE: Question for you, Terry. Since the Council is interested in broadening our ability to work together. Have there been any discussions about having a Section member sit on the Council?

MR. STOCKWELL: Reciprocity is something the Council has always considered. We recently populated the Habitat Committee with the Commission's Lobster Chairman, David Borden. We have commission members sitting at all our seats and it is something I could certainly bring back to the Executive Committee with Chairman Grout.

MR. DOUGLAS E. GROUT: I want to speak in favor of this motion. A couple points here that I want to make clear to the Section here. One, National Marine Fisheries Service is not represented on this Section, so that input is not provided here. Two, this is not a permanent one; it is very specific to provide a seat so that they can have some input and provide the Council's perspective on Addendum I. It doesn't say that this is a permanent seat on here.

They've asked for it for this specific issue. We've been partners in management for years, co-managing this species. This is the first time that they've felt this issue was important enough to move forward and try and at least provide the Council's input to the Section here on this particular management measure. We have not ever requested a seat on the Council. We do have Bob or Toni that represents the Commission at every council meeting.

As in this case, they are also ex officio members; non-voting members and they do bring up the Council's position. I am in the same boat as Terry, as sometimes I think it is important to have a council member here for this particular issue; because there are times where I need to represent the state and not so much the Council's position on matters.

I believe that this is important, and I hope you all consider allowing the Council to have an ex officio non-voting seat. One final point is the Charter, as Bob says, does speak quite extensively about the importance of coordinating with the councils on overlapping fisheries.

CHAIRMAN WHITE: David is next.

DR. PIERCE: Clarification, Terry noted my position on fluke, scup and sea bass, and said that my position relative to management of those three species conflicts with what I'm just suggesting for this particular motion. My request for those three species was joint management authority for those three species, the New England Council and the Mid-Atlantic, so it is entirely different.

To the point made by Doug. It is a good point regarding the National Marine Fisheries Service not being a Section member. Perhaps the motion should read that the non-voting member should be the National Marine Fisheries Service; for the purpose of developing Addendum Number I. If that is the intent of the maker of the motion, to make sure that we have the Service at the table as a non-voting member, then that's a different story.

But right now as noted by Dennis, this is open and there is no clear indication as to who in the world would be that non-voting member for the purpose of Addendum Number I. Again, I'm not going to vote in favor of this. I understand why the maker of the motion made it, but still it is not clear enough and I don't see the benefit of it.

MR. ADAM NOWALSKY: Good morning. As I understand this, we would have this nonvoting member purely for the purpose of development of Addendum I, which we're slated to take final action on at the next meeting. We're essentially going to have that individual here for one meeting; is what I'm basically looking at.

Given that we have the public comment period, the opportunity potentially for public comment on motions at the meeting, in order to support this motion, I would need some understanding about what that person, what that position would be able to provide by seated at the table; as opposed to being able to provide public comment during the time when this issue is opened for public comment, as well as having time for public comment at the next board meeting.

MR. ABBOTT: I am considering a motion and a motion to amend. My one motion would be to postpone this until May. On the other hand, I think I've been told that Vincent Balzano is here for the purposes of this meeting. An assumption is made that he is going to be sitting at the table.

I'll start off with an amendment. The amendment would say to act as a non-voting seat, not for the development of Addendum I, but for this meeting. That would give us time, probably if necessary a further motion to give this issue more of a chance to be vetted out through the Commission.

CHAIRMAN WHITE: Did you make that amendment?

MR. ABBOTT: Yes.

CHAIRMAN WHITE: Is there a second? Seeing none; motion fails. Unless there is someone that has not spoken yet, I think it is time for us to vote. Seeing that; all those in favor. Do you need the motion read? All those, Doug.

MR GROUT: Could we have time to caucus?

CHAIRMAN WHITE: You may. Okay, are we ready? All those in favor, please raise your right hand. Opposed –made a mistake, this is a final action so it has to be a roll call vote. Sorry about that. Ashton.

MS. ASHTON HARP: Maine.

MR. TERRY STOCKWELL: Yes.

MS. HARP: New Hampshire.

MR. DENNIS ABBOTT: Null.

MS. HARP: Massachusetts.

MR. RAYMOND KANE: No.

MS. HARP: Rhode Island.

MR. MARK GIBSON: Yes.

MS. HARP: Connecticut.

MR. MARK ALEXANDER: Yes.

MS. HARP: New York.

MR. JOHN McMURRAY: Yes.

MS. HARP: New Jersey.

MR. ADAM NOWALSKY: No.

CHAIRMAN WHITE: Motion passes 4-2-1-0. Okay, Dennis.

MR. ABBOTT: The motion that just passed says that for the development of Addendum I. What will be the sunset date for this participation?

CHAIRMAN WHITE: The passage; the passage or the failure.

MR. ABBOTT: It will sunset following the completion of Addendum I.

CHAIRMAN WHITE: I believe that is what the motion says. Is there a different interpretation you're suggesting?

MR. ABBOTT: Your interpretation is saying that it will end following the adoption of Addendum I?

CHAIRMAN WHITE: Yes, I believe that's what it says; Terry.

MR. STOCKWELL: That was the intent.

MR. ABBOTT: Thank you that's good.

CHAIRMAN WHITE: Okay, is Vincent Balzano here? Yes there he is. Vincent is one of the most distinguished commercial fishermen in the state of Maine, and I think he's going to be a great addition to sit at this table. Vincent. Do we have a seat for him?

MR. ABBOTT: He's both a good herring fisherman and also a good shrimp fisherman this year.

CHAIRMAN WHITE: He is for sure. Okay welcome, Vincent and I'll be looking for your hand to be raised.

MR. VINCENT BALZANO: Thank you, Mr. Chair and thank you to the Section for granting the Council's request. This is an important issue to the Council, and I will say that we have not had an opportunity to officially review or discuss the document; so it will be more a catching up and maybe a few questions then it would be for official comment from the Council.

**CONSIDER APPROVAL OF DRAFT ADDENDUM I
FOR PUBLIC COMMENT**

CHAIRMAN WHITE: Okay next agenda item, Consider Approval of Draft Addendum I for Public Comment. Ashton.

MS. HARP: Good morning. Today I'm going to review Draft Addendum I to Amendment 3 of the Atlantic Herring Fishery Management Plan. Addendum I was initiated to improve performance in Area 1 fishery. In recent years the Area 1, Trimester 2 fishery has harvested herring at a rate that if left unrestricted would exceed the seasonal quota in weeks, not months.

The increase in Area 1A fishing effort and vessel capacity is in reaction to a significant decrease of readily available herring in Area 3. Area 3 fishermen have reported finding some Atlantic herring schools, but in deep waters and intermixed with haddock schools. Attempts to spread the Trimester 2 quota throughout the season using the existing days out program have proven to be ineffective.

In 2016 the state of Maine implemented measures that were more restrictive than those of the Commission. The Section initiated the Draft Addendum I at the October, 2016 meeting to consider alternative management measures in order to improve the performance of the Area 1A fishery.

The intent of this addendum is to develop additional measures that ensure the seasonal quota is spread throughout the entirety of each trimester; that the measures are consistent between the states, and they address excessive capacity. The Section proposed nine alternatives in Draft Addendum I at the October meeting.

PLAN DEVELOPMENT TEAM REPORT

MS. HARP: The Plan Development Team reviewed each alternative, and ultimately developed options for six out of the nine proposed alternatives; as shown in this table. The first column describes the alternative. The second column illustrates what are the PDT developed management measures. A green cell means yes, a red cell means no.

The next columns indicate NMFS and ACCSP, so whether or not they may be involved in the development of these options. I will walk

through the management options for Alternatives 1 through 6, and will provide reasoning's on why the final three do not have management options in this document.

For reference, the coastwide Atlantic herring annual catch limit is divided amongst four management regions. ASMFC's Atlantic Herring Section manages Area 1A; therefore it is the focus of this presentation and the document. The Area 1 fishery has two primary effort controls, the first is seasonal quotas.

The majority of the Area 1A Sub-ACL has been allocated during the months of June through September, known as Trimester 2. This time period largely overlaps the peak months for lobster landings as shown in this figure. Herring is the most widely used bait type for lobster traps. The second effort control is the available landing days; known as the days out program.

This table shows the landing days during Trimester 2 of the Area1A fishery from 2011 to 2016. At the start of the season managers make planned landing day adjustments based on the fishery performance from previous years. In this table you will note that in 2013, 2015, and 2016, landing days were restricted before the end of the season; and this is indicated by cells that have a zero in them. I've reviewed the intent of the addendum and the current management measures, and would now like to review some pertinent data related to the forthcoming alternatives and management options. As shown in this table, purse seine and midwater trawl vessels on average account for 99 percent of the Atlantic herring landings in Area 1A.

Depending on the season, the gear ratio will be different, so during Trimester 2, 99 percent of the landings are from purse seine vessels; whereas in Trimester 3, midwater trawls account for 55 percent of the landings. The number of purse seine vessels directing on herring in Area 1A has declined with exception.

In 2016 there were two additional vessels when compared to 2015. As a high volume fishery, two additional vessels can greatly increase the capacity of the fishery, given purse seiners account for 80 percent of the landings on average. However, the fishery has had upwards of eight purse seine vessels in the fishery within the last five years; so seven is not unprecedented.

During June through October of the 2011 through 2015 fishing season, the average price of herring per metric ton in Area 1A was slightly more than \$300.00. In 2016, the per metric ton price peaked at around \$600.00; due to lack of supply and consistent demand. Traditionally herring during the summer months is harvested in Area 1A and 3.

Collectively these two areas comprise more than half of the overall Atlantic Herring annual catch limit. Reduced Area 3 landings have put additional pressure on Area 1A. However, the Area1A Sub-ACL by itself cannot meet the current needs of the bait market. The PDT attempted to look at carrier and transfer-at-sea activity, but quickly realized measures that were included in Amendment 5 to the federal Atlantic herring fishery management plan would make this a bit of a challenge.

Carrier vessels were provided more flexibility as a result of Amendment 5, which was implemented in 2014. A vessel could declare if it was going to become a carrier on a trip by trip basis via VMS and VTR reporting requirements for carrier vessels were eliminated. As a result the carrier activity from 2014 through 2016 shown in the top table is incomplete and represents minimum amounts.

Although VTR reporting requirements were eliminated, there were some carriers that continued to provide the VTR reports, and that's the data that is shown in the cells for 2014 through 2016. I just want to continue to note that it is an incomplete picture of carrier activity in those years. Amendment 5 also established

at-sea herring dealer permits, which allows a carrier vessel to sell herring instead of solely acting as a transporter. In 2016 five permits were issued.

The majority of options under each management alternative are linked to federal permit categories; therefore these tables summarize effort and participation for those permit categories that can fish in Area 1A. Those permit categories include permits A, C and D. As shown in the top table, vessels with a Category A permit harvest the majority of Atlantic herring in Area 1A.

To obtain a Category A permit, a vessel must meet certain landings and history criteria. For the bottom table it illustrates the number of vessels that have a federal permit, and also the percentage indicates the amount of those permits that are active. The number of active Category A vessels has fluctuated between 21 and 26 vessels in recent years. Category C and D permits are for incidental catch, and participation among these vessels has been decreasing. Now I'm going to move into the draft management alternatives for Draft Addendum I. I'll review six management alternatives, and these were designed to improve the stability of the fishery and stabilize the rate of harvest during the fishing season.

The PDT would like to note that the adoption of all six may not be necessary to meet this goal. The first one is state vessel landing reports. To complete the majority of the other alternatives, states will need access to more timely reporting. Currently the days out program relies on weekly landing reports; which are not ideal in a high volume fishery.

Option B would require additional reporting requirements on behalf of harvesters that land herring from Area 1A and also land out of Maine, New Hampshire and Massachusetts port. The harvester would be required to report catch within a 24 hour period to the state, likely through ACCSPs eTrips, so this would require

some outreach on behalf of the states to familiarize harvesters with the new reporting system, as well as take time to work with ACCSP to roll out eTrips for this specific fishery.

Alternative 2 is: prohibit the landings of herring caught in Area 1A during a day out of the fishery. Option 1 is status quo. As we know the days out program pertains to all harvesters, and it just says; a vessel may land once per calendar day on any day that is open to landing, i.e. not a day out.

Similar to current spawning closures, the PDT has developed Options B and C. Option B is, harvesters are prohibited from landing or possessing herring caught in Area 1A during a day out of the fishery; and harvesters is highlighted in red, because originally in the document that was sent out they said all directed herring vessels but it should have said just harvesters to make it a bit more general.

Option B is supposed to be very similar to Option A, except for a change in wording where it says or possessing. Option C is specific to Category A, limited access permits. It basically says the days out program only applies to Category A vessels, meaning that if vessels of Category C or D permit then they are not required to comply with the days out program if Option C is chosen.

Alternative 3 is weekly landing limit per vessel. As we know, currently the Commission has not issued any weekly landing limits per vessel, so Option B and C were developed. The PDT expects a weekly landing limit per vessel to stabilize landings in the fishery. Option B would apply the weekly landing limit to Category A vessels, and Option C would apply the weekly landing limit to Category A and C vessels.

The PDT notes that Option C would require more work on behalf of the states to track Category C vessels in addition to A vessels. In addition, Category C vessels are already restricted as a condition of their federal permit to catching no more than 55,000 pounds per day. Landings by Category C vessels in the last five years have not

exceeded 700 metric tons; and in 2015 Category C vessels only landed 77 metric tons.

In comparison to Option B, Option C would therefore require additional staff resources to track those vessels. For both options, harvesters would be required to notify states of their intent to fish in Area 1A, and the gear type they will be using 45 days prior to the start of the fishing season. Forty-five days was chosen, because it allows states the time to record the expected number of vessels and gives the TC a proper amount of time to calculate weekly landing limits and the landing day scenarios. These would then be presented at the days out meeting, which is generally one month prior to the fishing season.

Alternative 4 is landing restrictions on transfers at sea. Currently status quo is a vessel with the proper permits can transfer or receive Atlantic herring at sea. The PDT considered placing landing restrictions on those transfers at sea. Option B allows harvesters to land herring, meaning if you harvest the herring then you can land such herring.

This option would have significant economic impacts on vessels that operate solely as carrier vessels; because it essentially eliminates them from the Area 1A fishery. Option C is a replicate of the regulations that were implemented in Maine in 2016. It restricts carrier vessels to receiving one transfer per week from a harvester vessel, and allows carriers to land once during a 24 hour period at any Maine, New Hampshire or Massachusetts port.

The PDT has some concerns with the traceability of Option C, because carrier vessels do not report catch on federal VTR reports. Option C would require New Hampshire and Massachusetts to develop a reporting mechanism for harvesters to report transfers at sea, and/or develop some kind of carrier permit to track these carrier vessels.

Alternative 5 is a small mesh bottom trawl days out program. Currently the days out program

applies to all Atlantic herring harvesters. The PDT developed a small mesh bottom trawl days out program that would operate in a similar fashion to the existing days out program; meaning that the Section members from all three states would still meet to determine the number of days out for each vessel, they would just do it for small mesh bottom trawl gear in addition.

Although harvest of Atlantic herring by small mesh bottom trawl fleet is small, at less than 1 percent of the Sub-ACL, there is interest in targeting herring for the weekend recreational bait market. Generally the days out program does not allow landings on the weekend, because of the large volume market the first early week landing days.

This days out program acknowledges other markets and allows the small mesh bottom trawl fleet to have differential landing days. To opt into the program a vessel would have to have a Category C or D permit and use small mesh bottom trawl gear. Harvesters would also be required to notify each state 45 days prior to the start of the fishing season to declare into the fishery.

This is just a little example to show like how the days out program could work, based on different gear types. The purse seine vessels would have landing days at the beginning of the week, the small mesh bottom trawl could have landing days at the end or over the weekend as they like, they could also overlap in landing days as well.

Alternative 6 is clarification of the days out procedure. Currently the FMP says that if states cannot come to a days out decision then the matter will come before the Section at the next scheduled meeting or special meeting. The Section has requested to clarify the method of agreement in the number of landing days available the decision is not made. Option B1 entitles each state to one vote, whereas the majority wins; since there are three states participating. Option B2 would require a

consensus vote. If there was still an issue where states could not agree, then default landing days would kick in; and currently these are not designated in the FMP. Option C1 would apply a previously agreed upon landing day scenario.

Whatever was previously agreed upon would kind of rollover if the decision could not be made, or if no decision had been made; say it was the beginning of the fishing season, then seven available landing days would be made available. Option C2 would say that if a decision is not made then the default landing day scenario is zero days.

There would basically be no fishing until a decision could be made. That concludes the management alternatives that were developed by the PDT for Draft Addendum I. The next portion of the presentation is overview of the alternatives that were considered by the PDT but not developed.

The Section members were made aware of the PDTs concerns' regarding these alternatives, and a regional working group was convened on January 5th. The working group discussed the two alternatives under Section 3.2 and recommend they be removed from the document. A tiered weekly landing limit was another alternative that the PDT did not develop management options for. Instead, a portion of the regional working group suggested scoping questions be developed and these were developed under Section 4; and I'll review both of these sections now.

The first alternative that does not have any management options is, restrict a vessel from using a different gear type midseason within Area 1A. The method to implement this alternative would mean that if any vessel fishes, let's say in Area 3 using midwater trawl gear that vessel could not then switch midseason to become a purse seine vessel in Area 1A. If this was implemented, a vessel would have to declare into the Area 1 fishery at the start of the season, possibly 45 days before.

But the PDT feels that this alternative has the potential to increase the Area 1A participation. For example, a midwater trawl vessel that may have formerly fished in Area 3, may declare into the Area 1A fishery as a purse seine vessel at the start of the season, instead of even attempting to fish in Area 3.

Therefore, the PDT feels that this alternative could have an unintended, negative impact on the Area 1A fishery and the lobster bait market. As shown, also in the white paper that was presented at the October meeting, the bait market relies on landings from both Area 1A and 3, and the Area 1A Sub-ACL alone cannot meet this demand.

The second alternative that was considered by the PDT, but options were not developed, was to develop an Area 1A set-aside of the small mesh bottom trawl fleet. The PDT noted that states currently lacked the ability to monitor small mesh bottom trawl landings as reporting does not include mesh size.

Also, the PDT most importantly feels that ASMC could, or the Section could recommend the Commission send a letter to encourage the Council to consider this action in the next specifications package, since we are talking about the ACL; and if we don't have the proper methods to report on how much catch is coming in, it might not be preferable to install this if we can't really report on it accurately. The next section is Section 4, and at the working group meeting the PDT presented concerns regarding a tiered weekly landing limit. Most notably the group did not have enough time or guidance from stakeholders to begin the process of developing options. In addition the PDT noted that vessels with a Category A permit, which harvests the majority of the Sub-ACL, have already met certain landings and history criteria to receive such permit.

Therefore, this has the potential to negate future fishing opportunities that have previously been instated by the National Marine Fisheries

Service. At the meeting there was some interest in having a better understanding of what a tiered system may look like. The PDT had previously concluded that stakeholder input would be a valuable first step in this process. Following the meeting, Maine also agreed. I am going to present some draft scoping questions to gather input on the next slide.

I just want to note that after the meeting the PDT was notified that the Maine Legislature has taken the first step to implement such a program. The Legislature proposes to establish a control date for Atlantic herring, and to allow for the Commissioner to establish differential landing limits. Similar legislation actions would be required from each state prior to implementation.

This slide just kind of shows the initial scoping questions for the tiered weekly landing limit. How this was kind of initially thought out was that following each public hearing on Draft Addendum I, staff could hold an additional session to discuss these scoping questions. The feedback generated from these questions could be used to develop options in a future management document; either an addendum or an amendment, however not this addendum.

Feedback on Draft Addendum I and the scoping questions could be presented at the May meeting. As you can see, I mean the questions are very general, just are harvesters interested in a tiered weekly landing limit, and if so, how would the tiered system be created? Would it be vessel size, would it be harvester history permit category? How many tiers are needed?

If there is a control date based on harvester history, what is that date? If its vessel size, what range of vessels do we want to include in each tier? Then also, should each tier be designated a portion of the seasonal quota; if so what percentage? These kinds of basic questions the PDT felt that they needed guidance from stakeholders before developing any options for them.

The Board would have to consider if they wanted to have Section 4 included in this document in Draft Addendum I for public comment. I want to review the addendum timeline. This addendum was initiated at the October meeting. There was a working group held in New Hampshire at the beginning of January. We are all here today to kind of meet and discuss Draft Addendum I, and possibly approve it for public comment. In blue are kind of things that are a little bit extra from a regular addendum.

At this meeting the Section can also consider the working group recommendations to remove Section 3.2 and also consider whether or not they want to include Section 4, the scoping questions in this document. If this document is approved then the Section will solicit public comments on it in March and April, and states will conduct public hearings. We will all meet back in May and review the public comments if the scoping questions are included in the document or as an appendix to the document, or as a separate document; but still go out for public comment. Those would all be presented in May as well. June, 2017 is what I've noted for the provisions of Addendum I to be implemented. It will need to be discussed, I guess probably at the next meeting if that is a possibility, because the meeting will be in May and the fishery starts June 1st, but that can be up for further discussion. With that I will take questions on Draft Addendum I as it was presented today.

CHAIRMAN WHITE: Thank you, Ashton. As you can see this has been a complicated process in the states that have not been involved in trying to manage the flow of herring during a second trimester. We've been struggling with this for a number of years. As you can see there are complicated potential solutions to that; having said that questions for Ashton, David.

DR. PIERCE: Yes, 2016 was an especially difficult year as noted by Ashton in her presentation; slowing down landings making available a constant flow of herring for lobster bait. I am

glad we have the addendum before us, and much of it was of course initiated at the request of the state of Maine; and thanks to the state of Maine for offering it up.

Question, the working group Ashton, in particular the Plan Development Team did a great job putting this together, and there is some data that I hadn't seen before that is extremely useful. My question pertains to those data. Leading up to my question, I just want to highlight how I got to the question, and that is we're concerned about Trimester 2 primarily; June through the end of September for availability of lobster bait.

I notice in Table 3B for that time period June through September that 99 percent of the overall landings for Trimester 2 are from purse seines. Then I note that in Table 4B that there were only five purse seines. Five purse seines permit holders responsible for 99 percent of all of those landings, and then I noted in the table following that the average total revenue was about 1.5 million dollars per permit holder, and it went up dramatically in 2016 as opposed to previous years.

My question is, of the five permit holders how many companies are we talking about, because my question is specific to the scoping comments; and I'll get to that later on. But how many companies are responsible for 99 percent of all of the purse seine landings? Actually that is all the landings basically, not just purse seine landings, so all the landings taken from Area 1A during that time period. How many companies, do we know, Ashton?

MS. HARP: I'm sorry; I do not know the answer to that question.

DR. PIERCE: Okay perhaps Terry would know. There are also carriers involved as well; carriers who have permits and they can sell their sea herring. I would also love to know, especially for the public hearings that we're going to have, how many carriers are owned by the same

companies? To give the Section a better feel for right now, who has the major portion of all of the herrings available for harvest? It is an important issue. It is important for us to know and understand as we move this addendum forward. Is it safe to say two companies?

CHAIRMAN WHITE: Trying to determine whether that information is available, you know due to privacy. I'm not sure whether we can get that or not; but I guess we can pursue that.

DR. PIERCE: Yes, I would appreciate pursuing that question in preparation for the public hearings, because I'm sure that it will come up; since we are talking about measures that will promote, perhaps, those existing participants, and those few companies for continuing to have the lion share of what's available for harvest.

CHAIRMAN WHITE: Terry, to that point.

MR. STOCKWELL: To that point, Mr. Chairman. Actually David, directly behind you is two different purse seiners from the state of Maine. There are three others plus another company that came from New Jersey. There are six different entities, six separate entities last year.

CHAIRMAN WHITE: Thank you, Terry. Doug.

MR. GROUT: I have just a couple of questions for Ashton, and then a comment about a part of our problem statement. I'll go with a couple questions first. One of the things that I understand that the reason we're putting forward an Option 3.1 harvest reporting requirement, primarily is because not all states have access to the federal vessel monitoring system pre-reports, pre-landing reports; is that the case?

MS. HARP: Yes. I did put in kind of the starter text to this alternative that NOAA does have VMS pre-landing reports that kind of supply all of this information, but it is extremely restricted program to get into, and the states do not have access to this. But if the states did have access

to the VMS pre-landing reports then we wouldn't have to develop state-specific harvester reports.

MR. GROUT: Do you know if any state has had access to them at all, and if so how did they obtain that?

CHAIRMAN WHITE: Terry to that.

MR. STOCKWALL: Yes to that point, Mr. Chairman. State of Maine has access, Doug.

MR. GROUT: One of the things that is suggested actually in the document is that the Commission write a letter to NMFS requesting that the three states here have access to that. Maybe you could help us craft that letter with the language that the state of Maine used to get that access.

MR. STOCKWELL: I would be happy to. I do have one related comment. On the state landing reports last year that were used by the state of Maine in our emergency rule making was to monitor the rate of catch, not the quota. We relied on the GARFO quota monitoring program. We were just concerned that with the weekly limit that we had that it was something better than the meatball guesstimate of what was coming in. The industry did their reporting and it was very close.

MR. GROUT: Good, thank you. My second question is primarily to help clarify to the Section. When we go down to Item 3.1.6, clarification of days out procedure, this is something that we're just trying to clarify; some of the ways in which we make decisions and what are the ramifications if we can't come to a decision between the three states? If we can't come to a decision, what would be the status quo procedure? I'm not sure it's clear in the document from my standpoint. Because for example, if we don't establish a days out at our May meeting for Trimester 2, because we can't come to a decision. Under the status quo option, what would be the landing days?

MS. HARP: That is something the PDT discussed, and it's just not clear in the document. It's very hard to provide a kind of a status quo measure when there is no specific notation that it says it is seven available landing days; although we know that the Section has defaulted to seven available landing days in the past. But it is not specifically written in the document.

MR. GROUT: Okay, I took it that it said that if the states can't come to an agreement there will be no change to the landing days; we maintain the previous agreement.

MS. HARP: Once again, for those specifically, it is hard to even default to a status quo if the language is not there. It is kind of more saying to the public is, this information is not here so you might not want the status quo because it is not clear at all. This would kind of provide a method forward to clarify that. I guess the PDT kind of had trouble just kind of thinking about what the status quo was, when it wasn't specifically written out in the document.

MR. GROUT: My final comment and actually I think I sent you an e-mail about that; was just a minor, but I think important language change, a language change we need to put in the problem statement. It says in the problem statement, and let me get to it exactly; give me a minute. In the last sentence of the problem statement it says; the intent of this addendum is to develop additional measures that ensure the seasonal quota is spread out throughout the entirety of each trimester.

I am not sure that that is really the issue or the problem here. If you look at the beginning of the problem statement, we're referring to the issues with Trimester 2, because there is so much demand. That is when the peak demands for harvesting is, for lobster bait, excuse me, I would suggest.

While I don't think we need to limit the measures to just Trimester 2 that in the problem statement we say that it be spread throughout the entirety

of Trimester 2, as opposed to throughout the entirety of each trimester. Again, I don't see a problem with applying these measures to other trimesters if we so choose. But I think this will make the problem statement clearer and more appropriate.

CHAIRMAN WHITE: Thank you, Doug, I think that makes sense and we can make that change. Any other questions? Terry.

MR. STOCKWELL: Yes, to that point, Mr. Chairman. Doug and I have had conversation about this a couple times. I understand his intent, I just want to make sure it is an understanding of the Section and staff that these measures could be applied to other trimesters; should the Section so intend. At our working group meeting and prior we had some interest from industry to use some but not all of the measures in the third trimester, and I wouldn't want to preclude that by any kind of limiting language.

CHAIRMAN WHITE: David.

DR. PIERCE: Yes, regarding the statement of the problem. There is a reference to our using this addendum as a way to address excessive capacity within the fishery. My question is, the part of the document, the references are asking those questions that Ashton highlighted for us, asking those questions as part of a scoping process.

Are those specific questions that specific possible initiatives down the road; is that the one that is being offered up in a strange way to address excessive capacity? In other words, I'm just trying to find how this document overall addresses excessive capacity without our dealing with the differential trip limits for different permit holders. Again just Plan Development Team perspective, I would appreciate that on this question of addressing excessive capacity.

MS. HARP: I'm sorry; I was conferring with him about something. Just so I understand the

question, you wanted to know how the scoping questions relate to addressing excessive capacity in the fishery.

DR. PIERCE: Yes, addressing capacity to me suggests that we're somehow going to be limiting the effort within the fishery specific to permit holders; new permit holders. Again that is about the scoping. That is specific to the scoping. If it is specific to the scoping then perhaps the statement of the problem is incorrect.

Because the addendum will be addressing the other aspects of the problem, not excessive capacity; I want to make sure that if we adopt this or bring it to public hearing we don't confuse the public relative to what exactly are we proposing to deal with excessive capacity.

MS. HARP: Okay I understand completely. That is one of the challenges with including these questions in the document for Draft Addendum I. When in reality the management options that could come from these would be in a different management document. It would likely have a different problem statement; it would have different data relative to them.

Not to say that it would be completely different, but it would be a little bit different. I do understand what you're saying. This was just kind of at the request of the regional working group was to kind of include these scoping questions into the document, and then we could discuss them today. They could also be included as an appendix to Draft Addendum I, so they could still go out to the public for kind of scoping, but not confuse them as to say that it is a part of and completely related to everything else in this document.

CHAIRMAN WHITE: Terry.

MR. STOCKWELL: To that point, Mr. Chairman. Good question, David. One of the measures should it be adopted by the Section to move forward for public comment does address

capacity, and that is the landing restriction on transfers at sea. It has huge implications. The working group tried to wrap their head around the tiered weekly landing limit, and Ashton's report about the state of Maine's legislative action is spot on.

In my conversations with the Chair and with Ashton, we advocated for the thought of moving ahead for scoping to find out really what does the public think about this; and should Maine Legislature approve this it will help inform state of Maine's next steps. My perspective, it doesn't bind the Section into doing anything other than take it out for scoping. I am certainly not prepared at this time to select any preferred alternatives. I would like to hear more what the public has to say.

MR. GROUT: This is sort of a follow up to one of my questions. Where we're trying to clarify what the document says about our decision process, I would like to add a third alternative to the C options. I'm moving to include an option.

CHAIRMAN WHITE: Doug, excuse me. We're still in questions.

MR. GROUT: Oh, I'm sorry I'll wait, absolutely.

CHAIRMAN WHITE: I'll recognize you when we move out of questions; and we may be there. Are there any further questions? Seeing none; we're there, Terry.

MR. STOCKWELL: Mr. Chairman would you like to have a motion to move ahead the public hearing document that Doug can then amend?

CHAIRMAN WHITE: Well, I already told Doug that he was in the process of that and I would recognize him first and I will follow up and recognize you second.

MR. GROUT: Under the clarification process for default landing day scenario we have two options, one if we can't make a decision there be seven landing days, the other one would be zero

landing days. The way I see it there have been a number of times where we've already established landing days in the middle of the season, and if we couldn't come to a decision I would like to have an option in here that there would be no change to the current landing days.

I would move to include a third option under the C category called default landing day scenarios- no change to current landing days. Just a description of this is the default landing day scenario; and you don't have to put this in the motion, unless you want to, but the default landing day scenario until an agreement is reached is no change to the current number of allowable landing days. If I can get a second to this I will be glad to speak to it.

CHAIRMAN WHITE: Doug, question to you. In reading Option C2, doesn't that cover what you are trying to accomplish?

MR. GROUT: Mr. Chairman, no it doesn't because for example, if we decide to make changes. If we have a meeting, let's say in June we set, for example, three landing days. Then we come to July and we have a meeting to potentially change those landing days. You would have an alternative to maintain the existing landing days, as opposed to having seven landing days or zero landing days as whatever the default option is.

I think we need to have the capability of doing that. The same thing happens, there is a variety of times when I think it would be unofficial that we have the same landing days as opposed to if we were going to choose three, have zero landing days; or seven.

CHAIRMAN WHITE: Ashton.

MS. HARP: I just want to point out one thing, and you may have already seen this. But I just want to do it, because the header of Option C2 is a little bit deceiving because it says seven landing days. The PDT did change the language under

that to specifically say like this is what would be the regulations we would follow.

It says, the default landing day scenario until an agreement is reached, is the previously agreed upon number of landing days; so to say if we already agreed on three landing days and we can't make a decision, then we're going to keep three, or seven landing days if the number of landing days has not been set for the current fishing season.

If we immediately start out on June 1st, and we can't decide landing days, then it will be seven. I just wanted to see if that kind of covers the other Option C that you said, because there is actually like two options included in Option C2, it is not just seven.

MR. GROUT: I guess the header fooled me; the description of it doesn't make it clear. Maybe if that is the case that we come up with a more clear header to this, because clearly saying it would be seven landing days in the header does not get into the nuance of if we already have some in place it would be the existing landing days. Because the way I look at things, before we set the initial landing days in June, our landing days are zero, because we have no quota in there. We have no quota in Period 1.

CHAIRMAN WHITE: Do you want to go forward with this motion?

MR. GROUT: It is already made and seconded, and we can just vote on it one way or the other. I mean I think it's already been brought to the board and it's been seconded.

CHAIRMAN WHITE: If you're willing to withdraw and the seconder is willing to withdraw and there is no objection to that then we don't have to vote.

MR. GROUT: Dave, are you willing to withdraw?
DR. PIERCE: Yes.

MR. GROUT: Okay, thank you, and I'll withdraw.

CHAIRMAN WHITE: Are there any objections?
Toni.

MS. TONI KERNS: I just have a quick question. In reading this, do we need to define what previously agreed means? Just thinking about it out loud, is previous mean from the year before or is it just what the three states come up with earlier in the year?

MS. HARP: I did think about that. We could say, as Doug had said, we could say existing landing days instead of previously agreed upon; but also to touch on your point, I did put or seven landing days if the number of landing days has not been set for the current fishing season. I was thinking that specifically if it's a June 1st then we're starting at nothing. We wouldn't go back to Trimester 3 for Trimester 2.

MR. STOCKWELL: Are you ready for a motion, Mr. Chairman? I move to approve Draft Addendum I for public comment with the exception of Section 3.2; items reviewed by the PDT but not developed.

CHAIRMAN WHITE: Dennis. Do you want to speak to it, Terry?

MR. STOCKWELL: Now is not the time to cherry-pick our alternatives. Let's take it out, hear what the public has to say, meet back in May and make an informed decision at that point.

DR. PIERCE: I have no problem bringing it out; we've had some good discussion already. I hope the answers to my questions can be provided; notably the number of real participants in this fishery. If we're voting on this however, I want to suggest a clarification; and that is in the Section 3.1.6 clarification of days out procedure.

All the different options pertaining to the days out program, very specifically stated the days out program. However, when we go to Section 3.1.2 we note that if we select one of the options within that section we are replacing the days out,

all right so no longer does days out have any relevancy.

I just wanted to highlight for the benefit of Ashton, so that when this document is presented and eventually revised it would reflect the fact that those particular options for clarifications of days out procedure now have to have another way of being described, because it is no longer days out; because the options in 3.1.2, some of them anyway, pertain to no fishing days.

Now the no fishing days isn't highlighted specifically in the text, but the text in some of the options; maybe just one. You can't fish on those days. It is not just a day out of landing; it is no fishing, no landing. I just wanted to highlight that as a need for eventual clarification depending upon how we eventually decide to approve this document.

CHAIRMAN WHITE: Any other comment from the Section? Seeing none; any members of the public like to speak? Seeing none; do we need caucus time? A minute to caucus, okay are we ready to vote? I'm going to take a shot here. **Are there any objections to this motion? Seeing none; it passes unanimously.** Thank you. Any other business that is not on the agenda? Doug.

MR. GROUT: Per my previous discussion here about the states getting access to the pre-trip notification on VMS. **I would like to make a motion that the Herring Section writes a letter to the GARFO Office requesting the three states involved in this, Massachusetts, New Hampshire and Maine be granted access to the pre-trip notification; VMS data for the purpose of managing the fishery.**

CHAIRMAN WHITE: Is there a second? David. Is there any objection to that motion? Toni.

MS. KERNS: Before you find out if there is objection can we perfect it slightly and just say move that the Herring Section recommend to the Policy Board a letter be written?

CHAIRMAN WHITE: Thanks for that correction. Is there any objection to the new motion? **Seeing none; the motion is passed, and Bob will be sending out a letter, any other new business? David.**

DR. PIERCE: Yes, under Section 3 in the document, Table 12. The Plan Development Team, Ashton notably highlights for us that part of the document, or those parts of the document that may require the National Marine Fisheries Service involvement; notably implement state vessel landings reports, prohibit landings of herring caught in Area 1A during a day out of the fishery, and landing restrictions on transfers at sea.

I'm assuming that we will be getting from the National Marine Fisheries Service, I guess this can also be by way of Vincent, the extent to which the National Marine Fishery Service, hence the Council, needs to be involved in the discussion of and implementation of these specific management alternatives.

It is still not clear to me the nature of the involvement of the Service and the Council. I don't think I need to make a motion to this effect, but can we be assured that we'll be asking the National Marine Fisheries Service for it to weigh in on these particular issues; so we know before we get to public hearings that we can do these things, independent of the councils and the Service.

MS. HARP: Yes, we will be working with them as we have throughout the just drafting this document, just even getting the data. They are very aware of what's going on. I will say that the way that we worked out some of the alternatives, some of them that initially would require NMFS involvement don't really require them as much.

As far as like the prohibit landings of herring caught during a day out of the fisheries, we changed it to landings. How it was originally worded that was like an alternative. At the last

meeting it would have required kind of involvement from the National Marine Fisheries Service; because it said to modify the program to restrict fishing days.

The PDT met and thought, well that would definitely involve NMFS involvement and that would take a long time, so the Commission kind of changed it to restricting landings for that. Some of these we have crafted so that we know that they could be implemented, but it still would be helpful to have the coordination of NMFS.

DR. PIERCE: With that said, I notice that one of the options does specifically relate to no fishing days, and I believe the state of Maine and Massachusetts for that matter and New Hampshire, did go with no fishing days in 2016; as an important change in our approach. If indeed we are talking about and we do adopt, a prohibition on fishing days as well as landing; and I think we're going to have to.

Then that probably would require the services involvement, I think. But again, I can't speak for the Service or for the Council for that matter in this particular instance, because it hasn't been delved into by either the Full Council or the Service. Again, I am stressing the need for us to know when the Service would say, specifically the service, when they would say right; we don't need any federal involvement. The states can handle this issue by themselves.

I suspect we can, because we did it in 2016. But I don't think the Service spoke up on that and expressed an opinion as to whether or not it was something we could have done without federal involvement. Anyways, I made my case and I hope we can get all of that clarified before the hearings.

CHAIRMAN WHITE: Vincent.

MR. BALZANO: David, to kind of answer your statement or question is, my background information that I had gotten from Tom, our

Executive Director was that Table 12 was the area of the document that gave them great concern; and that our plans are to review it at the April Council meeting and then report back. Other than that I will report to Tom and to the Council the concerns, and maybe they can expedite it. We do have a couple committee meetings between there and then, but that is still not Full Council vetting.

CHAIRMAN WHITE: Doug and then Terry.

MR. GROUT: Once this document goes out for public comment, I fully expect that National Marine Fisheries Service will be providing comments on this. I think this is the mechanism; our formal public comment process is a mechanism for them to provide input at the National Marine Fisheries Service level.

Just to clarify, Dr. Pierce, we still don't have the ability to restrict fishing. In the state of New Hampshire our authority does not extend out into federal waters; but according to our legal counsel, we can restrict landing a product that was caught on a no fishing day, because it doesn't prevent them from fishing.

They can fish out in federal waters on a no fishing day; they just can't land in New Hampshire under one of these provisions; if the product was caught on a no fishing day. I think that's a very important distinction here if we're moving forward with this process that we try to emphasize, and I believe that's the way it's written in the document; that we're prohibiting landing of a product that was caught on a no fishing day in our particular state. It doesn't mean that the vessel could go to Rhode Island or New Jersey and land that product.

CHAIRMAN WHITE: Terry.

MR. STOCKWELL: I'll be brief. Just to remind the Section that the motion that was originally made when we were all in Bar Harbor was a result of a series of meetings that Maine DMR had with our herring fishery. About half of the proposed

management alternatives were those that were implemented in Maine last year through the Commissioner's emergency rule making authority.

The other half were measures proposed by Maine industry, so may require NMFS involvement may not. As I said earlier, much of the angst that came from the TC and our federal partners were related to the landing reports, and we clearly did not use them for monitoring the quota.

MS. ALISON MURPHY: My name is Ali Murphy from the National Marine Fisheries Service. I just wanted to comment that NMFS supports the goals and objectives of the Section's addendum here; and that we're following what the Section is doing and as Mr. Grout pointed out, we do intend to provide comment during the public comment period on any issues that the National Marine Fisheries Service thinks there are with any of the options. I just wanted to say that we are tracking the options for consistency with the federal plan. One other point if I may make on the previous motion that was just up on the screen. I believe that letter would need to go to our Office of Law Enforcement and not to the GARFO Office. If it does come to the GARFO Office though, we can pass that along to our Office of Law Enforcement.

ADJOURNMENT

CHAIRMAN WHITE: Thanks for that clarification. Any other business? Seeing none; motion to adjourn. Seeing no objection; we're adjourned.

(Whereupon, the meeting was adjourned at 9:25 o'clock a.m., January 31, 2017.)

Atlantic States Marine Fisheries Commission

DRAFT ADDENDUM I TO AMENDMENT 3 TO THE ATLANTIC HERRING INTERSTATE FISHERY MANAGEMENT PLAN FOR PUBLIC COMMENT



ASMFC Vision: Sustainably Managing Atlantic Coastal Fisheries

Atlantic States Marine Fisheries Commission Seeks Your Input on Atlantic Herring Management

The public is encouraged to submit comments regarding this document during the public comment period. Comments will be accepted until **5 p.m. on April 7, 2017**. Regardless of when they were sent, comments received after that time will not be included in the official record.

You may submit public comment in one or more of the following ways:

1. Attend public hearings held in your state or jurisdiction.
2. Refer comments to your state's members on the Atlantic Herring Management Section or Atlantic Herring Advisory Panel, if applicable.
3. Mail, fax, or email written comments to the following address:

Ashton Harp
1050 North Highland St., Suite 200 A-N
Arlington, VA 22201
Fax: (703) 842-0741
aharp@asmfc.org (subject line: Draft Addendum I)

If you have any questions please call Ashton Harp at 703.842.0740.

Commission's Process and Timeline

| | |
|----------------------------------|---|
| October 2016 | Atlantic Herring Section Tasks PDT to Develop Draft Addendum I |
| Nov 2016 - Jan 2017 | PDT Develops Draft Addendum I for Public Comment |
| February 2017 | Atlantic Herring Section Reviews Draft Addendum I and Considers Its Approval for Public Comment |
| Feb 8 - April 7, 2017 | Section Solicits Public Comment and States Conduct Public Hearings |
| May 2017 | Section Reviews Public Comment, Selects Management Options and Considers Final Approval of Addendum I |
| TBD | Provisions of Addendum I are Implemented |

Draft Addendum I for Public Comment

1. Introduction

The Atlantic States Marine Fisheries Commission (ASMFC) is responsible for managing Atlantic Herring (*Clupea harengus*), under the authority of the Atlantic Coastal Fisheries Cooperative Management Act (ACFMA). The U.S. Atlantic herring fishery is currently managed as a single stock through complementary fishery management plans (FMPs) by ASMFC and the New England Fishery Management Council (NEFMC). ASMFC has coordinated interstate management of Atlantic herring in state waters (0-3 miles) since 1993. Management authority in the exclusive economic zone (EEZ, 3-200 miles from shore) lies with the NEFMC and National Marine Fisheries Service (NMFS).

The stockwide annual catch limit (ACL) is divided amongst four distinct management areas: inshore Gulf of Maine (Area 1A), offshore Gulf of Maine (Area 1B), Southern New England/Mid-Atlantic (Area 2), and Georges Bank (Area 3). The Area 1A fishery is managed by ASMFC's Atlantic Herring Section (Section), which includes representatives from Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York and New Jersey.

The Section meets annually to distribute the Area 1A sub-ACL seasonally and determine the amount of landing days per week—these are the primary effort controls in the Area 1A fishery. Since 2009, the Section has split the Area 1A sub-ACL into trimesters (Table 1).

Table 1. Current seasonal quota allocation of the Area 1A sub-ACL

| | | |
|-------------|-------------------------|-----------------|
| Trimester 1 | January 1 - May 31 | 0% ¹ |
| Trimester 2 | June 1 – September 30 | 72.8% |
| Trimester 3 | October 1 – December 31 | 27.2% |

At its October 2016 meeting, the Section initiated Draft Addendum I to Amendment 3 of the Atlantic Herring FMP to consider alternative management measures in order to improve the performance of the Area 1A fishery. The proposed effort controls are designed to control the rate of Area 1A catch so the seasonal quota can be spread throughout the entirety of a trimester, specifically Trimester 2. Prior to each trimester, Section members from states adjacent to Area 1A (Maine, New Hampshire and Massachusetts), with input from stakeholders, have met to set the number of consecutive landings days per week via a Days Out Meeting. Fishery managers adapt these measures each year to provide herring between June and December, when demand for lobster bait is high and fishermen can sell their herring catch for premium value.

¹ NMFS set a seasonal Area 1A sub-ACL division of 0% from January-May in the 2013-2015 and 2016-2018 specifications.

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2. Overview

2.1 Statement of the Problem

The Area 1A sub-ACL is divided seasonally to meet the needs of the fishery and the bait market. The majority of the sub-ACL is allocated to the months of June – September (Trimester 2) when demand for lobster bait is highest. During the last two fishing years, the Area 1A Trimester 2 fishery has harvested herring at a rate that if left unrestricted would exceed the seasonal quota in weeks, not months. This increase in Area 1A fishing effort and vessel capacity is in reaction to a significant decrease of readily available herring in Area 3. Area 3 herring fishermen have reported finding some Atlantic herring schools, but in deep waters and intermixed with haddock schools.

The Atlantic Herring Section has attempted to spread the Trimester 2 quota throughout each season utilizing a series of in-season, reactive days out management measures on behalf of the Commission. Given the evolving nature of the fishery these efforts have proved to be ineffective. In 2016, the state of Maine implemented measures that were more restrictive than those of the Commission. The intent of this addendum is to develop additional measures that ensure the seasonal quota is spread throughout the entirety of Trimester 2, are consistent between the states, and address excessive capacity.

2.2 Background

2.2.1 Area 1A Effort Controls

Effort controls are the primary focus of this addendum. The historical and current effort controls are summarized below.

History of Area 1A Effort Controls

The days out management measures, first implemented in 1999 via Amendment 1 to the Atlantic Herring FMP, established fixed days out of the fishery relative to harvest levels. It was called a 'day out' because a vessel could not land or fish on the designated days out. For example, Friday, Saturday and Sunday were no landing/fishing days when 75% of the total allowable catch was expected to be exceeded; at 90%, Monday also became a no landing/fishing day. Amendment 2 (2006) removed the fixed landing days and allowed Section members to decide the specific days out of the fishery, as long as they were consecutive days. Consecutive days are seen as more effective because the fishery has to wait a period of time before resuming fishing efforts.

In the 2007 and 2008 fishing years there was a bait shortage due to a reduced Area 1A quota and increased effort, including an increase in the number of carrier vessels. The Section took action via Addendum I to Amendment 2 (2009) by creating seasonal quotas (bi-monthly periods or trimesters) to control effort and distribute the quota seasonally. In addition, a process to determine days out of the fishery was established, and the prohibition on fishing during a day

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out was removed due to jurisdictional concerns from the ASMFC Law Enforcement Committee (LEC). Specifically a 2009 LEC memo states the vast majority of Area 1A fishing takes place in federal waters where state officers have no authority to enforce ASMFC at-sea fishing restrictions.

Current Area 1A Effort Controls

The Section meets annually to distribute the Area 1A sub-ACL seasonally and determine the amount of landing days per week—these are the primary effort controls in the Area 1A fishery. Since 2009, the Section has split the Area 1A sub-ACL into trimesters (Table 1). The majority (72.8%) of the Area 1A sub-ACL has been allocated during the months of June through September (Trimester 2). This time period largely overlaps with the peak months for lobster landings (Figure 1), where herring is the most widely used bait type.

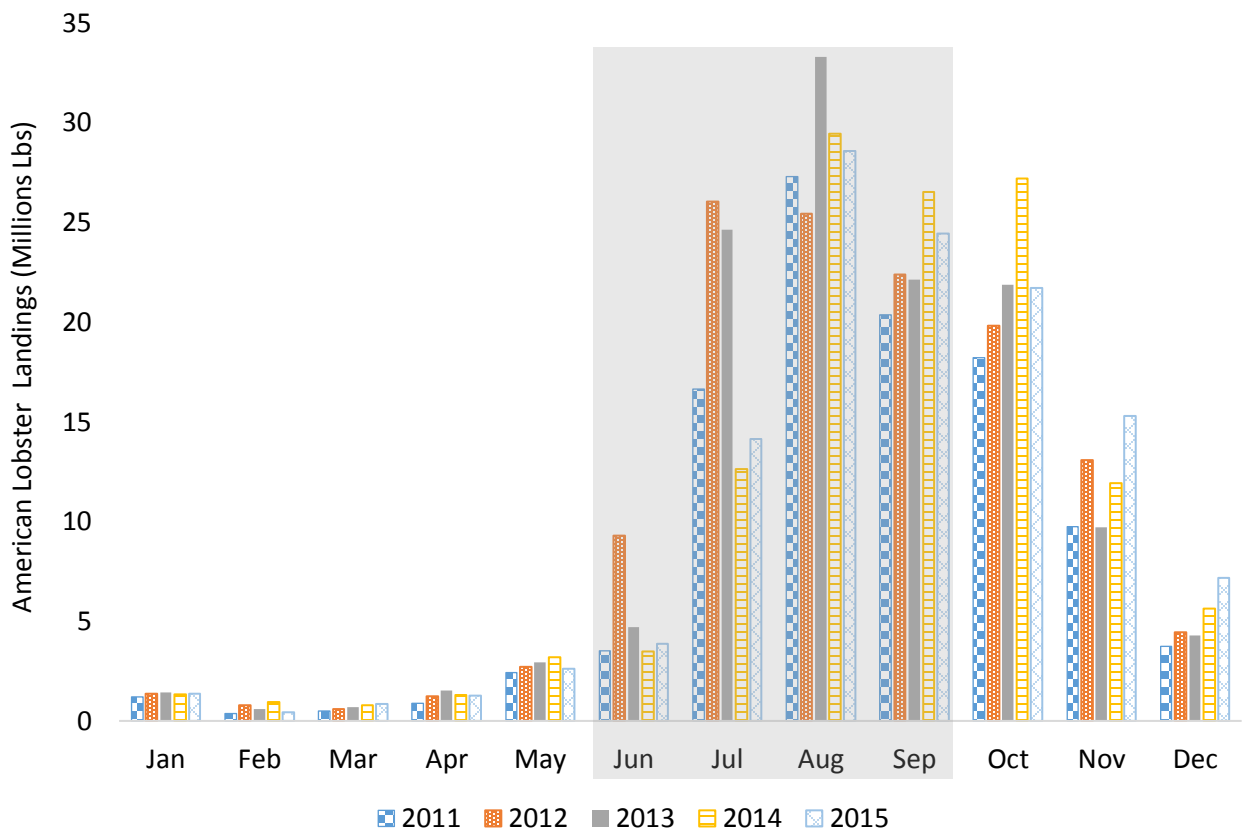


Figure 1. Monthly landings of American lobster in Maine (2011-2015). The months within Trimester 2 of the Atlantic Herring Area 1A fishery are shaded in grey. Source: ACCSP

Table 2 shows the historical landing days during Trimester 2 of the Area 1A fishery. At the start of the season, managers make planned landing day adjustments based on fishery performance from previous years. At times, managers have to make reactionary changes in-season to increase or decrease the landings days based on the amount of seasonal quota available.

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Table 2. Area 1A landing days during Trimester 2 (2011-2016)

| Year | Trimester 2 | Landing Days | Comments |
|------|--|--------------|--|
| 2011 | June 1 – June 26 | 2 | 3 in-season planned changes; 1 reactionary |
| 2011 | June 27 – July 17 | 3 | |
| 2011 | July 18 – Aug 7 | 4 | |
| 2011 | Aug 8 – Sept 30 (<i>reactionary</i>) | 7 | |
| 2012 | June 1 - 30 | 2 | 3 in-season planned changes |
| 2012 | July 1 – 14 | 4 | |
| 2012 | July 15 – Sept 30 | 7 | |
| 2013 | June 1 – Sept 8 | 7 | 1 reactionary in-season change |
| 2013 | Sept 9 – 30 (<i>reactionary</i>) | 0 | |
| 2014 | June 1 – July 6 | 5 | 1 reactionary in-season change |
| 2014 | July 7 – Sept 30 (<i>reactionary</i>) | 7 | |
| 2015 | June 1- July 5 | 5 | 2 in-season planned changes; 1 reactionary |
| 2015 | July 6 – Aug 27 | 7 | |
| 2015 | Aug 28 – Sept 30 (<i>reactionary</i>) | 0 | |
| 2016 | June 1 – 30 | 3 | 3 in-season planned changes; 2 reactionary |
| 2016 | July 1-14 | 4 | |
| 2016 | July 15-23 | 5 | |
| 2016 | July 24 – Sept 17 (<i>reactionary</i>) | 2 | |
| 2016 | Sept 18 – Sept 30 (<i>reactionary</i>) | 0 | |

In 2011, 2012 and 2014 managers gradually increased the amount of landing days such that Trimester 2 ended with seven landing days to ensure the seasonal quota was harvested. In 2013, the season opened with seven landing days and was restricted to zero landing days at the beginning of September.

In 2015, managers planned to gradually increase the amount of landing days throughout the summer, however due to a surge in August landings the fishery was restricted to zero landing days in September.

In 2016, managers planned to gradually increase the number of landing days during July, however, higher than expected landings in June resulted in landing day restrictions in mid-July and mid-September on behalf of the Commission. Maine’s Department of Marine Resources (DMR) applied additional measures to those vessels landing in Maine, which included a weekly landing limit, fishing day restrictions, transfer at sea restrictions, etc.

For more information on historical Area 1A effort controls and the 2015/2016 fishing season, refer to Harp (2016) white paper.

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2.2.2 Fishing Effort

Landings

Atlantic herring vessels use purse seines, single midwater trawls, midwater pair trawls, small mesh bottom trawls and fixed gear for fishing gear, with the purse seiners harvesting the majority of Area 1A landings in recent years (Table 3a). Vessels using single and paired midwater trawls are prohibited from fishing for Atlantic herring in Area 1A from June 1 – September 30 of each fishing year. Some herring vessels use multiple gear types during the fishing year.

Single and pair trawl vessels generally fish in all areas (October-December in Area 1A), though Areas 1A and 1B account for less of the gear types overall landings in recent years (Table 3c). Bottom otter trawl, which includes small mesh² bottom trawl, has access to the fishery beginning July 15—landings account for less than 1% of Area 1A landings (Table 3a, 3b). In New Hampshire, small mesh bottom trawl vessels generally target whiting, herring is considered a secondary species and targeted if there are available landing days and a market.

Table 3a. Overall Atlantic herring landings (mt) by fishing gear type and year in Area 1A.

Source: ACCSP

| Gear Type | 2012 | 2013 | 2014 | 2015 | % of overall total landings |
|------------------------------|---------------|---------------|---------------|---------------|------------------------------------|
| Bottom Otter Trawl | 356 | 106 | 100 | 117 | 1% |
| Single Midwater Trawl | 270 | 998 | 1,164 | 2,224 | 4% |
| Midwater Pair Trawl | 3,716 | 5,504 | 4,534 | 4,155 | 15% |
| Purse Seine | 19,191 | 23,125 | 27,151 | 23,007 | 80% |
| Other | 4 | 8 | 10 | 28 | 0% |
| Total | 23,546 | 29,741 | 32,957 | 29,531 | |

² Small mesh is defined as smaller than 6.5" square or diamond mesh in the cod end of the net.

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Table 3b. Trimester 2 (June – September) Atlantic herring landings (mt) by fishing gear type and year in Area 1A. Source: ACCSP

| Gear Type | 2012 | 2013 | 2014 | 2015 | % of overall total landings |
|------------------------------|---------------|---------------|---------------|---------------|------------------------------------|
| Bottom Otter Trawl | 347 | 95 | 89 | 107 | 0.8% |
| Single Midwater Trawl | 0 | 0 | 0 | 0 | 0% |
| Midwater Pair Trawl | 0 | 0 | 0 | 0 | 0% |
| Purse Seine | 17,524 | 19,984 | 22,665 | 20,275 | 99% |
| Other | 4 | 7 | 8 | 28 | 0.05% |
| Total | 17,875 | 20,087 | 22,762 | 20,409 | |

Table 3c. Trimester 3 (October - December) Atlantic herring landings (mt) by fishing gear type and year in Area 1A. Source: ACCSP

| Gear Type | 2012 | 2013 | 2014 | 2015 | % of overall total landings |
|------------------------------|--------------|--------------|--------------|--------------|------------------------------------|
| Bottom Otter Trawl | 9 | 9 | 10 | 10 | 0% |
| Single Midwater Trawl | 270 | 998 | 1,083 | 2,224 | 14% |
| Midwater Pair Trawl | 3,703 | 4,992 | 4,534 | 4,155 | 51% |
| Purse Seine | 1,624 | 3,132 | 4,359 | 2,733 | 35% |
| Other | 0 | 0 | 0 | 0 | 0% |
| Total | 5,607 | 9,130 | 9,986 | 9,121 | |

Number of Vessels

In 2016, there were two additional purse seine vessels directing on Atlantic herring when compared to 2015 (4a-c, 5a-b). As a high volume fishery, two additional vessels greatly increases the capacity of the fishery. The following tables illustrate the number of vessels in Area 1A by gear type (4a-c) and the number of vessels directing on herring by federal permit category (5a-b).

In Area 1A from June to September, the overall number of active permits has generally declined, with a small increase in 2016 (Figure 2). The Area 1A sub-ACL has been approximately 30,000 metric tons during this time period, therefore the total removals by permit is increasing, due to a decreasing trend in participation. Given the change in price per pound (Figure 3), this translates into a larger ex-vessel revenue per permit. In 2013, average revenue was \$600,000 per permit, compared to \$1.4 million per permit in 2016.

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Table 4a. Total number of active herring vessels by gear type in Area 1A.

| Gear Type | 2012 | 2013 | 2014 | 2015 | 2016¹ | Trends |
|---------------------------|-------------|-------------|-------------|-------------|-------------------------|------------------------------|
| Bottom Otter Trawl | 30 | 19 | 18 | 15 | 13 | Decreasing |
| Midwater Trawl | 9 | 10 | 9 | 11 | 7 | Fluctuating, recent decrease |
| Purse Seine | 8 | 8 | 6 | 5 | 7 | Fluctuating, recent increase |
| Other | 48 | 31 | 42 | 39 | 20 | Decreasing |

¹ 2016 data are preliminary

Table 4b. Number of active herring vessels by gear type in Area 1A during Trimester 2.

| Gear Type | 2012 | 2013 | 2014 | 2015 | 2016¹ |
|---------------------------|-------------|-------------|-------------|-------------|-------------------------|
| Bottom Otter Trawl | 29 | 18 | 15 | 12 | 11 |
| Midwater Trawl | 0 | 0 | 0 | 0 | 0 |
| Purse Seine | 8 | 8 | 6 | 5 | 7 |
| Other | 18 | 13 | 22 | 23 | 17 |

¹ 2016 data are preliminary

Table 4c. Number of active herring vessels by gear type in Area 1A during Trimester 3.

| Gear Type | 2012 | 2013 | 2014 | 2015 | 2016¹ |
|---------------------------|-------------|-------------|-------------|-------------|-------------------------|
| Bottom Otter Trawl | 5 | 6 | 4 | 5 | 6 |
| Midwater Trawl | 9 | 10 | 9 | 11 | 7 |
| Purse Seine | 5 | 7 | 5 | 5 | 4 |
| Other | 3 | 4 | 10 | 6 | 5 |

¹ 2016 data are preliminary

Table 5a. Active¹ Herring Vessels by Federal Permit Category and Gear Type, Permit Year 2015 (May-Apr)

| Permit Category | Purse Seine | Other² | Midwater Trawl | Bottom Trawl |
|------------------------|--------------------|--------------------------|-----------------------|---------------------|
| A and BC | 5 | | 14 | 7 |
| C | | | | 11 |
| D and DE | | 25 | | 38 |

Source: GARFO Permit and DMIS database as of 2017-01-03

¹Permit active if reporting greater than 1 pound of Atlantic herring between May 1, 2015 and April 30, 2016

²Other gear types include hand, gillnet, trap, etc.

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Table 5b. Active¹ Herring Vessels by Federal Permit Category and Gear Type, Permit Year 2016³ (May-Dec), Preliminary Data

| Permit Category | Purse Seine | Other ² | Midwater Trawl | Bottom Trawl |
|-----------------|-------------|--------------------|----------------|--------------|
| A and BC | 7 | | 14 | 7 |
| C | | | | 9 |
| D and DE | | 16 | | 26 |

Source: GARFO Permit and DMIS database as of 2017-01-12

¹Permit active if reporting greater than 1 pound of Atlantic herring between May 1, 2016 and December 31, 2016

²Other gear types include hand, gillnet, trap, etc.

³ 2016 data are preliminary

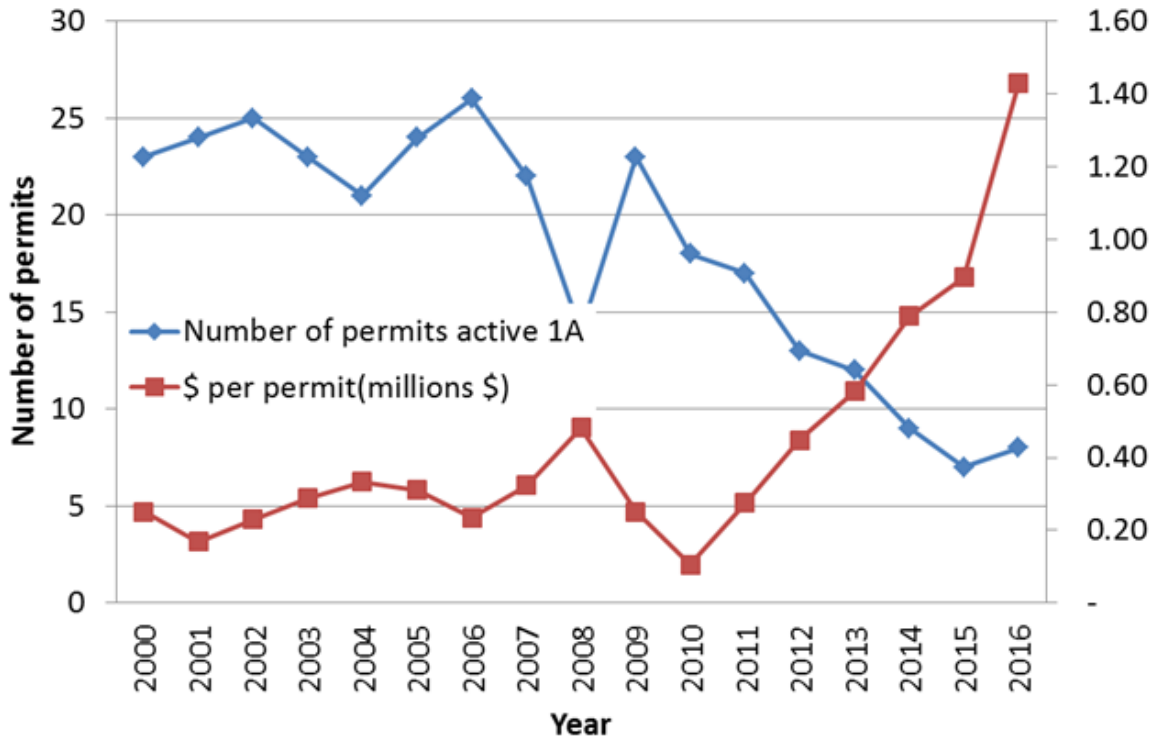


Figure 2. Number of active permits and average total revenue (average catch times average price/lbs summed) in Area 1A, June through September by year. The data was queried to include the number of active permits that harvested >6,600 lbs to represent the directed fishery.

2.2.3 Market

During June through October of the 2012-2015 fishing season, the average price of herring per metric ton in Area 1A was slightly more than \$300. In 2016, the per metric ton price peaked at approximately \$600 (Figure 3). As described in Section 2.2.1 and in a herring white paper (Harp, 2016), the 2016 Area 1A Atlantic herring fishing season opened in June to almost double the projected landings. For example, three weeks into June the fishery was projected to have harvested 1,300 mt, however 2,837 mt³ had been harvested. Similar to 2015 but earlier in the season, Area 3 landings became stagnant and Area 1A landings increased

The supply of herring to the bait market during June – October has traditionally come from harvest in Area 1A and 3, collectively these areas comprise more than half of the Atlantic herring annual catch limit. During June-August 2016, the primary source of Atlantic herring landings was from Area 1A only, however, the demand for herring in the summer months exceeds the allowable Area 1A catch limit. The shortage of herring throughout the summer months, when demand is highest, resulted in a two-fold increase in the average price per metric ton.

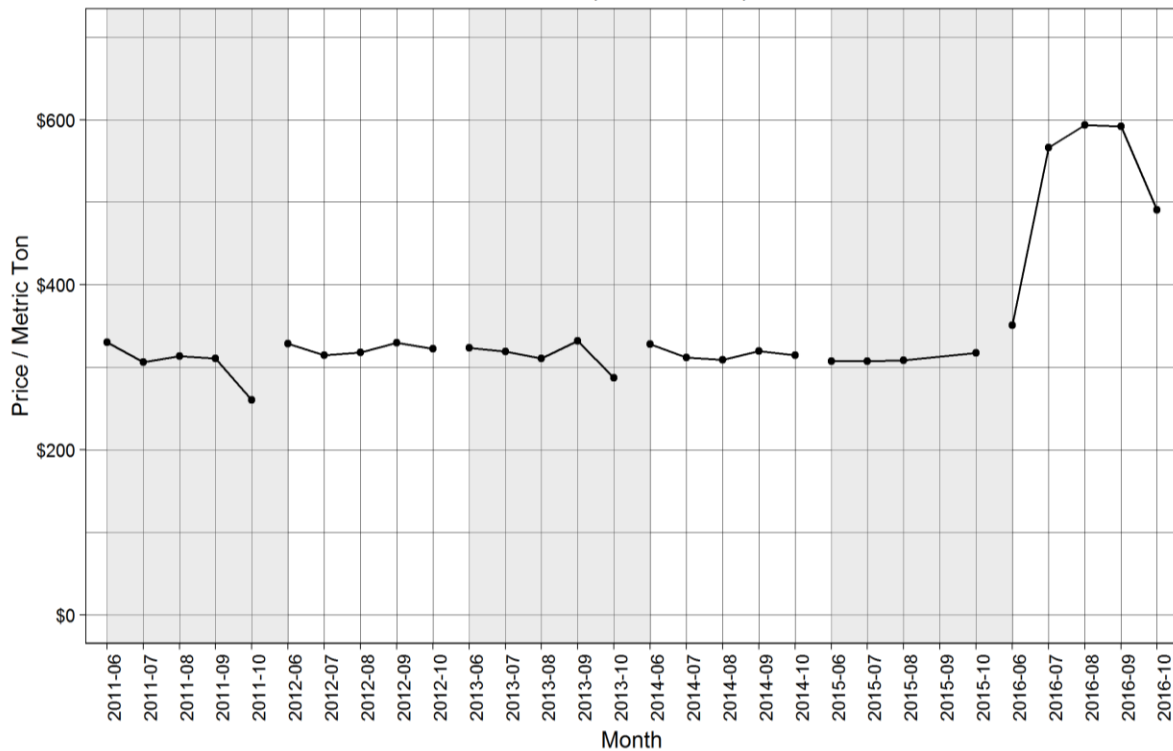


Figure 3. Atlantic Herring Area 1A Monthly Average Price per Metric Ton, June-October 2011-2016 (2010 dollars). Source: NMFS

³ Preliminary landings data

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2.2.3 Carrier Vessels and Transfers at Sea

Federal rules specify a carrier vessel is a vessel that has received herring from another vessel and will not report that catch as its own on its Federal Vessel Trip Report. A carrier vessel can have no gear on board capable of catching or processing fish and it cannot transport species other than herring or groundfish. A harvester vessel is a vessel that is required to report the catch it has aboard as the harvesting vessel on its Federal Vessel Trip Report.

Amendment 5 to the Federal Herring FMP, effective March 2014, provided more flexibility to vessels engaging in carrying activities. Prior to 2014, a vessel could become a carrier vessel if it had a letter of authorization (LOA) from the Regional Administrator. The LOA required a minimum 7-day enrollment period (i.e. time to process and issue the LOA) during such time the vessel could only act as a herring carrier, it could not fish for any species or transport species other than herring or groundfish. After 2014, a vessel can declare what activity it will be engaging in on a trip-by-trip basis (via VMS) rather than being required to remain in one activity for a week at a time.

Amendment 5 also established an At-Sea Herring Dealer Permit. If a carrier vessel intends to sell herring, instead of solely transporting herring to the dock, then a Federal At-Sea Herring Dealer Permit is required. In 2016, 5 permits were issued to carrier vessels, compared to 1 in 2015 (Table 6).

Table 6. Issued Atlantic Herring At-Sea Dealer Permits, 2012-2016 (Jan-Dec)

| | 2012 | 2013 | 2014¹ | 2015¹ | 2016¹ |
|--|-------------|-------------|-------------------------|-------------------------|-------------------------|
| At-Sea Atlantic Herring Dealer Permit | NA | NA | 0 | 1 | 5 |

Source: GARFO Permit database as of 2016-12-28

¹Atlantic herring at-sea dealer permits were implemented in Amendment 5 effective March, 2014

Amendment 5 to the Federal Herring FMP eliminated VTR reporting requirements for carrier vessels starting in 2014, therefore the number of carrier vessels and trips from 2014-2016 (Table 7) are incomplete and represent minimal amounts. Given these data constraints, the following are the minimum values for carrier activity in 2016; Area 1A had 3 carrier vessels that made 37 trips. In 2013, the last year carrier vessels were required to report activity on VTRs, there were 8 carrier vessels that made 110 trips—the fishery moved to zero landing days on September 9, 2013.

Dockside reports indicate vessels are harvesting herring on days out of the fishery and transferring harvest at-sea to carrier or larger harvester vessels until landing is permitted. The practice of fishing beyond the days that are open to landing is rendering the days out program less effective in controlling the rate of harvest.

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Table 7. Herring Carrier and Transfer and Receive at-Sea Vessels, 2012-2016 (May-Apr)

| | | 2012 | 2013 | 2014 ⁴ | 2015 ⁴ | 2016 ⁴ |
|-----------------------------|--|------|------|-------------------|-------------------|-------------------|
| All Management Areas | # of Potential Herring Carrier Vessels¹ | 16 | 19 | 22 | 19 | 19 |
| | # of Herring Carrier Vessels that Harvested Herring¹ | 6 | 8 | 10 | 9 | 7 |
| | Vessels with Transfer and Receive LOA³ | 44 | 42 | 39 | 35 | 44 |
| Area 1A | Vessels Acting as a Carrier in Area 1A² | 4 | 8 | 7 | 3 | 3 |
| | Area 1A Herring Carrier Trips² | 84 | 110 | 59 | 41 | 37 |

Source: GARFO Permit and VTR database as of 12/28/2016

¹Herring carrier vessels identified by Herring Carrier LOA issuance prior to 2014, or combination of LOA issuance and VMS declaration for 2014 and beyond that reported herring harvest on VTRs.

²Herring Area 1A activity determined by carrier trips NOT landing in NJ and NOT reporting menhaden species

³Transfer and Receive LOAs allow for transferring OR receiving herring at sea

⁴The implementation of Amendment 5 in March, 2014 eliminated VTR reporting requirements on carrier trips, precluding accurate activity counts for 2014-2016. However, some vessels continued to provide VTRs for carrier trips during these years, which are reflected above. It is important to remember the 2014-2016 activity counts are incomplete and represent minimum amounts.

2.2.5 Permits (Federal and State)

The majority of options under each management alternative are linked to federal permit categories; therefore the following summarizes categories and respective reporting requirements.

Federal Permit Categories to Harvest Herring

The vast majority of vessels in the Atlantic Herring Area 1A fishery are federally-permitted because Area 1A includes state and federal waters. The Federal Herring FMP established limited and open access programs in the herring fishery. There are five permit categories: 1) limited access permit for all management areas (Category A)⁴; 2) limited access permit for access to Areas 2 and 3 only (Category B); 3) limited access incidental catch permit for 25 mt per trip (Category C); 4) an open access incidental catch permit for 3 mt per trip (Category D); and 5) an open access incidental catch permit for 9 mt in Areas 2 and 3 only (Category E). Category B and

⁴ A vessel is eligible for an All Areas Limited Access Herring Permit (Category A) if it meets the history and landings criteria. To meet the history criteria the vessel must have been issued a Federal herring permit that was valid as of November 10, 2005. To meet the landings requirements the vessel and/or any vessel it replaced must have landed at least 500 mt of herring in any one calendar year between January 1, 1993, and December 31, 2003, as verified by dealer reports submitted to NMFS.

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E permitted vessels cannot fish in Area 1A and are not included in this addendum. Category A vessels comprise the majority of the directed Atlantic herring fishery in Area 1A (Table 8).

The following summarizes reporting requirements⁵ by permit category: limited access herring vessels are required to report herring catch daily via vessel monitoring systems (VMS), open access herring vessels are required to report catch weekly via the interactive voice response (IVR) system, and all herring-permitted vessels are required to submit vessel trip reports (VTRs) weekly. In addition, vessels⁶ must submit VMS pre-trip and pre-landing notifications, as well as a gear declaration. VTRs, in combination with observer data, are used in herring stock assessments, while a combination of dealer data, VTR, VMS, and observer data are used to track catch against herring annual catch limits and catch caps in the herring fishery

Table 8. Area 1A catch (metric tons) by federally-permitted vessels, 2012-2015

| Permit Category | | 2012 | 2013 | 2014 | 2015 |
|-----------------|---|--------|--------|--------|--------|
| Limited Access | A | 22,703 | 29,430 | 32,848 | 29,386 |
| | C | 668 | 263 | 39 | 77 |
| Open Access | D | 173 | 42 | 63 | 54 |

Since 2012, the number of vessels with a Category C or D permit have decreased annually and the number of vessels with a Category A permits have fluctuated (Table 9). In 2016, there were 22 active Category A vessels and 17 latent permits (Table 9).

Table 9. Fishing vessels with federal Atlantic herring permits, 2012-2016 (May-April).

| Permit Category | | 2012 | 2013 | 2014 | 2015 | 2016 ¹ |
|-----------------|---|--------------|--------------|--------------|--------------|-------------------|
| Limited Access | A | 42 (57.1%) | 39 (66.7%) | 40 (62.5%) | 42 (50%) | 39 (56.4%) |
| | C | 47 (31.9%) | 44 (29.5%) | 42 (23.8%) | 41 (26.8%) | 40 (22.5%) |
| Open Access | D | 2,065 (3.5%) | 1,957 (3.3%) | 1,838 (3.6%) | 1,762 (3.4%) | 1,684 (2.5%) |

Source: GARFO Permit database and DMIS as of 2016-12-23

is the total number of issued permits; () is the percentage that are active meaning they landed herring within that year.

¹ 2016 data are incomplete

⁵ As of 76 FR 54385; September 2011

⁶ All limited access herring vessels and vessels issued an Areas 2/3 Open Access Permit

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State Permits

The following provides an overview of state licenses/permits to take, land or sell herring by state (Table 10).

In Maine, all harvesters who catch 2,000 pounds or more Atlantic herring in any given week must possess an *IVR Herring Harvester Permit* on their *Commercial Pelagic and Anadromous Fishing License* issued by the Department of Marine Resources. In Maine waters, a harvester can only use purse seine or fixed gear to harvest herring.

In New Hampshire, a *Commercial Saltwater License* is required for the landing, sale and transport of marine species including, but not limited to, herring. Licenses are issued for the calendar year on an annual basis to the individual. A *Sea Herring Possession Permit* is required for the taking or landing of herring. Permits are issued for the calendar year on an annual basis to the individual or organization. In New Hampshire waters, the use of mobile gear (including purse seine and trawl) to catch finfish is prohibited.

In Massachusetts, all persons who land and sell fish (or any other living marine resources) in Massachusetts must have a *Commercial Fishing Permit* from the Division of Marine Fisheries. In addition, commercial fishermen who intend to land Atlantic herring must also obtain a *Sea Herring Endorsement* on their permit. While there is currently no limit to the number of commercial fishing permits or herring endorsements issued each year, a separate limited-entry *Coastal Access Permit* (CAP) is required to fish with trawl gear inside Massachusetts state waters, which also limits the maximum size of these vessels to 72 feet. This vessel size restriction, combined with a statewide minimum mesh size of 6 ½ inches, effectively prevents herring fishing in Massachusetts waters via midwater trawl or purse seine.

Table 10. Overview of permits to take, land, or sell herring by state

| State | Permit Type | # of Permits | |
|---------------|-------------------------------|--------------|------|
| | | 2015 | 2016 |
| Maine | Herring Landing Permit | 182 | 225 |
| New Hampshire | Sea Herring Possession Permit | 3 | 2 |
| Massachusetts | Sea Herring Endorsement | 175 | 180 |

Table 11. Number of herring harvesters with a state permit only (i.e., no federal permit), 2015

| State | 2015 |
|---------------|------|
| Maine | 121 |
| New Hampshire | 0 |
| Massachusetts | NA |

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3. Management Alternatives

At the October 2016 meeting, the Section proposed management alternatives for further consideration by the Atlantic Herring Plan Development Team (PDT). The PDT developed options for six management alternatives (Table 12) that could improve the stability of the fishery and stabilize the rate of harvest during the fishing season. The adoption of all six may not be necessary.

Table 12. Overview of Management Alternatives

| Management Alternatives | May Require NMFS Involvement | May Require ACCSP Involvement |
|---|------------------------------|-------------------------------|
| 1. Implement State Vessel Landing Reports | • | • |
| 2. Prohibit Landings of Herring Caught in Area 1A During a Day Out of the Fishery | • | |
| 3. Weekly Landing Limit Per Vessel | | |
| 4. Landing Restrictions on Transfers At-Sea | • | • |
| 5. Small-Mesh Bottom Trawl Fleet Days Out | | |
| 6. Clarify Days Out Procedure | | |

3.1 Alternatives Developed by the PDT

3.1.1 Harvester Reporting Requirements

States adjacent to Area 1A have monitored catch rates via a weekly landing report released by GARFO. Option B requires additional reporting on behalf of harvesters so states may have timelier reporting. Under Option B all harvesters would have to complete a state landing report (to be developed), in addition to federal reports. The complexity of the reporting system will depend on the other options chosen in this document. Additional time may be required to work with ACCSP to implement this option via eTrips. Full implementation may not be possible prior to the 2017 fishing season. The option also incorporates the existing federal reporting requirements into the interstate FMP.

Alternatively, if specific state representatives are granted access to the NOAA VMS pre-landing reports then additional state landing reports on behalf of harvesters would not be necessary. The Commission will send a letter to the National Marine Fisheries Service requesting access to VMS pre-landing reports.

This alternative proposes to modify “Timely Reporting of State Landings” in Section 4.2.5 of the Atlantic Herring FMP.

Draft Addendum I for Public Comment

Option A: Status Quo

States are required to implement weekly reporting by all non-federally permitted fishermen on Atlantic herring (including mobile and fixed gear).

Option B: Implement State Landing Report

If a vessel lands herring caught from Area 1A in a Maine, New Hampshire or Massachusetts port then the harvester must submit a state landing report. The state landing report is in addition to the federal reporting requirements. The reports must be submitted in 24-hr intervals for each day and must be submitted by 9:00 a.m. of the following day.

States will develop the format for the state landing report and the reporting system to aggregate the data. Data will be uploaded into ACCSP to ensure landings are not double-counted and confidentiality rules are upheld. The state vessel landing reports will be used to monitor the seasonal quota, transfers at sea and potentially the vessel weekly landing limits.

As specified in the federal Herring FMP, vessels with limited access herring permits must report catch (retained and discarded) of herring daily via VMS, unless granted an exemption. Daily Atlantic herring VMS catch reports must be submitted in 24-hr intervals for each day and must be submitted by 9:00 a.m. of the following day. Reports are required even if herring caught that day has not yet been landed.

In addition, an owner or operator of any vessel issued an open access permit for Atlantic herring that catches $\geq 2,000$ lb (907.2 kg) of Atlantic herring on any trip in a week must submit an Atlantic herring catch report via the IVR system for that week. The IVR reporting week begins on Sunday at 12:01 AM local time and ends Saturday at 12 midnight. Weekly Atlantic herring catch reports must be submitted via the IVR system by midnight, Eastern Time, each Tuesday for the previous week. Reports are required even if herring caught during the week has not yet been landed.

State law enforcement officials can report non-compliance with state and federal reporting requirements to the appropriate authorities.

3.1.2 Prohibit Landings of Herring Caught in Area 1A During a Day Out of the Fishery

Similar to the current spawning closures, vessels with a Category A Limited Access Permit or all harvesters, depending on the option, would be prohibited from landing herring caught from Area 1A on a day out of the fishery.

This alternative proposes to replace “Days Out” in Section 4.2.4.2 of the Atlantic Herring FMP.

Option A: Status Quo

Harvesters are prohibited from landing herring during a ‘day out’. In addition, vessels may only land once per calendar day on any day that is open to landing (not a ‘day out’).

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Vessels with an Atlantic herring permit are not prohibited from participating in other fisheries for other species in restricted areas during days out of the Atlantic herring fishery. Landing of herring taken from management areas without 'days out' restrictions will be allowed on 'days out' in Area 1A. Any vessel transiting an area closed to fishing with legally caught herring on board must have its fishing gear stowed.

During a 'day out', vessels participating in other fisheries may land an incidental catch of herring that does not exceed 2,000 pounds per trip. Vessels may not land more than 2,000 pounds of herring per day caught in an area closed to the directed herring fishing. Vessels transiting a closed area with more than 2,000 pounds of legally caught herring on board must have all seine and trawl gear stowed.

Fixed gear fishermen may remove and land herring from the gear (weirs and stop seines) on the days designated as a 'day out' of the fishery.

Option B: Modified Days Out Restrictions for Harvesters

Harvesters are prohibited from landing or possessing herring caught from Area 1A during a day out of the fishery. In addition, vessels may only land once per calendar day on any day that is open to landing (i.e., not a 'day out').

Vessels are not prohibited from participating in other fisheries for other species in restricted areas during days out of the Atlantic herring fishery. Landing of herring taken from management areas without days out restrictions will be allowed on days out in Area 1A. Any vessel transiting an area closed to fishing with legally caught herring on board must have its fishing gear stowed.

During a day out, vessels participating in other fisheries may land an incidental catch of herring that does not exceed 2,000 pounds per trip. Vessels may not land more than 2,000 pounds of herring per day caught in an area closed to the directed herring fishing. Vessels transiting a closed area with more than 2,000 pounds of legally caught herring on board must have all seine and trawl gear stowed.

Fixed gear fishermen may remove and land herring from the gear (weirs and stop seines) on the days designated as a day out of the fishery.

Option C: Days Out Restrictions for Vessels with a Category A Limited Access Herring Permit

Vessels with a Category A Limited Access Permit are prohibited from landing or possessing herring caught from Area 1A during a day out of the fishery. Vessels with a Category A Limited Access Permit may land once per calendar day on any day that is open to landing (i.e., not a 'day out').

Draft Addendum I for Public Comment

Vessels with a Category A Limited Access Permit are not prohibited from participating in other fisheries for other species in restricted areas during days out of the Atlantic herring fishery. Landing of herring taken from management areas without days out restrictions will be allowed on days out in Area 1A. Category A vessels transiting a closed area with more than 2,000 pounds of legally caught herring on board must have all seine and trawl gear stowed.

During a day out, vessels with a Category A Limited Access Permit participating in other fisheries may land an incidental catch of herring that does not exceed 2,000 pounds per trip. Vessels with a Category A Limited Access Permit may not land more than 2,000 pounds of herring per day caught in an area closed to the directed herring fishing. Vessels transiting a closed area with more than 2,000 pounds of legally caught herring on board must have all seine and trawl gear stowed.

Vessels with a Category C Limited Access Permit or a Category D Open Access Herring Permit may land on a day designated as a day out of the fishery. In addition, fixed gear fishermen may remove and land herring from the gear (weirs and stop seines) on the days designated as a day out of the fishery.

3.1.3 Weekly Landing Limit Per Vessel (Pounds)

The PDT expects a weekly landing limit, in addition to timelier landing reports (see Section 3.1.1), will stabilize the rate of landings in the fishery. However, weekly landing limits could increase the probability for slippage and discards given the large volume of fish captured in each set. States will need to develop a system for harvesters to declare into the Area 1A fishery. Additional staff time will be required to track landings by individual vessel and adjust the weekly landing limit based on the amount of vessels fishing in a given week. If more vessels declare intent to participate in this fishery than actually go fishing, the weekly landing limit per vessel could be overly restrictive and result in an underutilization of the Trimester 2 quota. Access to data, as described under Alternative 1 (State Landing Report), is required to enforce weekly landing limits.

Under Option B, vessels with a Category C Limited Access Permit are not restricted by an ASMFC weekly harvester landing limit. Category C vessels are restricted, as a condition of the federal permit, to catching 55,000 lbs of herring per day (385,000 lbs per week). Landings by a Category C vessel in the last 5 years have not exceeded 700 mt, in 2015 Category C vessels landed 77 mt from 11 vessels. In comparison to Option B, Option C would require additional staff time to monitor Category C landings, which comprise less than 1 percent of Area 1A landings.

This alternative proposes to create “Weekly Landing Limit” under Section 4.2.4 Effort Controls in the Atlantic Herring FMP.

Option A: Status Quo

No weekly landing limits.

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Option B: Weekly Harvester Landing Limit for Vessels with a Category A Limited Access Permit

Vessels with a Category A Limited Access Permit that land herring caught in Area 1A are subject to a weekly harvester landing limit (pounds) during Trimester 2 (June-September). Vessels landing in Maine, New Hampshire and Massachusetts are subject to the same weekly landing limit, regardless of port state.

Section members from Maine, New Hampshire and Massachusetts will meet in-person or conference call prior to the start of the fishing season to agree upon the weekly landing limit based on the number of participants in the fishery and the Trimester 2 seasonal quota. Harvesters are required to notify states of their intent to fish in Area 1A and the gear type they will be using at least 45 days prior to the start of the fishing season. If more vessels declare intent to participate in the fishery than actually go fishing, the weekly landing limit per vessel could be overly restrictive and result in an underutilization of the Trimester 2 quota. During the fishing season, states will agree on changes to the weekly landing limit, as necessary. ASMFC will publish the initial weekly landing limit and adjustments thereafter.

Vessels with a Category A Limited Access Permit are limited to one landing per 24-hour period. Harvester vessels must notify states according to state-specific protocol prior to landing. While the start time for the weekly landing limit restriction may vary by state, the states must implement the same landing restriction for the same consecutive days each week.

Option C: Weekly Harvester Landing Limit for Vessels with a Category A or C Permit

Vessels with a Category A or C Limited Access Permit landing herring caught in Area 1A are subject to a weekly harvester landing limit (pounds) during Trimester 2 (June-September). Vessels landing in Maine, New Hampshire and Massachusetts are subject to the same weekly landing limit, regardless of port state.

Section members from Maine, New Hampshire and Massachusetts will meet in-person or conference call prior to the start of the fishing season to agree upon the weekly landing limit based on the number of participants in the fishery and the Trimester 2 seasonal quota. Harvesters are required to notify states of their intent to fish in Area 1A and the gear type they will be using at least 45 days prior to the start of the fishing season. If more vessels declare intent to participate in the fishery than actually go fishing, the weekly landing limit per vessel could be overly restrictive and result in an underutilization of the Trimester 2 quota. During the fishing season states will agree upon changes to the weekly landing limit, as necessary. ASMFC will publish the initial weekly landing limit and adjustments thereafter.

Vessels with a Category A or C Limited Access Permit are limited to one landing per 24-hour period. Harvester vessels must notify states according to state-specific protocol prior to landing. While the start time for the weekly landing limit restriction may vary by state, the states must implement the same landing restriction for the same consecutive days each week.

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3.1.4 Landing Restriction on Transfers At-Sea

Option B would likely have significant economic impacts on vessels that operate solely as carrier vessels because they would no longer be allowed to participate in the Area 1A fishery. The PDT has concerns with the traceability of Option C because carrier vessels do not report catch on its Federal Vessel Trip Reports. Option C would require New Hampshire and Massachusetts to develop a reporting mechanism for harvesters to report transfers at sea and/or develop a carrier permit.

This alternative proposes to create “Landing Restriction on Transfers At-Sea” under Section 4.2 of the Atlantic Herring FMP.

Option A: Status Quo

A vessel with the proper permits can transfer or receive Atlantic herring at-sea.

Option B: Herring Caught In Area 1A Can Only Be Landed by the Respective Harvester Vessel

The vessel that catches herring (harvester vessel) is responsible for reporting all catch it has aboard. Harvester vessels are the only vessels that can land herring caught within Area 1A to a Maine, New Hampshire or Massachusetts port. A harvester vessel can only land the amount of herring from Area 1A that is reported on its respective Federal Vessel Trip Report.

Option C: Herring Carrier Vessels are Limited to Receiving At-Sea Transfers from One Harvester Vessel Per Week and Landing Once Per 24-Hour Period

All carrier vessels landing herring caught in Area 1A to a Maine, New Hampshire or Massachusetts port are limited to receiving at-sea transfers from one harvester vessel per week. All carrier vessels landing herring caught in Area 1A in any Maine, New Hampshire or Massachusetts port are limited to making one landing per 24 hour period.

A carrier vessel is a vessel that has received herring from another vessel and will not report that catch as its own on its Federal Vessel Trip Report. A carrier vessel can have no gear on board capable of catching or processing fish and it cannot transport species other than herring or groundfish. A harvester vessel is a vessel that is required to report the catch it has aboard as the harvesting vessel on the Federal Vessel Trip Report.

3.1.5 Small Mesh Bottom Trawl (SMBT) Fleet Days Out

The SMBT fleet harvests less than 1% of the Area 1A sub-ACL—access coincides with the July 15th opening of the Small Mesh Exempt Area 1. Due to size and hold capacity, the SMBT fleet can only fish on designated landing days, whereas the midwater trawl and purse seine fleets can fish on non-landing days and retain catch or transfer to a carrier vessel to be landed on a subsequent landing day.

The SMBT fleet has expressed interest in targeting herring for the recreational bait market over the weekend, however early week landing days are preferred by the large volume markets of

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the commercial bait industry. This alternative acknowledges current fishing practices and allows the SMBT fleet to have differential days out measures.

PDT notes there is no SMBT permit, therefore, this option requires state to develop a method for SMBT harvesters directing on herring to annually declare into the fishery. It also requires additional monitoring requirements on behalf of state agencies.

This alternative proposes to create “Days Out – Small Mesh Bottom Trawl” under Section 4.2.4 Effort Controls in the Atlantic Herring FMP.

Option A: Status Quo

Days Out program applies to all Atlantic herring harvesters.

Option B: Additional Days Out Program for Small Mesh Bottom Trawl Vessels with a Category C or D Permit

If a vessel meets the following criteria it is eligible for a different allocation of landing days and times that are separate from restrictions in Section 4.2.4.2 Days Out. A vessel must hold 1) a Category C Limited Access Permit or Category D Open Access Permit, and 2) use small mesh bottom trawl gear to harvest herring. To opt into the differential small mesh bottom trawl Days Out program, eligible harvesters must submit a small mesh bottom trawl gear declaration to notify states of their intent to fish in Area 1A with small mesh bottom trawl gear 45 days prior to the start of the fishing season. The annual gear declaration will apply to Trimester 2 (June through September). The process to determine the small mesh bottom trawl days out of the fishery is described under Section 4.2.4.1.

All other herring harvesters that do not meet this criteria must comply with the landing day restrictions under *Section 4.2.4.2 Days Out*. If a Category C vessel switches to non-SMBT gear then that vessel must comply with the landing day restrictions under *Section 4.2.4.2 Days Out*.

3.1.6 Clarification of Days Out Procedure

The proposed measures clarify existing regulations regarding the process to set the number of days out of the fishery. As stated, states have to agree on the number of days out of the fishery, but the type of agreement is not stated (consensus or vote). In addition, the landing day scenario if an agreement is not reached is not stated in the FMP.

Select up to two options under this alternative (B1, B2, or neither) and (C1, C2, or neither).

This alternative proposes to modify “Determination of Days Out” in Section 4.2.4.1 of the Atlantic Herring FMP.

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Option A: Status Quo

To prevent an early closure of a management area or sub-area, 'days out' specifications may be set during the initial meeting between Section members from Maine, New Hampshire, and Massachusetts or can be set at specific 'days out' meetings or conference calls as necessary. The states will annually agree to the start date, the number of 'days out' of the fishery, as well as which consecutive days of the week will have landing restrictions. While the start time for the landing restriction may vary by state, the states must implement the landing restriction for the same consecutive days each week.

If Section members from Maine, New Hampshire, and Massachusetts cannot agree on the specific 'days out', then the matter will go before the full Section for review at the next ASMFC meeting week or at a special meeting of the Section called by the Chairman.

All agreements are final when the meeting is adjourned. Adjustments to 'days out' specifications can only be made if states hold another meeting or conference call and agree on the specification changes.

Options B1: Type of Agreement

Add the following sentences to paragraph 2 under Status Quo.

States of Maine, New Hampshire and Massachusetts will vote on the parameters of the Days Out program. Each state is entitled to one vote.

Options B2: Type of Agreement

Add the following sentence to paragraph 2 under Status Quo.

The parameters of the Days Out program will be established by consensus of the states of Maine, New Hampshire and Massachusetts.

Options C1: Default Landing Day Scenario

Add the following sentences to paragraph 2 under Status Quo.

The default landing day scenario, until an agreement is reached, is the previously agreed upon number of landings days or seven landing days if the number of landing days has not been set for the current fishing season. If the Section acts to close the Area 1A fishery then the allowable landing days are zero.

Options C2: Default Landing Day Scenario

Add the following sentence to paragraph 2 under Status Quo.

The default landing day scenario, until an agreement is reached, is zero (0) landing days. If the Section acts to close the Area 1A fishery then the allowable landing days are zero.

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4. Scoping to Potentially Develop Options for a Future Management Document

This Section is seeking public comment on scoping questions related to a tiered weekly landing limit. Public comment will be considered before any further action is taken on this issue. If the Section requests the PDT to develop options related to this issue then a new management document would be initiated. Regardless of future actions the Section may take, Draft Addendum I will not be affected by the input provided in this Section.

The Section proposed a tiered weekly landing limit alternative for Draft Addendum I. The PDT reviewed this alternative and felt the timeline of Draft Addendum I did not provide an adequate amount of time to develop and analyze alternatives to the degree necessary or provide the opportunity for stakeholders to provide feedback to guide initial development of options. The PDT noted that vessels fishing in Area 1A under a Federal Herring Permit have already met certain historical and landings criteria; and that a tiered weekly landing limit has the potential to negate future fishing opportunities for vessels that have been previously instated by the National Marine Fisheries Service and not historically fished in Area 1A. Additionally the PDT expressed concern that a tiered weekly landing limit program based on historical participation for federal permit holders, that does not simultaneously go through the Council process, would not include an economic impact analysis.

A regional working group meeting was held in January 2017 to discuss these concerns. No decisions have been made on the prospect of a tiered weekly landing limit. Draft Addendum I will not be affected by the input provided.

4.1 Tiered Weekly Landing Limit

The Commission is considering a tiered weekly landing limit management approach for Area 1A. The public is encouraged to submit comments on the scoping questions below to help guide the development of management options if the Section initiates a new addendum or amendment dedicated to this specific issue.

A tiered weekly landing limit would allow vessels to land up to their designated weekly landing limit. Every vessel that declares into the Area 1A fishery would be assigned to a tier with an associated weekly landing limit. A theoretical example: vessels in Tier 1 would be allowed to land X% more than vessels in Tier 2, etc. As described under Alternative 3.1.3, the tiered weekly landing limit would be adjusted based on the available seasonal quota.

Scoping Questions

1. Are you favorable to a tiered weekly landing limit in Area 1A?
2. What should form the basis of a tiered system?
 - a. Permit category
 - b. Vessel size

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- c. Harvester's landing history
 - d. Other, please describe.
3. How many tiers should be created?
 - a. Two
 - b. Three
 - c. Other
4. If the tiers are based on permit category, which permit category should be included in each tier?
5. If the tiers are based on harvester history, what date(s) should differentiate the tiers? Please provide one or more dates.
6. If the tiers are based on vessel size, what size vessel should be included in each tier?
7. Should each tier be designated a portion of the seasonal quota? If so, what percentage. For example: Tier 1: 60%, Tier 2: 40%
8. Should one or more tiers have a maximum allowable harvest per vessel?
9. Other ideas to consider?

5. Compliance Schedule

States must implement Addendum I according to the following schedule to be in compliance with the Atlantic Herring FMP: **TBD**

6. Literature Cited

Harp, A. (2016). *White Paper on Atlantic Herring Area 1A Fishery Performance in 2015 and 2016*. Atlantic States Marine Fisheries Commission.
http://www.asafc.org/uploads/file/58124582AtIHerringArea1AFisheryPerformance_2015_2016.pdf

New England Fishery Management Council (NEFMC). (2013). *Amendment 5 to the Fishery Management Plan for Atlantic Herring*. Draft Supplemental Environmental Impact Statement. Final document submitted March 25, 2013

ATLANTIC STATES MARINE FISHERIES COMMISSION

**ATLANTIC HERRING ADDENDUM I
PUBLIC HEARING MEETING SUMMARY**

Wiscasset, Maine

April 3, 2017

42 Total Participants

Meeting Staff (3): Ashton Harp (ASMFC), Steve Train (ME Governors Appointee), Terry Stockwell (ME DMR)

Meeting participants (39):

Kevin Battle (State Representative, District 33), Robert Alley (State Representative, District 138), Paula Sutton (State Representative)

Daniel Fill (SPRAT Inc / Western Wave), Peter and Julia Mullen (F/V Western Wave), Glenn Robbins (F/V Western Sea), Shaun Rocket (F/V Western Sea), Neil Hessick (F/V Western Sea), Emily Morse (F/V Ruth + Pat), George Richardson (F/V Marcia Ann), Jeff Kaelin (Lund's Fisheries), Larry Roots (F/V Stephanie Marie), Michael Huchins (seiner), Glenn Lawrence (Double Eagle), Ben Banow (Double Eagle), Paul Yoru (F/V Sunlight and F/V Starlight), Steve Wood (F/V Sunlight and F/V Starlight), Corey Prock (F/V Sunlight), Lee Moore (F/V Starlight), Ryan Raber (F/V Providian), Abden Simmons, John Conneely (F/V Ocean Venture), Ben Matthews (F/V Ocean Venture), Dana Hammond II (F/V Nicole Leight), Robert Euglar (F/V Katie + Sarah), Jennie Bichrest (Purse Line), Bimbo Look (Look Lobster Co.), Dixon Smith (MLU), Kim Ervin Tucker (IMLU), Richard Huntley (Lobster Trap), Rob B. (HDR Bait), Brittany Willis (Atwood Lobster), Rich Whitten (Atwood Lobster)

Melissa Smith (ME DMR), James Becker (ME DMR), Pat Keliher (ME DMR), Rene Cloutier (ME LE, Matt Cieri (ME DMR)

SECTION 3: MANAGEMENT ALTERNATIVES

Issue 1: State Vessel Landing Reports

Most participants supported *Option B. Implement State Vessel Landing Reports*. One participant supported Option B, only if access to the VMS pre-trip landing reports is not granted.

Issue 2: Prohibit Landings of Herring Caught in Area 1A During a Day Out of the Fishery

One participant was in favor of *Option C. Days Out Modifications for Category A Vessels Only*. The majority of participants were in favor of *Option A. Status Quo*. Some participants noted that Option B and C would be particularly harmful to small vessels because they are already limited by weather, this would be an additional constraint. One person commented on the negative

impact Option B could have when landing, it would mean most vessels would land at the same time, which is not ideal because some harvesters have to rent charter trucks.

Issue 3: Weekly Landing Limit

General consensus for *Option C. Weekly Landing Limit for A and C Vessels*. Participants acknowledged that Category C vessels make up a small component of recent herring landings, but felt it was important to apply restrictions equally. There were no objections to the 45 day notification request.

There were some questions regarding whether a vessel could leave Area 1A to fish in Area 3. Staff commented that there is no language to prevent vessels from leaving (or coming back to) Area 1A, the only requirement was that a vessel had to declare into Area 1A prior to the fishing season.

There were other questions about whether the weekly landing limit would be a constant value throughout the season. Staff commented that the weekly landing limit would likely fluctuate based on weekly participation in the Area 1A fishery. If vessels left the fishery then the Technical Committee would adjust the weekly landing limit mid-season. It was also acknowledged that the states of Maine, New Hampshire and Massachusetts would continue to meet prior to the fishing season and during the fishing season to evaluate fishery performance and adjust landing days and weekly landing limits (if approved).

Issue 4: Landing Restriction on Transfers At-Sea

Four participants were in favor of *Option C. Herring carrier vessels are limited to receiving at-sea transfers from one harvester vessel per week; 1 landing per 24 hour period* with a caveat. Those in favor wanted additional language in the option that would place a reasonable limit on the number of carrier vessels that could be based on historical participation and carrying capacity. Multiple people commented that carriers have been involved in the herring fishery, but they have traditionally been smaller boats that operated solely as carriers (i.e., never as a harvester). Participants noted that smaller vessels require a carrier vessel due to limited carrying capacity. In addition, carriers travel to the islands to provide bait.

Two participants were in favor of *Option B. Herring caught in Area 1A can only be landed by the respective harvester vessel (i.e. no carrier vessels)*.

Issue 5: Small Mesh Bottom (SMBT) Trawl Days Out

One participant was in favor of *Option B. SMBT Days Out Program for Category C & D vessels*. One participant was in favor of *Option A. Status Quo* so the Days Out measures would apply equally to all vessels.

Issue 6: Clarification of the Days Out Procedure

Three participants were in favor of *B1. Voting*, meaning each state would vote on the measures for the Days Out program.

Three participants were in favor of *C1. Previously agreed upon number of landing days or 7 landing days*.

One participant was in favor of *C2. Zero Landing Days* until an agreement is reached because it might force a decision to be made at the meeting.

SECTION 4: SCOPING QUESTIONS FOR A TIERED WEEKLY LANDING LIMIT

Question 1. Are you in favor of a tiered weekly landing limit that would apply to vessels landing herring caught from Area 1A?

The majority of participants were in favor of a tiered weekly landing limit for the following reasons:

- The herring boats that have traditionally fished in Area 1A have spent a lot of money to be competitive against their (traditional) counterparts.
- New entrants delude the amount of fish that each vessel can have, given it is a high volume fishery.
- Herring vessels need to make a certain amount to be able to pay for repairs, etc.

Three people were opposed for the following reasons:

- All permittees have the right to fish
- This measure prevents younger generations from entering the fishery
- It is anti-competitive; any future management document should evaluate the competitive impacts and the state the purpose. If there is a control date then there should be reasonable justification for the date.
- Lobstermen need herring for bait and are opposed to measures that restrict bait from entering the market.

Question 2. What should form the basis of a tiered system?

Three participants prefer a tiered system to be based on landing history.

Question 3. How many tiers should be created?

General support for three tiers:

Tier 1: Primary harvesters (likely Category A)

Tier 2: Medium harvesters (likely Category C)

Tier 3: Traditional harvesters (could include state permitted fishermen, fishers looking for bait)

Question 5. If the tiers are based on harvester history, what date(s) should differentiate the tiers? Please provide one or more dates.

The control date should be January 1, 2017. The landing history to determine the tiers should go back ~5 years. If a tier is not utilizing their quota then there is a request to roll over that tier's quota by a certain date.

Question 7. Should each tier be designated a portion of the seasonal quota? If so, what percentage.

This will depend on the number of vessels within each tier.

Question 8. Should one or more tiers have a maximum allowable harvest per vessel?

No comment.

Questions 4 and 6 not applicable.

ATLANTIC STATES MARINE FISHERIES COMMISSION

**ATLANTIC HERRING ADDENDUM I
PUBLIC HEARING MEETING SUMMARY**

Portsmouth, New Hampshire

April 4, 2017

28 Total Participants

Meeting Staff (4): Ashton Harp (ASMFC), Ritchie White, Dennis Abbott, Doug Grout

Meeting participants (24): Chris Adamaitis, John-Paul Bilodear, Don Swanson (CCANH), Vincent Prien (NHCF Assc), Peter W., David Goethel (F/V Ellen Diane), Ellen Goethel (Explore the One World), Erik Anderson (NHCFA), Shaun Joyce, Fred C. (NH F&G), Peter Tilton, Peter Flanigan (F/V Wendy Lee), John (F/V Fly Girls), Bill, Pam Thames (NMFS), MaryBeth Tooley (O'Hara), Jerry O'Neil (Cape Seafood), Deirdre Boelke (NEFMC), Cate O'Keefe (MA DMF), Esther K, Shaun Rockett (Western Sea), Glenn Robbins (Western Sea)

SECTION 3: MANAGEMENT ALTERNATIVES

Issue 1: State Vessel Landing Reports

Multiple participants prefer the Commission work with NOAA Fisheries to garner access to the data that the fleet already provides on their federal VTRs. If the landings data will be used to monitor the rate of catch then why do the Category C and D vessels (which comprise less than 1% of landings) have to comply with this requirement—if Option B is implemented then these vessels want to be excluded.

Multiple participants were wary of using ACCSP's eTrips reporting system because they do not have access to the internet while at-sea or at the dock. There was a preference to use less technology for reporting. One participant mentioned the ease of reporting via a phone application, and cited an app that was developed by Florida for the billfish fishery.

Issue 2: Prohibit Landings of Herring Caught in Area 1A During a Day Out of the Fishery

Two participants were in favor of *Option C. Days Out Modifications for Category A Vessels Only* because it excludes Category C and D vessels from the Days Out program.

One participant was in favor of *Option A. Status Quo* because Options B and C are not consistent with the federal FMP. They do not want the Commission to impose limits on federally-permitted vessels in federal waters and view language that restricts possession caught in Area 1A as a matter that should be reviewed by the New England Fishery Management Council (because the majority of fishing in Area 1A is in federal waters).

One participant noted that they did not want to impose any undue restrictions on Category A vessels, therefore, they did not want to select an option. The participant commented that the

herring fishery has two different categories of vessels that fish for herring: Category A/B vessels primary target herring and comprise the majority of herring landings, whereas Category C/D vessels are day boats that operate primarily under the whiting fishery, which already has spatial, season and gear restrictions. The Category C/D vessels should have a different set of rules or be excluded from more restrictive measures.

Issue 3: Weekly Landing Limit

One participant was in favor of *Option B. Weekly Landing Limit for A Vessels*; the participant believes Category C/D vessels should be excluded given they make up such a small component of landings and there has not been any trend to show that landings by these vessels might increase beyond 1% of the overall landings.

One participant was in favor of *Option C. Weekly Landing Limit for A and C Vessels* so the restrictions are applied restrictions equally. The participant clarified that although the document says that Category C vessels can fish up to 25 mt, the majority of boats can't hold anywhere near this capacity and it is very unlikely that these vessels would fish at this level 7 days per week.

One participant commented that if *Option C* is implemented then the SMBT vessels should be excluded from the Days Out program entirely.

Multiple people questioned the 45 notification period. One participant commented that 15 would be more reasonable because 45 days puts an unnecessary constraint on fishermen who already have a lot of requirements to comply with. Another person said no declaration period should be necessary given there are only a handful of boats in the fishery. The Technical Committee should be able to adjust the weekly landing limit as boats enter and leave the fishery.

One person preferred a declaration and was not opposed to doing it 45 days prior to the start of the fishing season. It is helpful to know how many vessels will be in the fishery in a given year.

Multiple people noted that if a declaration is enforced that each state will need to socialize this requirement with harvesters so they don't miss the deadline. It will also not be possible for the 2017 fishing season.

Issue 4: Landing Restriction on Transfers At-Sea

One participant noted that Category C/D vessel work with herring in terms of boxes/hundreds of pounds. This person needs to be able to transfer herring over the rail as recreational bait and is unsure if this would qualify as a 'transfer at-sea'. There was a request to define 'transfer at-sea', and landing or offloading as described in the federal FMP.

One participant noted that restrictions on transfers at-sea increase the probability of discarding. The Commission should not impose measures that would indirectly increase the probability of discarding.

Two participants were in favor of *Option B. Herring caught in Area 1A can only be landed by the respective harvester vessel*. These participants noted that they have seen masses of fish taken by carrier after carrier, which turns the affected area into a dead zone.

Issue 5: Small Mesh Bottom (SMBT) Trawl Days Out

Two participants were in favor of *Option B. SMBT Days Out Program for Category C & D vessels*. Multiple participants wanted SMBT vessels to be able to land 7 days per week. If Option B is imposed the declaration period should be shortened because some vessels do not even start fishing until mid-July. If implemented, states will need to notify harvesters multiple times about due dates.

A petition (attached), signed by 29 people at the public hearing, supported a modified version of *Option B*, specifically the SMBT harvesters want to be exempt from the Days Out program.

Issue 6: Clarification of the Days Out Procedure

One participant was in favor of *B1. Voting*, meaning each state would vote on the measures for the Days Out program. They noted that nothing in fisheries should be determined by consensus.

Two participants were in favor of *C2. Zero Landing Days* until an agreement is reached because it might force a decision to be made at the meeting. One person opposed *Option C1* because it could close a federal fishery.

SECTION 4: SCOPING QUESTIONS FOR A TIERED WEEKLY LANDING LIMIT

Question 1. Are you in favor of a tiered weekly landing limit that would apply to vessels landing herring caught from Area 1A?

Multiple people found it hard to comment on whether they want a tiered weekly landing limit because ‘the devil is in the details’.

One person noted that this could be considered a re-allocation program of federal permits, which the Commission does not have the authority to do. In response, another participant questioned where the ultimate authority for the herring fishery resides.

One participant (purse seiner) was in favor of the tiered weekly landing limit system because it gives harvesters greater flexibility and protects them from an influx of new harvesters. It was also noted that a tiered system could prevent the price of herring from increasing

Question 2. What should form the basis of a tiered system?

One participant preferred a tiered system based on vessel size; another participant preferred vessel size and historical landings. A third participant thought weekly landing limits should be based on federal permit categories, but not necessarily in a tiered manner.

Question 3. How many tiers should be created?

No comment.

Question 5 and 6. If the tiers are based on harvester history (or vessel size), what date(s)/size should differentiate the tiers?

If a control date is chosen then it should be within the last 5 years. Landing history to determine the tiers should go back 5 years or less.

Question 7. Should each tier be designated a portion of the seasonal quota? If so, what percentage.

No comment.

Question 8. Should one or more tiers have a maximum allowable harvest per vessel?

No comment.

Questions 4 not applicable.

ATLANTIC STATES MARINE FISHERIES COMMISSION

**ATLANTIC HERRING ADDENDUM I
PUBLIC HEARING MEETING SUMMARY**

Gloucester, Massachusetts

April 5, 2017

17 Total Participants

Meeting Staff (2): Ashton Harp (ASMFC), David Pierce (MA DMR)

Meeting participants (15): Arthur Sawyer (MLA), Beth Casone (MLA), Kalil Boghday (MFAC), David Spence (Tidewinder), John Moores, Peter Mullen (Irish Venture Inc), Mark Ring (MLA / Gloucester Fish Company), Allison Murphy (NMFS), Brad Schondelmeier (MA DMF), 6 other unidentified participants

SECTION 3: MANAGEMENT ALTERNATIVES

Issue 1: State Vessel Landing Reports

One participant was in favor of *Option B. State Vessel Landing Reports*.

Eleven people were in favor of *Option A. Status Quo*. They would prefer the Commission work with NOAA Fisheries to garner access to the data that the fleet already provides via federal VTRs. One person commented that they already have to fill out multiple reports and don't want to do anymore.

Issue 2: Prohibit Landings of Herring Caught in Area 1A During a Day Out of the Fishery

One person commented that they are in favor of measures that will extend the season.

The other participants said they did not want to comment because this measure was geared toward Trimester 2 vessels, whereas the majority of participants in the room fished during Trimester 3.

Issue 3: Weekly Landing Limit

One participant was in favor of *Option C. Weekly Landing Limit for A and C Vessels* so the restrictions are applied restrictions equally.

One participant, who fishes during Trimester 3, was in favor of *Option A. Status Quo*. The individual wants to be able to harvest fish when they are in the area.

A Maine fishermen commented that the weekly landing limit system worked very well last year (in Maine) because it stretched the quota into September. It was acknowledged that having a limited amount of landings per week meant a fewer number of customers could receive bait, which resulted in price increases.

Issue 4: Landing Restriction on Transfers At-Sea

Two participants were in favor of *Option C*.

Issue 5: Small Mesh Bottom (SMBT) Trawl Days Out

Multiple participants are in favor of *Option B. SMBT Days Out Program for Category C & D vessels*. They voiced that SMBT vessels are the primary source of herring for the lobster fishery in NH and MA. All voiced opposition to the two available landing days that were available for the majority of Trimester 2 in 2016— it severely limited the MA lobster fishery because the Maine landings don't regularly make it down to MA. There was strong support for the SMBT vessels to have differential landing days with a preference for 7 available days. Additional landings days would also allow the whiting fishery to retain incidental catch of Atlantic herring instead of discarding.

A petition (attached), signed by 53 people at the public hearing, supported a modified version of *Option B*, specifically the SMBT harvesters want to be exempt from the Days Out program.

Issue 6: Clarification of the Days Out Procedure

One participant was in favor of *B2. Consensus*.

Three participants were in favor of *C1. 7 Landing days or rolled over days if mid-season* until an agreement is reached because it might force a decision to be made at the meeting.

SECTION 4: SCOPING QUESTIONS FOR A TIERED WEEKLY LANDING LIMIT

Question 1. Are you in favor of a tiered weekly landing limit that would apply to vessels landing herring caught from Area 1A?

Multiple people were not in favor of a tiered weekly landing limit. There was concern that it would eliminate small boats because they wouldn't get a sufficient amount of the quota to stay in business. Small boats heavily support the dockside industry. There was also a concern that it could turn into a sector or ITQ system, which is not preferred.

One participant (purse seiner) was in favor of the tiered weekly landing limit system because it gives harvesters greater flexibility and protects them from an influx of new harvesters. It was also noted that a tiered system could prevent the price of herring from increasing.

Other Comments:

One participant was curious if the Commission has evaluated the 2,000 latent lobster permits and what affect it would have on the herring market if latent lobster permits became active.

ATLANTIC STATES MARINE FISHERIES COMMISSION

**ATLANTIC HERRING
PUBLIC HEARING MEETING SUMMARY**

Cape May, New Jersey

March 27, 2017

8 Total Participants

Meeting Staff (3): Ashton Harp (ASMFC), Tom Baum (NJ Bureau of Marine Fisheries), Tom Fote (Legislative Commissioner)

Meeting participants (5): Paul Axelsson, Dan Axelsson, Jeff Kaelin, Wayne Reichle, Eleanor Bochanch

SECTION 3: MANAGEMENT ALTERNATIVES

Issue 1: State Vessel Landing Reports

Reluctant support for *Option B. Implement State Vessel Landing Reports* if access to the VMS pre-trip landing reports is not granted. Although, it is viewed as a duplicative action. Industry members felt they had complied with all of the federal reporting requests, therefore, it is discouraging that NOAA Fisheries and ASMFC cannot find an avenue that would streamline access to data. Alternative suggestions:

- Would prefer NOAA Fisheries send a daily quota monitoring email to ASFMC staff
- Is it possible to use SAFIS (daily dealer reports)?

Issue 2: Prohibit Landings of Herring Caught in Area 1A During a Day Out of the Fishery

General consensus for *Option A. Status Quo*. However, if *Issue 3. Option B. Weekly Landing Limit* is implemented then there is a strong preference for the Days Out program to be abolished or not administered.

Participants were strongly opposed to Options B and C due to weather, safety and economic concerns. Any loss of flexibility in terms of when a vessel can fish, increases at-sea risks. These options, if combined with Issue 3, were seen as unnecessarily restrictive and would vastly reduce fishing opportunities.

One participant noted that there is a lot shoreside infrastructure that is reliant upon this fishery and hopes to hear dealer feedback on these options.

Issue 3: Weekly Landing Limit

General consensus for Option C. Weekly Landing Limit for A and C Vessels. If implemented, there is a strong preference for the Days Out program to be abolished (as stated under Issue 2). Although Category C vessels do not currently harvest a lot herring, permittees have the

potential to harvest up to 25 mt/trip. Therefore, participants want Category A and C vessels to be held to the same restrictions. Participants preferred the weekly landing limit to be stated in pounds and had no objections to the 45 day notification request. It was acknowledged that New Jersey would have to develop a declaration procedure.

Issue 4: Landing Restriction on Transfers At-Sea

Consensus for *Option A. Status Quo* because it will save fish, however participants could be ok with Option C. Option B could never be considered because a lot of harvesters and markets require the use of carrier vessels.

If Option C is selected then participants noted that it could increase slippage. When asked if a weekly landing limit could increase slippage, participants remarked that in most cases it would not because the fish could be given to other carrier vessels. However, if Option C was implemented then it reduces opportunities to transfer fish, as a result it could increase slippage.

One participant noted that Table 6 in the document could imply an increase in carrier vessels however, that is not the case. The industry became available of the opportunity to have At-Sea Dealer permits and began applying for these permits in 2016—these vessels have historically been in the fishery.

Issue 5: Small Mesh Bottom (SMBT) Trawl Days Out

Participants were in favor of *Option B. SMBT Days Out Program for Category C & D vessels*. It was acknowledged that SMBT vessels currently harvest less than 1 percent of landings, therefore a separate days out program did not pose any concerns and the SMBT fishery should have more flexibility. One participant wants to make sure that the SMBT harvest is being reported accurately.

Issue 6: Clarification of the Days Out Procedure

Two participants were in favor of *B2. Consensus*, meaning states would have to come to a consensus on the measures for the Days Out program. They did not want two states to be able to overpower a third state.

One participant was in favor of *C2. Zero Landing Days* until an agreement is reached. Given, the rate of catch in recent years has been a concern, one participant questioned the value of a 7 day default landing day scenario.

SECTION 4: SCOPING QUESTIONS FOR A TIERED WEEKLY LANDING LIMIT

All participants strongly disagreed with any alternatives that could lead to a tiered weekly landing limit. Any efforts to impose such a system should be stopped immediately, therefore, participants did not answer questions 2-9. It is seen as unequitable and tantamount to giving a

public resource to a select number of fishermen. If imposed, it could set a negative precedent on other federal fisheries.

The Commission should state the specific problem that this action would address. New Jersey does not have a vast fleet of vessels that are waiting to harvest herring in Area 1A. One participant noted this action is directed at one New Jersey fishermen who steamed up to Area 1A to harvest herring in 2016. This fishermen noted their right to follow the fish (herring) because they have a Category A permit. Also stating that fishermen from the northeast come to the Mid-Atlantic to fish; following fish is what a fishermen does. Lastly, the Gulf of Maine herring fishery is already tiered geographically against New Jersey fishermen.

If there is a concern about latent permits (Table 9) then that should be explored further before considering this action.

Any regulatory body considering such an option would have to look a landing data from at least 20 years back; it would have to be a point prior to when midwater trawlers were excluded from Area 1A during June through September.

Other Issues:

One participant noted that the rigid management structure (four sub-ACLs) prevented the fishery from achieving optimum yield. The Council and Commission should explore that feasibility of a 10,000 mt reserve that can be accessed in Trimester 3, if any management areas are underutilized.

ATLANTIC STATES MARINE FISHERIES COMMISSION

**Written Comment Summary on Draft Addendum I to Amendment 3
to the Atlantic Herring Fishery Management Plan**

April 17, 2017

The following pages represent a summary of written comments received by ASMFC by April 7, 2017 at 5:00 p.m. on Draft Addendum I to Amendment 3 of the Atlantic Herring Interstate Fishery Management Plan.

A total of 17 written comments, including a small-mesh bottom trawl petition with 82 signatures, were received from the following organizations/groups:

National Marine Fisheries Service
FV Western Sea
Shaun Rockett, FV Western Sea
Paul Axelsson, FV Opportune
Peter Mullen, FV Western Wave
Ryan Raber, FV Providian
Lund’s Fisheries Inc
Maine Lobstermen’s Association, Inc. (ME-MLA)
Massachusetts Lobstermen’s Association (MA-MLA)
Maine Lobstering Union (IMLU)
Julie Eaton
William Coffin
Atwood Lobster LLC
Jim Higgins
Anonymous
J. McLean

ISSUE 3.1.1: STATE VESSEL LANDING REPORTS

Option A: Status quo

Option B: Implement State Landing Report

| Issue 3.1.1 | | |
|--------------------|---|---|
| Option A | 2 | MA-MLA, NMFS |
| Option B | 7 | Shaun Rockett, McLean, Lund’s, IMLU, FV Western Sea, ME-MLA, Atwood |

Two participants supported Option B, only if access to the NOAA daily catch data is not granted.

ISSUE 3.1.2: PROHIBIT LANDINGS OF HERRING CAUGHT IN AREA 1A DURING A DAY OUT OF THE FISHERY

Option A: Status Quo. Harvesters are prohibited from landing herring during a ‘day out’.

Option B: Harvesters are prohibited from landing or possessing herring caught from Area 1A during a day out of the fishery.

Option C: Vessels with a *Category A Limited Access Permit* are prohibited from landing or possessing herring caught from Area 1A during a day out of the fishery.

| Issue 3.1.2 | | |
|-------------|---|--|
| Option A | 3 | F/V Opportune, Lund’s, ME-MLA |
| Option B | 1 | F/V Providian, |
| Option C | 5 | Anonymous, Shaun Rockett, McLean, FV Western Sea, Atwood |

Preference for status quo because it promotes the safety of life at sea (i.e., doesn’t force vessels to fish on bad weather days) and allows vessels to offload when ready (i.e, no longer in possession of herring).

ISSUE 3.1.3: WEEKLY LANDING LIMIT

Option A: Status Quo. No weekly landing limit

Option B: Weekly harvester landing limit (in pounds) for vessels with a Category A federal permit

Option C: Weekly harvester landing limit (in pounds) for vessels with a Category A or C federal permit

| Issue 3.1.3 | | |
|-------------|---|---|
| Option A | | |
| Option B | 3 | Anonymous, IMLU, ME-MLA |
| Option C | 6 | FV Opportune, Shaun Rockett, McLean, FV Western Sea, ME-MLA, Atwood |

ISSUE 3.1.4: LANDING RESTRICTION ON TRANSFERS AT-SEA

Option A: Status Quo. A vessel with the proper permits can transfer or receive Atlantic herring at-sea.

Option B: Herring caught in Area 1A can only be landed by the respective harvester vessel (i.e. no carrier vessels)

Option C: Herring carrier vessels are limited to receiving at-sea transfers from one harvester vessel per week; 1 landing per 24 hour period (*Maine implemented in 2016*)

| Issue 3.1.4 | | |
|-------------|---|--|
| Option A | 2 | FV Opportune, Anonymous |
| Option B | 3 | Shaun Rockett, FV Western Sea, Atwood |
| Option C | 5 | FV Western Wave, Lund’s, IMLU, FV Providian, Julie Eaton |

Select sub-comments, full text can be found in the individual written comments:

- “With the implementation of weekly landing limits, carriers do not affect the rate or quantity of catch.” – Anonymous
- “Option B until a tiered system is in place, to protect the fishery” – FV Western Wave

ISSUE 5: SMALL MESH BOTTOM (SMBT) TRAWL DAYS OUT

Option A: Status Quo. Days Out program applies to all Herring harvesters.

Option B: SMBT Days Out Program for Category C and D Permits

| Issue 3.1.5 | | |
|-------------|---------------------------------|--|
| Option A | | |
| Option B | 9 + petition with 82 signatures | Anonymous, Shaun Rockett, MA-MLA, McLean, Lund’s, IMLU, FV Providian, FV Western Sea, Atwood |

ISSUE 6: CLARIFICATION OF THE DAYS OUT PROCEDURE

Option A: Status Quo

Type of Agreement

- **Option B1:** Voting
- **Option B2:** Consensus

Default Landing Days

- **Option C1:** Previously agreed upon number of landing days or 7 landing days
- **Option C2:** Zero landing days until an agreement is reached

| Issue 3.1.6 | | |
|-------------|---|--|
| Option A | | |
| Option B1 | 3 | Anonymous, MA-MLA, Lund’s |
| Option B2 | 8 | F/V Opportune, Shaun Rockett, McLean, Lund’s, FV Providian, FV Western Sea, ME-MLA, Atwood |
| Option C1 | 3 | Anonymous, MA-MLA, FV Providian |
| Option C2 | 2 | Lund’s, ME-MLA |

SECTION 4: SCOPING QUESTIONS FOR A TIERED WEEKLY LANDING LIMIT

| Sentiment on a tiered weekly landing system: | | |
|--|---|---|
| In Favor | 4 | Shaun Rockett, McLean, Atwood, FV Western Sea |
| Opposed | 6 | F/V Opportune, Anonymous, MA-MLA, Lund’s, IMLU, Julie Eaton |

Select sub-comments that provide additional context for chosen empty fish hold provision options, full text can be found in the individual written comments:

- In Favor
 - Preference for a three-tier system, whereby Tier 1 includes only those Category A vessels that have fished in the last 10 years.
 - Preference for a three-tier system based on permit category and harvester landing history.

- Opposed
 - “It will only limit or eliminate competition for a public resource which will cause price increases. The quota, and therefore the resource, is not and will not be affected by the number of boats in the fishery...” – Anonymous
 - “Any future consideration of tiering access to the 1A fishery should take place in sync with the NEFMC, federal plan, and the Council should take the lead in a trailing action.” – Lund’s

Additional comments

- “Maine Lobstermen understand the need for conservation and sustainability in all fisheries. We have managed to create and maintain a sustainable lobster fishery which will be here for future generations to participate in. However, we would like to see the implementation of conservation measures for Herring altered slightly. The herring quota has been cut so severely that we are literally hanging on by a thread. We request a survey of the current stock in Area 3 be done this year by qualified, independent scientists with the involvement of Herring harvesters who know where and when the herring are, to obtain an accurate assessment of the fishery. We would like to see rolling closures in Area 3 during spawning times just like already exist in Area 1A to further build and maintain a healthy stock.” – Julie Eaton, Lobsterman
- Two written comments would like to see vessels not be allowed to switch/shift fishing effort in and out of Area 1A.
- One written preferred new participants be capped at 20,000 lbs, restricted by days out and not be allowed to transfer at sea.

Comments on ASMFC Addendum I

1. Reporting: Faster and more accurate reporting of herring catch by State should be implemented. It seems the simplest option would be “specific state representatives are granted access to NOAA VMS pre-landing reports”.
2. Landing on Days-Out: I support Option C: Days Out Restrictions for Vessels with a Category A Limited Access Permit. Since the percentage of landings for both Category C and D permits is miniscule, it makes sense to not include them in this.
3. Weekly Landing Limit per Vessel: I support Option B: Weekly Harvester Landing Limit for Vessels with a Category A Limited Access Permit. For the same reason listed in 2 above (landings are miniscule). Also, reporting requirements for Category C and D permits would be much simpler.
4. Landing Restrictions on Transfers at Sea: I would support the status quo. It is up to the harvester to report their herring catch no matter if they land the fish themselves or transfer to a carrier to land. The same number of fish will be landed whether by harvester or carrier. There are a few harvesters that cannot hold many fish and rely on carriers. Option B would be grossly unfair to these. Additionally, there are Carriers that have relied on this as their sole source of income for many years. With the implementation of weekly landing limits, carriers do not affect the rate or quantity of catch.
5. Small Mesh Bottom Trawl: I support Option B: Additional Days Out Program for Small Mesh Bottom Trawl Vessels with a Category C or D Permit.
6. Clarify Days Out Procedure: I support B1 and C1

Scoping for a Future Management Document

I do not support any type of a Tiered Weekly Landing Limit. It will only limit or eliminate competition for a public resource which will cause price increases. The quota, and therefore the resource, is not and will not be affected by the number of boats in the fishery. There are likely a few additional boats that want to enter the fishery in 2017. This is because the price per pound to the boat almost tripled in 2016 - mainly because there were a very few purse seiners that were actually harvesting -making it easy to gouge the fishermen. There were fewer seiners in 2016 than in 2012 and 2013 to be specific. Any influx of large numbers of additional purse seiners is pure speculation and unlikely. Purse seining is a very complicated type of fishing that takes years to become accomplished at. There is a limited number of Category A licenses, they are expensive, and outfitting or re-rigging a boat takes time and a huge investment.



April 7, 2017

Atlantic States Marine Fishery Commission
 1050 N. Highland St. Suite A-N
 South Portland, ME 04116

RE: Draft Addendum 1 to Amendment 3 to the Atlantic Herring Interstate Fishery Management Plan

Dear Commissioners,

Atwood Lobster LLC is a dealer located in the Mid-Coast region of Maine. Our business operations span much of the coast from Southern Maine to the Down East region, and includes the annual purchase of millions of pounds of lobster. In 2016, we procured and sold roughly 5 million pounds of herring, accounting for nearly 7% of total herring landed in Maine last year. As such, we consider ourselves significant stakeholders in the subject matter.

We speak from a unique perspective as we have a responsibility in supporting harvesters on both sides of the equation. On the one side we need to advocate for our lobster fishermen who were heavily burdened by the rapidly rising herring prices last year. On the other side, we have established strong, and long-term relationships with herring fishermen, trawlers and seiners alike, who have reached out to us for support.

In specific regards to Addendum 1, Atwood Lobster's position regarding the 6 proposed management alternatives are as follows:

| Management Alternative | Supported Option |
|--|----------------------|
| 3.1.1 Harvester Reporting Requirements | Option B |
| 3.1.2 Prohibit Landings of Herring Caught in Are 1A during a Day Out | Option C |
| 3.1.3 Weekly Landing Limit Per Vessel | Option C |
| 3.1.4 Landing Restriction on Transfers At-Sea | Option B |
| 3.1.5 Small Mesh Bottom Trawl (5MBT) Fleet Days Out | Option B |
| 3.1.6 Clarification of Days Out Procedure | Option B2, Consensus |

In reference to the scoping questions, our position is as follows:

| | |
|----|--|
| 1. | Yes, we support a tiered weekly landing limit |
| 2. | The tiered system should be based on the permit category and the harvester's landing history |
| 3. | There should be a 3 tiered system |
| 4. | Category A permits should be part of tiers 1 and 2 |
| 5. | Tier 1 should be based on a harvester's activity over the last 10 years |
| 6. | N/A |



| | |
|----|--|
| 7. | Yes each tier should be designated a portion of the quota using a calculation based on historical landings |
| 8. | Yes, each tier should have a maximum allowable harvest per vessel |

It is our belief that the viewpoint of dealers like Atwood Lobster should be weighted heavily in the subject dialogue as we exist at the center of the herring/lobster fishermen dynamic. We have invested heavily in infrastructure supporting both our lobster fishermen as well as our bait department which are both vital to ongoing operations.

We hope you will take our input into consideration as you make your way through this process. We are happy to participate in any way possible to ensure the viability and success of our harvesters across all New England fisheries.

Very Respectfully,

Brittany Willis
General Manager
Atwood Lobster, LLC
286 Island Road
Spruce Head, ME 04859
Brittany.willis@atwoodlobster.com
(207) 542-5482

Rick Whitten
Bait Manager
Rick.whitten@atwoodlobster.com
(207) 975-1760

Our company William Coffin & Sons has been in the bait business since 1977. We are concerned about more boats coming into the fisheries and making the price go up. This also will make less loads between the boats, therefore we will get less loads. .It seems that some kind of solution could be made so everyone could make a living. We don't think it's right for boats that haven't been fishing to come in and have the same amount of fish to catch as the boats that have been seining for 30 plus years. It wouldn't be quite as bad if the quota could be increased. If the boats come in that haven't been fishing we will be out of bait by August, just when the market picks up for fall fishing. This will be very hard on the bait dealers and lobster fisherman. We don't want to cause hard feelings, but this is not right.

Thank you for listening.

William Coffin & Sons
Jane & Bill Coffin



Maine Lobstering Union

IMLU Local 207: By Lobstermen, for Lobstermen



April 7, 2017

Ashton Harp
ASMFC
1050 North Highland Street
Suite 200 A-N
Arlington, VA 22201

RE: Public Comments on Addendum I to Amendment 3 to the Atlantic Herring
Interstate Fishery Management Plan

Dear Ms. Harp;

Thank you very much for your detailed presentation on April 3, 2017, in Wiscasset, regarding the six Addendum I amendment options being considered by the ASFMC. Based on the information you provided during that presentation, the discussion during that meeting, and your detailed White Paper and Addendum I draft, the Maine Lobstering Union, Local 207 of the IAMAW, is submitting formal public comments on several of the options.

There are several goals that we believe should be the focus of any options adopted in Addendum I by the Commission:

- Ensure that the Area 1A quota is managed in a manner that will provide fresh herring bait to lobstermen (the primary consumers of this fishery) when it is needed in the later months in the Second Trimester without any premature closure in the fishery prior to the end of September, 2017;
- Level the playing field so that all Area 1A permit holders operate under the same management restrictions and requirements regardless of their home State;
- Provide real-time data to all stakeholders and States; and
- Maintain the diversity of the fleet to ensure that small vessels and carriers (like the Double Eagle circa 1929) that have traditionally fished in the New England herring fishery can continue to participate in, and thrive in, this important fishery.

In addition, we request that: (i) a determination be made *this year*, by appropriate independent scientists, regarding the status of the stock in Area 3; and (ii) Area 3 be closed during the period that spawning is occurring in Area 3 – like the rolling closures that already take place in Area 1A -- to ensure the health and/or recovery of this stock for future years and generations.

Background:

As the Commission is well aware, lobstermen are the primary consumers of the herring caught in Areas 1A and 3. This herring provides an important and significant part of the bait used in the lobster fishery, especially in Maine.

The need for herring as bait is greatest in the Second Trimester, particularly during the months of August and September. The need for herring is lower in June than July, lower in July than August, and high in both August and September. Unfortunately, in 2015 and 2016, herring in Area 1A was caught at the front-end of the Second Trimester – burning up most of the roughly 30,000 MT quota in June and July and leaving lobstermen with very limited or no access to fresh-caught herring for bait when it was most needed in August and September.

This situation was exacerbated due to the significant drop in the Area 3 catch in 2015 and 2016. As a result, Area 1A became the primary source for herring for Maine lobstermen in 2015 and 2016.

However, in 2016, despite the efforts of the Maine Department of Marine Resources to impose additional measures on Maine permit holders to ensure that the quota was not used before the end of the Second Trimester, Area 1A was closed for spawning as of September 17, and was closed for the remainder of the Third Trimester and year on October 18 because 92% of the quota had been caught by that date.

As a result of the limited supply of herring for bait during the time when bait is most needed for the lobster fishery, the price of herring bait has increased exponentially in the past three years. Since 2013, the price of herring has more than doubled in price, resulting in significant hardship on Maine lobstermen. While the price for bait for most lobstermen climbed in 2016 to an average cost of \$50,000 to \$60,000, lobstermen did not receive a commensurate increase in the price that they received for their catch from dealers and processors, and they did not have the ability to pass this bait price increase on to the ultimate consumers of their catch.

Comments on Specific Options:

- ***3.1.1 Harvester Reporting Requirements:*** Option B;
- ***3.1.2 Prohibit Landings of Herring Caught in Area 1A During a Day Out of the Fishery:*** No Preference or Position;
- ***3.1.3 Weekly Landing Limit Per Vessel (Pounds):*** Option B with the addition of imposing a progressive, *not uniform*, number of trucks per week so that the majority of the Second Trimester quota is caught in August and September and there are no quota-related closures during the period when herring is in greatest demand (we understand that there may be spawning-related closures during this time);
- ***3.1.4 Landing Restrictions on Transfers At-Sea:*** Option C or some variation on this option that will ensure continued fleet diversity, a place for smaller vessels and carriers, and continued viability of the existing carrier vessels that have been involved in this fishery – some for almost a century;

- **3.1.5 *Small Mesh Bottom Trawl Fleet Days Out*:** We would like to see this segment of the fishery encouraged further to increase diversity in the fishery and additional fishing opportunities for Maine small boat fishermen, including fishermen on waiting lists for other fisheries including the lobster fishery;
- **3.1.6 *Clarification of Days Out Procedure*:** Whichever option best ensures that all Area 1A permit holders are required to adhere to uniform restrictions that will manage the Area 1A quota to ensure it is available during the entire Second Trimester and guarantee a level playing field for all participants in the herring fishery and fresh bait at more reasonable, and more stable prices (in line with historical levels not the past 3 years).

We currently oppose the imposition of a tiered system in the herring fishery because we believe that it will keep prices high by stifling competition and chilling the entry of new entrants and development of innovations and more small vessels participating in the fishery. We also believe this could and would disadvantage small vessels and traditional carrier vessels – harming the diversity of the fleet. Owner-operator and small vessel participation in the herring fishery is an important goal that has social and economic benefits which we believe need to be facilitated by the Commission when it considers which options to adopt in Addendum I.

Thank you for your consideration.

Sincerely,



Kimberly J. Ervin Tucker
Legal Counsel
Maine Lobstering Union

Terry:

On the bait issue. A lot less bait can be used if we encourage everyone to bag our bait instead of stabbing it.

Except for redfish. It lasts longer in the bags and you end up using less. I am using 25-30% less by bagging the pogies rather than stabbing it. When we stab, we use an awful lot just to the tides & strong currents.

Bonus is you rarely run out of bait in the bags 3-4 days later there is still some left, and the trap is still fishing. I believe I am catching a little more due to not having any bait free traps. Takes no more time to bag than stab.

I know this sounds too rudimentary to be helpful but it has helped me.

Thanks for all you do for us

Jim Higgins
7 Linden Court
Cumberland Me 04024

Ashton Harp
ASMFC
1050 North Highland Street
Suite 200 A-N
Arlington, Va. 22201

RE: Public Comments on Addendum I to Amendment 3 to the Atlantic Herring Interstate Fishery Management Plan

Dear Ms. Harp,

I am a commercial lobsterman (female) from Deer Isle, Maine with 30+ years of time on the water. I am married to a lobsterman and we each operate our own boats. Our children also operate their own boats as to their children (our Grandchildren). We are a traditional Maine fishing family. I am also the Chairman of the Maine Lobstering Union's Legislative Committee. I am writing to you to submit formal public comment on several of the options detailed in your White Paper and Addendum I draft as well as the presentation that was made in Wiscasset, Maine and discussion at that meeting and conversations we as a Union have had since that meeting.

We would like to see all boats in this fishery treated with fairness. Everyone getting an equal shot. The smaller boats are just as important as the larger boats! We are by tradition a small boat fishery (lobster) and have profound respect for boats like the Double Eagle that has brought us in Herring since 1929! It just isn't right that these carriers should be squeezed out. They have taken care of our herring needs for decades and it is vital that we stand up for them now. We would ask that the playing field was leveled for all in Area 1 so everyone was asked to play by the same restrictions and requirements. Diversity is so important in this fishery as it is in all fisheries. For without diversity, we will see huge mega ships gobble up the herring in a very quickly like they did last year. All the herring was caught and put in storage thus eliminating the ability for lobstermen to obtain "fresh" herring that is so very important to our businesses.

Maine Lobstermen understand the need for conservation and sustainability in all fisheries. We have managed to create and maintain a sustainable lobster fishery which will be here for future generations to participate in. However, we would like to see the implementation of conservation measures for Herring altered slightly. The herring quota has been cut so severely that we are literally hanging on by a thread. We request a survey of the current stock in Area 3 be done this year by qualified, independent scientists with the involvement of Herring harvesters who know where and when the herring are, to obtain an accurate assessment of the fishery. We would like to see rolling closures in Area 3 during spawning times just like already exist in Area 1A to further build and maintain a healthy stock.

We think that real time data should also be provided to all stakeholders and States to both protect the resource and to allow the herring harvesters to fully participate in the harvesting of the quota.

Most of the effort in Maine by the lobstermen occurs in July, August, and September. We would ask that the quota be adjusted to give a larger share in these months. Even if the quota was redistributed, giving more in August and September and less in June. This would be an immense help without doing any acute damage to the stock.

I can tell you from a personal stand point, that I paid exactly double for my bait this year as did everyone in Stonington/Deer Isle. I must have bait to go fishing and because the dealers couldn't raise the price I was getting paid for my lobsters to offset this huge increase in the cost of herring to the consumer, it came as a major expense for my business. I do not support a tiered system for the herring fishery as it, (my economic classes in college taught me about supply & demand) would only serve to further increase my bait prices. There were 7 herring boat in Maine water this year. To allow them to catch the lion's share of the bait would only serve to allow them to charge any amount they want, create monopoly in the fishery and further harm the lobstermen. It is important to understand that NOT all lobstermen have large boats and although some make amazing money, most us are small fishermen doing job we love and making a living. It is vital to our industries (lobster & herring) that we maintain diversity, owner- operator standards and protect the small vessels in both fleets. Small lobstermen built the lobster fishery and small herring carriers were an essential part of that too!

Thank-you for your time and consideration on this very important issue. I hope that a decision can be reached to maintain the way of life that we so desperately want to protect and ensure sustainability for all.

Julie Eaton
33 Lindsay Lane
Deer Isle, Maine 04627

catsasscaptjulie@yahoo.com
207-348-6255



MAINE

Lobstermen's Association, Inc.

2 Storer St, Ste 203 * Kennebunk, ME 04043
207-967-4555 * 866-407-3770 * www.maine lobstermen.org

Ashton Harp
ASMFC
1050 North Highland St, Suite 200A-N
Arlington, VA 22201

April 6, 2017

Dear Ms. Harp:

The Maine Lobstermen's Association (MLA) has reviewed the Draft Addendum I to Amendment 3 to the Atlantic Herring Plan. Atlantic herring is the most important bait fish for Maine's lobster fishery which supports thousands of jobs. In 2016, Maine's lobster fishery generated nearly \$550 million in ex-vessel value. Managing landings of Atlantic herring through the peak fishing months of the lobster fishery is fundamental to its continued success.

Access to herring was a daunting problem for the Maine lobster industry in 2016. The price of bait doubled and many of Maine's coops and buying stations had to ration bait. The lack of and the high cost of bait remain a huge issue of concern for Maine's lobster industry.

The MLA strongly supports Addendum I to the herring plan to give the ASMFC Herring Section additional tools to manage the timing of herring landings from Area 1A. The MLA supported Maine's efforts in 2016 to limit the use of carriers and catch per vessel in order to ensure that the bait supply lasted throughout trimester 2 and ensure a bait supply for the lobster industry. We encourage the ASMFC to adopt these measures so that Maine, New Hampshire and Massachusetts can work together to manage Area 1A landings and maintain fair and equitable regulations for all vessels in the fishery, regardless of which state they land in.

With regards to the specific management alternatives, the MLA provides the following feedback:

Harvester reporting requirements. The MLA supports requiring a state landings report if a vessel lands herring caught from Area 1A in a Maine, New Hampshire or Massachusetts port, if federal VTR reports are not made available to states for landings monitoring in a timely fashion.

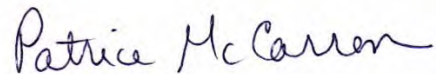
Prohibit landings of herring during a day out of the fishery. MLA supports the status quo on this coupled with a weekly landing limit per vessel.

Weekly landing limit per vessel. MLA supports expanding the measures Maine had in place in 2016 to control landings. Therefore, MLA supports Option B or C to put all states on a level playing field to control the amount and timing of landings.

Clarification of days out procedure. The MLA supports that the Herring Section continue to operate by consensus, and the default management measures be set to zero landing days if consensus is not reached. We believe that a shut-down of the fishery is something that all states will work to avoid.

Thank you for consideration of these comments.

Sincerely,

A handwritten signature in black ink that reads "Patrice McCarron". The signature is written in a cursive, flowing style.

Patrice McCarron
Executive Director

F/V Ocean Spray Partnership

Deake's Wharf, Portland, ME 04101

Ryan M. Raber, Δ 207.841.7881

PROVIDIAN



April 5, 2017

Atlantic States Fishery Commission
1050 N. Highland St. Suite A-N
Arlington, VA 22201

Dear Commissioners,

I am writing to provide comments on behalf of the F/V Providian on the Draft Addendum 1 to Amendment 3 to Interstate Fishery Management Plan for Atlantic Herring. The F/V Providian fishes for Atlantic Herring throughout the range of the fishery using both midwater trawl and purse seine gear. The F/V Providian lands herring for the lobster bait markets in Maine, New Hampshire and Massachusetts.

In general, we support the idea of managing the landing in 1a to extend the quota throughout the bulk of the Lobster season. The unpredictability of the haddock by-catch will likely limit access to fishing in Area's other than 1a, as a result, a majority of the lobster bait supplied to New England will have to come from 1a. Therefore, the limited quota in 1a must be managed in order to have fresh bait throughout the bulk of the lobster season. Although we believe this type of management should be executed on the federal level, there is no way NOAA could act for the 2017 season. This leaves it up to us to attempt to manage the landings through ASMFC.

3.1.1 Harvester Reporting Requirements

There is no reason to add additional reporting burden to vessels. Maine has been working with NOAA to use VMS data. We believe Maine and the other States should continue to work with NOAA to use VMS data. However, we will be happy to comply with any new reporting requirements in order to give fishery managers' better tools to manage our quota.

3.1.2 Prohibit Landings of Herring Caught in Area 1A during a day out of Fishery

We believe the landing laws should be uniform across the states and match the rules Maine DMR implemented in 2016. Fishing and landing should be prohibited on "days out". Vessels should be allowed to possess fish transiting the through provided the fish is legally caught in other areas. It is necessary to give fishery managers the tools to effectively slow the quota depletion.

3.1.3 Weekly Landing Limit per Vessel / 4.1 Tiered

It will not be an easy task to come up with a management plan that will make the quota last for the bulk of the lobster season and not destroy the stakeholder's investments in the bait businesses that support the lobster industry. All we ask is the F/V Providian is treated on the same level as the other 5 seiners that have a 2016 history in 1a if a tiered system is implemented. We have all invested a considerable sum of money to supply steady bait to the lobster industry. We and other current stakeholders have invested in harvesting, processing and delivery.



Inequities in the allocation to historical stakeholders' will significantly hamper our ability to utilize our investments and provide payback to the long-term infrastructure. There are clearly 6 boats that landed over 1 million pounds last year from 1a trimester 2 and have current and long-term involvement in the industry. The existing stakeholders have responsibly gone to weekly landing limits in an effort to extend the quota as long as possible under extremely difficult circumstances. As a result, others have seen an avenue to capitalize on our responsible actions with very little investment. If new participants must be allowed access, then we feel they should be limited to a traditional lobster boat landings. New participants should be capped at 20,000lbs, restricted by days out and not be allowed to transfer at sea. This would allow access lobstermen access to herring for their own bait needs.

3.1.4 Landing Restriction on Transfers at Sea

Each harvester vessel should be allowed to designate one specific carrier. Herring caught in 1a should only be transferred at sea to their designated carrier. The herring industry has a strong history of carriers. These carriers supply remote island markets that are not easily accessible by trucks. The landings of the harvester and the carrier should be restricted by a weekly limit.

Without a tiered system with weekly limits, transfers at sea would have to be eliminated. Fisheries managers need to have to tools to slow down the landings in 1a. Using mid-water trawlers as carriers, the current fleet has the ability to land the entire 1a quota in just a few days.

3.1.5 Small Mesh Bottom (SMBT) Fleet Days Out

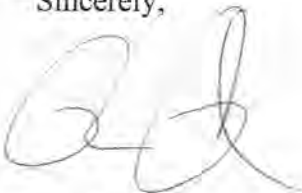
We believe that qualifying SMBT should have an additional Days out Program that matches better with their fishing effort. Many of these boats sell bait directly to lobstermen on an individual basis and should be allowed to continue to utilize this market.

3.1.6 Clarification of Days Out Procedure

The Days out program should be a consensus of the states of Maine, New Hampshire and Massachusetts. If an agreement has not been set by the beginning of the fishing season, then the landing days should default to seven days.

We support giving fishery managers the proper tools to effectively manage the quota in Area 1a. With harvester and mangers working together, we can successfully manage the 1a quota. Hopefully, ASMFC can come up a management system that helps the lobster industry without ruining the livelihood of the families that have depended and responsibly fished on herring for years.

Sincerely,



Ryan Raber

Ethan Chase
FV Western Sea
April 7, 2017

Hello Ashton,

Ethan Chase here from the FV Western Sea) These are the answers that represent how we all feel on the Western Sea, as well as our bait dealers and fellow boats.. We have worked hard to follow the rules and support the future of herring seining for decades!

Other fishers have been sustained by taking these measures. Rules based off historical participation is fare to those who have supported families and depend on this fishery here in Maine as a way of life. Thank you)

1. Yes, In favor of the tiered weekly landing limit
2. Tiered system should be based on the permit category and the harvesters landing history
3. there should be a 3 tiered system
4. Category A permits should be in tiers 1 and 2
5. Tier 1 should be based on whether a boat fished every year for the past ten years
6. N/A
7. Yes, each tier should be designated a portion of the seasonal quota
8. Yes, each tier should have a maximum allowable harvest per vessel

Addendum 1 items for consideration

1. Implement state vessel landing reports
choose option B
2. Prohibit landings of herring caught in area A during a day ut of the fishery
Choose option C
3. Weekly landing limit per vessel
Choose option C, but would like to include that once a vessel declare to opt in area 1Afor the second trimester they ar enot allowed to switch area during the trimester. If you are in, you are in.
4. landing restrictions on transfers At-Sea
Choose option B until tiered system is in place, to protect the fishery
5. Small mesh bottom trawl fleet days out
choose option B
6. clarify days out of procedure
choose option B2 for a consensus

Captain Shaun Rockett of the F/V Western Sea
Addendum 1 Items for Consideration

1. Implement State Vessel Landing Reports

Choose Option B

2. Prohibit Landings of Herring Caught in Area 1A During a Day Out of the Fishery

Choose Option C

3. Weekly Landing Limit Per Vessel

Choose Option C, but would like to include that once a vessel declares to opt into Area 1A for the 2nd Trimester they are not allowed to switch Area during the Trimester. If you are in, you are in.

4. Landing Restrictions on Transfers At-Sea

Choose Option B until the tiered system is in place, to protect the fishery

5. Small Mesh Bottom Trawl Fleet Days Out

Choose Option B

6. Clarify Days Out Procedure

Choose Option B2 for a consensus

Scoping Questions

1. Yes, in favor of the tiered weekly landing limit
2. Tiered system should be based on the Permit category and thye Harvesters landing History
3. There should be a 3 tiered system
4. Category A permits should in tiers 1and 2
5. Tier 1 should be based whether a boat fished every year for the past ten years
6. N/A
7. Yes, each tier should be designated a portion of the seasonal quota
8. Yes, each tier should have a maximum allowable harvest per vessel

RE: Draft Addendum 1 - Landing Restrictions on Transfer At-Sea 3.1.4 Restrictions

My name is Peter Mullen. I own F/V Western Wave a purse seiner in Maine since 1990. She is a purse seiner in Maine with history going back to 1984. We are a Maine corporation and paying taxes to the State of Maine for many years. We can only carry 4 and 1/2 trucks on my F/V Western Wave (harvester). I own F/V Osprey and has been a carrier for my Western Wave for years also in Maine. Osprey also has a Category 1 Federal permit. My request here is: I am asking for Option C be apart of the Addendum 1.

Please consider this in your decisions.

Much obliged.

Peter Mullen
Sprat Inc.
Cell 508 294 3606
Email: petersprat@aol.com



Massachusetts Lobstermen's Association, Inc.

8 Otis Place ~ Scituate, MA 02066
Bus. (781) 545-6984 Fax. (781) 545-7837

April 6, 2017

via: email aharp@asmfc.org

Atlantic States Marine Fisheries Commission
Ashton Harp
1050 North Highland St., Suite 200 A-N
Arlington, VA 22201

RE: Draft Addendum I

On behalf of its 1800 members, the Massachusetts Lobstermen's Association (MLA) respectfully submits this letter of comment on the Atlantic States Marine Fisheries Commission (ASMFC) Draft Addendum I to Amendment 3 to the Atlantic Herring Interstate Fishery Management Plan.

Established in 1963, the MLA is a member-driven organization that accepts and supports the interdependence of species conservation and the members' collective economic interests. The MLA continues to work conscientiously through the management process with the Division of Marine Fisheries, the Atlantic States Marine Fisheries, and the New England Fisheries Management Council to ensure the continued sustainability and profitability of the resource in which our fishermen are engaged in.

The primary use for Atlantic Herring is preferred bait for the commercial lobster industry as a whole. We are extremely concerned that the proposed management measures in Draft Addendum I would further restrict and prohibit the Massachusetts fleet that has diversified their fishing practices to keep them whole throughout the year.

3.1 Alternatives Developed by the PDT

3.1.1 Harvesting Reporting Requirements

The MLA supports **Option A: Status Quo**

Currently the states are required to implement weekly reporting by all non-federally permitted fishermen on Atlantic herring (including mobile and fixed gear).

3.1.5 Small Mesh Bottom Trawl (SMBT) Fleet Days Out

The MLA supports **Option B: Additional Days Out Program for Small Mesh Bottom Trawl Vessels with a Category C or D Permit**

If a vessel meets the following criteria it is eligible for a different allocation of landing days and times that are separate from restrictions in Section 4.2.4.2 Days Out. A vessel must hold 1) a Category C Limited Access Permit or Category D Open Access Permit, and 2) use small mesh bottom trawl gear to harvest herring. To opt into the differential small mesh bottom trawl Days Out program, eligible harvesters must submit a small mesh bottom trawl gear declaration to notify states of their intent to fish in Area 1A with small mesh bottom trawl gear 45 days prior to the start of the fishing season. The annual gear declaration will apply to Trimester 2 (June through September). The process to determine the small mesh bottom trawl days out of the fishery is described under Section 4.2.4.1.

All other herring harvesters that do not meet this criteria must comply with the landing day restrictions under Section 4.2.4.2 Days Out. If a Category C vessel switches to non-SMBT gear then that vessel must comply with the landing day restrictions under Section 4.2.4.2 Days Out.

3.1.6 Clarification of Days Out Procedure

The MLA supports **Options B1: Type of Agreement**

Add the following sentences to paragraph 2 under Status Quo.

States of Maine, New Hampshire and Massachusetts will vote on the parameters of the Days Out program. Each state is entitled to one vote.

The MLA supports **Options C1: Default Landing Day Scenario**

Add the following sentences to paragraph 2 under Status Quo.

The default landing day scenario, until an agreement is reached, is the previously agreed upon number of landings days or seven landing days if the number of landing days has not been set for the current fishing season. If the Section acts to close the Area 1A fishery then the allowable landing days are zero.

Scoping to Potentially Develop Options for a Future Management Document

4.1 Tiered Weekly Landing Limit

The MLA does not support any tiered weekly landing limits in Area 1A or any other herring management area. The Scoping questions proposed set the stage to eliminate those vessels that do not meet the “criteria” set by whom, the current 6-7 vessels in Area 1A. If the criteria are set by vessel length and or landing history this is yet another mechanism to eliminate certain vessels. These “potential scoping” questions are skewed and self serving. When there are other vessels from other states that have the right to fish in Area 1A why should they be eliminated when they too are providing lobster bait that is needed in other states?

Other comments and concerns

We therefore, encourage the Commission to continue to allow the Small Mesh Bottom Trawl Vessels with a Category C or D Permit continue to fish without interruption as our Massachusetts lobster fishermen depend greatly on having enough Atlantic Herring in order to conduct their lobster fishing operations. Most of their access comes from this diversified fleet of vessels based in Massachusetts. We must note that, none of the herring bait in Massachusetts comes from the Purse seine fleet.

In summary, the Massachusetts Lobstermen’s Association must reiterate that the continued supply Atlantic Herring bait is essential to the continued successes for the commercial lobster industry here in the Commonwealth. Any provisions that would further restrict our bait supply beyond the current confines, which we feel already limit access, will be strongly opposed by our lobster industry.

Thank you for the opportunity to comment and we sincerely hope and trust that the Atlantic States Marine Fisheries Commission will weigh all the alternatives and options ultimately making recommendations that will allow the continued supply of Atlantic Herring as lobster bait to be available to our lobster fishermen.

Kind regards,
Beth Casoni
Executive Director

My opinion on this addendum is as follows, I'm a retired engineer crew member herring fishermen this will help but isn't the answer to this big problem we have in this fishery I went to the meetings in the early 90s, tried to explain what was going to happen and was basically ignored. Feel free to contact me if you would like to hear my two cents. I see this still hasn't been resolved I have many friends still trying to make a living in this industry, it still weighs on my mind. This will help but still in my opinion still isn't the answer.

I'm in favor of of a tiered weekly landing limit.

Also tiered system based on permit category and the holders landing history.

Category A permits should be in tiers 1 and 2

Tier 1 should have only boats that have landings every year for at least 10yrs.

Each tier should have designated portion of seasonal quota.

Each tier should have a maximum allowable harvest per vessel.

Option B for landing reports.

Area 1A landings option C

Weekly landing limit per vessel option C also would like to see vessels not be allowed to switch areas.

Restrictions on transfers at sea

Bottom trawls days out, option B

Days out option B2

Thank you, J McLean

AXELSSON SEINER, INC.

Commercial Fishermen

738 Shunpike Road, Cape May, NJ 08204

Phone (609) 884-4855 Fax (609) 884-3521

To all interested parties of the Atlantic Herring Fishery

RE: Draft Addendum I to Amendment 3 to the Atlantic Herring Interstate Fishery Management Plan for Public Comment

My name is Paul Axelsson. I am a third generation American commercial fisherman. I am commenting for myself, my whole family, our crew members, purse seine vessel Opportune, and carry vessel Önnered. At present we employ eight people. They and their families are directly affected by our success and productivity.

Section 2.1 Statement of Problem

I do not have an issue with spreading the IA quota out during trimester II and fully understand the purpose to provide fresh herring for lobster bait.

3.1.2 Prohibit Landings of Herring caught in Area 1A During a Day Out of the Fishery

I prefer option A: Status Quo. I disagree with options B and C because it states "prohibited from possessing Atlantic herring from 1A during a day out", citing the Magnusson-Stevens Act National Standard 10 Safety of Life at Sea 600.355 "(a) standard 10. Conservation and Management measures shall, to the extent practicable, promote the safety of life at sea". Options B and C would force the fisherman to work weather that they would normally not consider. Also, if tied to the dock on time but not unloaded I think it is still possessing and considered unlawful in options B and C. So I ask to retain some flexibility to do our job safely and economically.

3.1.3 Weekly Landing Limit Per Vessel

I believe Option C seems the fairest way to go. If "A" permits are restricted to landing limits per week then so should "C" permits. Also, just a thought here on this subject: if we are going to do a weekly landing limit per vessel categories "A" and "C" then perhaps we could do away with the landing day restrictions all together. I understand that landing days are a traditional management measure for this fishery, but my thought would give the fisherman more flexibility while still providing fresh bait.

3.1.4 Landing Restrictions on Transfers at Sea

Our purse seine operation needs a carry boat and a catch boat to function. A carrier with no catch boat is useless, and vice versa. Our carry boat transports and refrigerates the product and has no gear on board. Our catch boat focuses on the capture of the fish and has the net and net hauling equipment on board. Therefore Option A: Status Quo is preferable to maintain flexibility. Option C we need to survive and Option B would put us out of business. I cite national standard 6 - 600.335 Variations and contingencies of the Magnusson Stevens Act "(a) Standard 6. Conservation and management measures shall take into account and allow for variations among contingencies in fisheries, fishery resources, and catches (C) variations. (1) In fishery

management terms, variations arise from biological, social and economic occurrences as well as from fishing practices".

I bring this to light not telling you what you may already know as managers, but just to ask to acknowledge our way of purse seining when the decisions are made.

3.1.6 Clarification of Day Out Procedure

I believe a consensus is better than a vote.

Section 4 Tiered Weekly Landing Limit

I strongly disagree with a tiered weekly landing limit! I believe that there are already three tiers within the Atlantic herring fishery. Two are tangible, one is not tangible. Federally the permits are tiered (1) geographically and (2) by capacity. The third intangible tier is the fact that you need the boats, the crew, permits, the "know how" and MAINLY the ambition to do the job. It takes many years to build something like this. A written law of more tiers clearly points to the fact that there are stakeholders that would like to create a monopoly for themselves and eliminate their competition with the use of political force. If optimum yield is not being attained in the fishery in all areas then how can this action be justified for just 1A? It sounds to me that this is based on economics.

600.330 National Standard 5 – Efficiency

(e) Economic allocation. This standard prohibits only those measures that distribute fishery resources among fisherman on the basis of economic factors alone, and that have economic allocation as their only purpose.

AN EXTRA TIER ? !

The Atlantic Herring Fishery encompasses more than just 1A. There are herring fisherman from North Carolina to Maine involved in the herring fishery. If properly permitted herring fisherman, I think, should be allowed to participate at the same level of capacity as the competition with the same permits.

If on a state level a tiered system was enacted on a Federal FMP then I believe that this would set a bad precedent and have negative impacts on this fishery and others in the future.

I ask for equal rights within the group of Atlantic herring fishermen. Who has the right if the bus isn't full to tell one person where to sit or where not to sit!

Sincerely,



Paul Axelsson
Captain/Owner F/V Opportune



Phone: (609) 884 - 7600 Fax: (609) 884 - 0664 lundsfish@lundsfish.com
997 Ocean Drive, Cape May, New Jersey 08204, U.S.A.
Email to: jreichle@lundsfish.com

April 7, 2017

Ms. Ashton Harp
Herring Fishery Management Plan Coordinator
ASMFC
1050 N. Highland St., Suite 200 A-N
Arlington, VA 22201 – by email: aharp@asmfc.org

Dear Ms. Harp:

On behalf of the 250 employees of our family-owned, vertically-integrated seafood processing facility and the crews (and their families) working on our company-owned boats and other commercial fishing vessels working from our dock in the Port of Cape May, I thank you for the opportunity to provide comments on Draft Addendum 1 to Amendment 3 of the Commission's Atlantic (Sea) Herring Plan. We also appreciate your holding a hearing at the Rutgers Extension office, and visiting us, during this process.

The addendum has been developed to improve the Area 1A fishery, in terms of providing bait to the lobster fishery into November, if possible. The proposed effort controls are designed to control the rate of Area 1A catch so the seasonal quota can be spread throughout the entirety of a the 3 trimesters, specifically Trimester 2 (June 1-September 30).

We support and understand the Commission's interest in doing this. The vessels that we manage, F/V Enterprise and F/V Retriever, have been involved in the Days-Out program since its beginning. However, after following this process closely in recent weeks, we believe it should be made clear that federal permit holders' history and access to all federal herring management areas, and quotas, will be retained if the Addendum moves ahead.

Also, we believe that all federal permit holders should be similarly limited to reach this goal; ask the TC to analyze catch by gear type and vessel type over a period of time and then reduce everyone's access to some percentage of their history, for example, in order to slow the Area 1A fishery down.

Our comments follow the order of issues as organized in the draft addendum:

Management Alternatives:

3.1.1 Harvester Reporting Requirements

Option A – Status Quo - States are required to implement weekly reporting by all non-federally permitted fishermen (mobile and fixed gear)

Option B – For 1A landings, in MA, NH and ME, state-permitted harvesters would submit state reports daily. Federally-permitted vessels would also have to make state reports. Harvesters with catches under 2000 pounds would report weekly through the IVR process

We are unsure why a Federally-permitted vessel should have to also report to the states since we have reported daily to NMFS through the IVR system, for some years. We don't understand why this coordination with the 3 states involved could not occur given the communications technology that exists today, rather than requiring two daily reports by Federally-permitted fishermen. If this cannot take place before summer, we can support providing a state report, also.

3.1.2 Prohibit Landings from Area 1A During a Day out of the Fishery

Option A – Status Quo – Harvesters prohibited from landing herring from Area 1A during a ‘day out’ and vessels may only land once per calendar day on any day open to landing. Fixed gear fishermen can land herring during a ‘day out’

Option B – All harvesters would be prohibited from landing or possessing herring caught from Area 1A during a day out of the fishery

Option C – Vessels with Category A limited access permits would be prohibited from landing or possessing herring caught from Area 1A during a day out of the fishery

We support the status quo and oppose the change that would eliminate fishing on a day out – doing so would further disrupt the regular flow of fish to the lobster fishery, while quota is available, and is not a reasonable solution to the perceived problem.

3.1.3 Weekly Landing Limit Per Vessel (pounds)

Option A – Status Quo – No weekly landing limits

Option B – Weekly harvester landing limit for vessels with a Category A permit. Harvesters would notify states of their intent to fish, and the gear they will be using, at least 45 days prior to the beginning of the fishing season (June 1 seine / October 1 trawl)

Option C – Weekly harvester landing limit for vessels with a Category A or C permit with 45 day notice of intent to fish required. Category C permits land less than 1% of the fish in Area 1A, according to the document

How can these be enforced? These options seem to be designed to discriminate between a small fleet of large, or ‘out-of-state’ federally permitted herring catching and carrying vessels. Any restrictions on catch during the 1A Trimester 2 fishery should be applied across all vessels with history in the fishery, equally, as recommended above.

3.1.4 Landing Restrictions on Transfers-at-Sea

Option A – Status Quo – A vessel with the proper federal permits can transfer or receive herring at sea

Option B – Herring caught in Area 1A can only be landed by the respective harvesting vessel

Option C – Herring carriers limited to receiving at-sea transfers from one harvester vessel per week and landing once in a 24-hour period

We can support Option C, limiting all carriers to loading once a week, although both this option and the option eliminating carriers entirely, which we strongly oppose, (Option B), will likely, seriously limit the flow of herring to the markets and will certainly lead to increased discards of herring in the purse seine fishery.

While the document seems to indicate there is an increasing trend in the use of carriers in the 1A herring fishery, we do not think the data supports that view. Carriers have long been the backbone of the herring fishery, particularly in the fixed gear and purse seine fisheries during the second trimester. We believe that any reduction in access to the resource by carriers should only be evenly distribute, as Option C proposes to do.

3.1.5 Small Mesh Bottom Trawl (SMBT) fleet days out

Option A – Status Quo – Days out program applies to all herring harvesters

Option B – Additional days out program for SMBT vessels with a Category C or D Permit

Given the fact that this fleet catches less than 1% of the sub-ACL, some days-out flexibility for them (as discussed in the document) may be of value in creating some additional flexibility in the marketplace. However, we strongly encourage the Commission to ensure regular, daily reporting to MA, ME, NH, consistent with the requirements of Section 3.1.1, above, for all directed herring fishing. This fleet should also be limited to landing once per day.

3.1.6 Clarification of Days Out Procedure

Option A – Status Quo – MA, NH & ME sets days out schedule by consensus, if possible...if no agreement, issue can go to the Section for a decision. Most discussion by conference call

Option B1 – Type of Agreement - would clarify that each state is entitled to one vote

Option B2 – Type of Agreement - would be through the consensus of the 3 states

Option C1 – Default Landing Day Scenario – until agreement, the previous number of landing days, or a default number of 7 landing days would prevail if the number of landings days has not been set for the new season

Option C2 – Default Landing Day Scenario – default landing days is zero until agreement is reached by the 3 states

We support options B1, B2 and C2 – we are not in support of starting any fishing year with a default value of 7 days (Option C1) as this option is not responsive to the need to stretch the herring quota out for the benefit of the seasonal lobster bait market. Defaulting to zero days would be of maximum effect, in our view.

4 / 4.1 Scoping to Potentially Develop Options for a Future Management Document / Tiered Weekly Landing Limit

Since the majority of the vessels in the GOM fishery hold Federal herring permits (see Tables 10 and 11), we are opposed to the Commission, or any individual state, potentially treating some federal permit holders differently than others, within the same permit category. Any future consideration of tiering access to the 1A fishery should take place in sync with the NEFMC, federal plan, and the Council should take the lead in a trailing action.

Tiering should be based on individual vessel and fleet landings history and any reduction in 1A catch should only be apportioned to all permitted vessels by equal percentage. This addendum should not eliminate fishing opportunities for some while increasing those that others may seek to acquire.

Thank you for your attention to and your consideration of our comments. Please do not hesitate to contact me if I can provide you with any additional information.

With best regards,

Jeff Reichle

Jeffrey B. Reichle
President
Lund's Fisheries, Inc.



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
GREATER ATLANTIC REGIONAL FISHERIES OFFICE
55 Great Republic Drive
Gloucester, MA 01930-2276

APR - 7 2017

Robert Beal
Executive Director
Atlantic States Marine Fisheries Commission
1050 N. Highland St, Suite 200 A-N
Arlington, VA 22201

Dear Bob:

We are providing comments on draft Addendum I to Amendment 3 to the Interstate Fishery Management Plan for Atlantic Herring. In general, we support the Atlantic States Marine Fisheries Commission developing a range of additional management measures for the Area 1A fishery to ensure that herring bait is available to the lobster fishery. However, we are concerned that several of these measures may not be consistent with, or may substantially and adversely affect, the Federal Atlantic Herring Fishery Management Plan (Herring FMP) and associated regulations.

The Magnuson-Stevens Fishery Conservation and Management Act allows states to regulate fishing vessels outside of the state's boundaries when the vessel is registered under that state's laws and the state's laws and regulations are consistent with the fishery management plan and applicable Federal fishing regulations. States may regulate within their own boundaries fisheries that occur predominately in Federal waters as long as the regulations do not substantially and adversely affect carrying out a Federal fishery management plan. As currently described in Addendum I, we are concerned that two measures (Section 3.1.2: A prohibition of landings caught during a day out of the fishery; and Section 3.1.4: Landing restrictions on transfers at sea) would require a complementary Federal action because they propose to regulate the activity of vessels in Federal waters and may not be consistent with the Federal management plan. In addition, we believe that two other measures (section 3.1.3: Weekly landing limits; and section 3.1.5: Small-mesh bottom trawl fleet days out) are within the jurisdiction of the states to the extent that they regulate landings, but the measures might substantially and adversely affect carrying out the Federal Herring FMP to the degree that the landing limits substantially prevent vessels from achieving optimum yield. They also may create substantial inefficiencies for federally-permitted vessels.

As you consider public comment and select final management measures in Addendum I, we recommend that you consider how these measures could be made consistent with the Federal Herring FMP and avoid substantially adversely affecting federally-permitted vessels operating in the Federal fishery or make clear how these measures are consistent. If you find measures in Addendum I cannot be modified, we recommend that the Herring Section consult with the New England Fishery Management Council on initiating an action that would consider establishing complementary management measures for Federal waters.



Finally, Addendum I includes a measure that would potentially create duplicative Federal and state reporting requirements (section 3.1.1). Together, we should be working to minimize reporting requirements and burdens, to the extent possible. Therefore, we do not support the alternatives that create state reporting requirements. The addendum states this measure may be unnecessary if states could be granted access to vessel monitoring system catch and/or pre-land reports. While we are supportive of finding efficiencies within our reporting, the NOAA Office of Law Enforcement (OLE) has authority over granting access to these data. To date, OLE in Gloucester has not received the Commission's formal request for such information. Also, please keep in mind that information submitted to NMFS is confidential under the Magnuson-Stevens Act which allows states and marine fisheries commissions to access confidential information as necessary to further the Department of Commerce's mission. OLE will evaluate whether the pending request meets this requirement. Please submit your request to:

Tim Donovan, Assistant Director
NOAA Office of Law Enforcement, Northeast Division
55 Great Republic Drive
Gloucester, MA 01930

Thank you for the opportunity to provide these comments on Addendum I. We intend to follow the development and implementation of this management action and will continue to provide input and guidance, as needed. If you have any questions, please contact Carrie Nordeen at (978) 281-9272, carrie.nordeen@noaa.gov; or Allison Murphy at (978) 281-9122, allison.murphy@noaa.gov.

Sincerely,



John K. Bullard
Regional Administrator



cc: Tom Nies, NEFMC Executive Director
Ritchie White, Atlantic Herring Section Chairman
Aston Harp, Commission Fishery Management Plan Coordinator

ASMFC

We, the undersigned MA and NH fishermen and lobstermen, are very concerned with the unavailability of herring to our area of southern 1A during July through September.

There is a small but important traditional whiting fisheries that takes place in our area from July through October that only catches one percent of total allowable catch of herring in 1A. Due to more restrictive landing days being proposed, we support the exemption of small mesh bottom trawls from landing days in Draft Addendum 1, in the ATLANTIC HERRING INTERSTATE FISHERIES MANAGEMENT PLAN, sec 3.1.5, option B. Thank You.

| | Boat Name | Print Name | Signature |
|----|------------------|----------------------|-----------------------------|
| 1 | YANKEE FISH COOP | MARVIN PERKINS | <i>Marvin Perkins</i> |
| 2 | Sheila Anne | Bob Nudd | <i>Bob Nudd</i> |
| 3 | FLY GIRLS | JIM TITONE | <i>James J. Titone</i> |
| 4 | SANDY LYNN | HORMAN TINE | <i>John Tine</i> |
| 5 | ELLEN DIANE | DAVID GOETHEL | <i>David Goethel</i> |
| 6 | Lady Jess | FRANCIS EMOUD | <i>Francis Emod</i> |
| 7 | DIXIE LYNN | Gregory Marshall | <i>Gregory Marshall</i> |
| 8 | DIXIE LYNN | CHARLES MARSHALL JR. | <i>Charles Marshall Jr.</i> |
| 9 | Ashleigh E | Richard Syphers | <i>Richard Syphers</i> |
| 10 | Wot Sig | Jeremy Ellwell | <i>Jeremy Ellwell</i> |
| 11 | MAKAYLA MAY | Mike Sprague | <i>Mike Sprague</i> |
| 12 | Heater Marie | Lesly-Verbit | <i>Lesly Verbit</i> |
| 13 | Ellen Diane | Ellen Goethel | <i>Ellen Goethel</i> |
| 14 | Western Sea | SHAUN ROCKETT | <i>Shaun Rockett</i> |
| 15 | Lady Tracy Ann | Mark Godfrey | <i>Mark Godfrey</i> |
| 16 | Providence | John-Paul Boudreau | <i>John-Paul Boudreau</i> |
| 17 | Sally Trachella | KEIKO FLANIGAN | <i>Keiko Flanagan</i> |
| 18 | Rough Times | Chris Adamaitis | <i>Chris Adamaitis</i> |
| 19 | ARTS & KEO | ERIK ANDERSON | <i>Erik Anderson</i> |
| 20 | SHARON ROSANNE | JOE GALTER | <i>Joe Galter</i> |
| 21 | HANNAH | SITAW TOLLE | <i>Sitaw Tolle</i> |
| 22 | PREPATOR | FRED CLEWS | <i>Fred Clews</i> |
| 23 | Wendy Lee | Peter Flanagan | <i>Peter Flanagan</i> |
| 24 | Western Sea | Cyrena Robbins | <i>Cyrena Robbins</i> |
| 25 | Peter Kendall | Peter Kendall | <i>Peter Kendall</i> |
| 26 | Fly Girls | FRANK TITONE | <i>Frank Titone</i> |
| 27 | MADRIGAN | TAYLOR PHILLIPS | <i>Taylor Phillips</i> |
| 28 | Bertrice A | BILL MARCONI | <i>Bill Marconi</i> |
| 29 | Katie - RNE | Vincent PRIEN | <i>Vincent Prien</i> |
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Submitted at the Massachusetts
Public Hearing, 4/5/17

ASMFC

We, the undersigned MA and NH fishermen and lobstermen, are very concerned with the unavailability of herring to our area of southern 1A during July through September.

There is a small but important traditional whiting fisheries that takes place in our area from July through October that only catches one percent of total allowable catch of herring in 1A. Due to more restrictive landing days being proposed, we support the exemption of small mesh bottom trawls from landing days in Draft Addendum 1, in the ATLANTIC HERRING INTERSTATE FISHERIES MANAGEMENT PLAN, sec 3.1.5, option B. Thank You.

| | Boat Name | Print Name | Signature |
|----|--------------------|------------------------|-------------|
| 1 | Arant Alexa | Scott Swickert | [Signature] |
| 2 | Annie Rowe | Dan Lowe | [Signature] |
| 3 | Jenny R | Scott Place | [Signature] |
| 4 | Eastbound | Kyle Grant | [Signature] |
| 5 | ORLOW | JOE BORELAND | [Signature] |
| 6 | TEJAT | ANDREW A DONSARICK III | [Signature] |
| 7 | MAMA TRIED | Daniel Mahoney | [Signature] |
| 8 | Capt Novelto | Marc Frontiero | [Signature] |
| 9 | Lar hidden zone | Robert Modica | [Signature] |
| 10 | Kathryn Leigh | William Brown | [Signature] |
| 11 | ARyanda D | ERIC JOSEPHSON | [Signature] |
| 12 | Dominatrix | Dean Mould | [Signature] |
| 13 | ELIN & GRAHAM | DAVID TOSY O'CONNELL | [Signature] |
| 14 | Abigail Marie | STEVE RAGUSA JR. | [Signature] |
| 15 | Miss Emily | Jimmy Santopaulo Jr | [Signature] |
| 16 | Rhumbosil | COLBY EASTLOW | [Signature] |
| 17 | OLDE AMERICA | Ringbe Hillier | [Signature] |
| 18 | Windup | Adam Clay | [Signature] |
| 19 | Pumping Blind | Jerry McKay Jr. | [Signature] |
| 20 | NOEX | Ryan Bourne | [Signature] |
| 21 | DOG + I | John Herrick Jr. | [Signature] |
| 22 | FREEMANVILLE DOGUE | MICHAEL TUPPEN | [Signature] |
| 23 | STOP 32 SANTIAGO | DONALD SUTTON | [Signature] |
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ASMFC

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| | Boat Name | Print Name | Signature |
|----|-------------------------------|-------------------|-------------|
| 1 | MISS CARLA | WALTER SAWYER | [Signature] |
| 2 | MISS KELLY | SCOTT BAYNE | [Signature] |
| 3 | Kingfisher | Jack Lakeman | [Signature] |
| 4 | [Signature] | Anthony Scora | [Signature] |
| 5 | Jerry Mearns | JERRY NICASTRO | Rosa Lee |
| 6 | Scuba Girl | DON KING | [Signature] |
| 7 | David Shaffer | DAVID SHAFFER | CHLOE B |
| 8 | William W. | MILK GOODWIN | [Signature] |
| 9 | ALLISON-CAROL | PETER MONDELLO | [Signature] |
| 10 | DAVE NOVELLO | DEAN DE GASTE | [Signature] |
| 11 | TULLY IV | JOE MONDELLO | [Signature] |
| 12 | LUCY C | Jon Mondello | [Signature] |
| 13 | At Cottage Sabrina | Al Cottone | [Signature] |
| 14 | MISS SANDY | VINCENZO JAORMINA | [Signature] |
| 15 | RAZZO I | Joe Randoz | [Signature] |
| 16 | HARD Bottom | George HARDY | [Signature] |
| 17 | Flu Dunlin | Michael Frontiero | [Signature] |
| 18 | Camron D | Keith Amero | [Signature] |
| 19 | GONE FISHING | Gil Mitchell | [Signature] |
| 20 | DIANA LEE | Dave Ring | [Signature] |
| 21 | TERRI-LYNN | Bob Hannah | [Signature] |
| 22 | Nicholas Colby | David Lane | [Signature] |
| 23 | Rollins Thunder | Jeff Bartlett | [Signature] |
| 24 | Mark Ring | Mark Ring | [Signature] |
| 25 | Stanley Thomas | Matthew Ring | [Signature] |
| 26 | Sandollar | Anthony Gross | [Signature] |
| 27 | MAR-STINA | JAMES O. LANE | [Signature] |
| 28 | John Moores | Enrique | [Signature] |
| 29 | Michael | Josef Tuck | [Signature] |
| 30 | SANTO PTO | SOPHIA OCLANN | [Signature] |
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Atlantic States Marine Fisheries Commission

1050 N. Highland Street • Suite 200A-N • Arlington, VA 22201
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**Atlantic Herring
Advisory Panel Conference Call
April 10, 2017
10:00 – 12:00 p.m.**

Advisory Panel Members: Jeff Kaelin (Chair), Patrick Paquette, Shawn Joyce, Steve Weiner, Marybeth Tooley

ASMFC: Ashton Harp, Ritchie White (Section Chair)

The Atlantic States Marine Fisheries Commission's Atlantic Herring Advisory Panel (AP) met via conference call on April 10, 2017 to discuss the management alternatives in Draft Addendum I. The following summarizes the comments made by AP members on the call. Due to low attendance the comments made are not representative of the entire Advisory Panel, rather they are individual comments. There was a request by the Chair to re-populate the Atlantic Herring Advisory Panel at the May Section meeting.

SECTION 3: MANAGEMENT ALTERNATIVES

Issue 1: State Vessel Landing Reports

The discussion focused more on the applicability of VMS as an avenue for states to monitor the rate of catch, rather than the individual management options (A and B). It was noted that the Commission sent a letter to NOAA Fisheries, Office of Law Enforcement requesting access to VMS pre-trip landing reports for 3 state biologists. If access is granted the AP does not want access to be used for enforcement of any kind (the request was specific to landings information). A member asked if state law enforcement officers have access to VMS and later in the call someone confirmed (at least in NH) that they do have access.

One member noted that they would (reluctantly) comply with the reporting requirements in Option B if implemented.

One member, that is familiar with eTRips, said it is a helpful application that other fisheries along the east coast are already using.

One member commented that boats with federal permits are already reporting to NMFS on a daily basis through vessel trip reports (VTR) and do not want to report the same information twice (via a state report). Therefore, it is preferred that the Commission work with NOAA Fisheries to obtain the data.

Issue 2: Prohibit Landings of Herring Caught in Area 1A During a Day Out of the Fishery

Three members are in favor of *Option A. Status Quo*; there was opposition to restricting the possession of herring on a day out because the majority of fishing takes place in federal waters. Two of the three members believe the days out should be a tool for managers if needed, but if a weekly landing limit is implemented then harvesters should be allowed to land 7 days per week.

Issue 3: Weekly Landing Limit

The AP supports a weekly landing limit, but is opposed to the requirement that harvesters must declare into the Area 1A fishery 45 days prior to the start of the fishing season. The AP would prefer no declaration period. The AP questioned the purpose of the declaration for the following reasons:

- It does not restrict vessels to fishing in Area 1A
- It is relatively easy to know the number of vessels fishing per week because the Area 1A fishery is small
- It is not a good indicator of future effort; all vessels will declare
- The weekly landing limit will fluctuate based on the number of vessels fishing each week

Issue 4: Landing Restriction on Transfers At-Sea

There was support for *Option A. Status Quo* because the other options could lead to discarding. The members on the call think a weekly landing limit is a sufficient effort control and any restrictions on carriers are not necessary.

One person asked if *Option C* would put smaller carriers out of business, others commented that it likely would because the preference would shift to larger carriers.

One member voiced that they did not want harvesters, with the additional capacity of carriers, targeting and taking entire schools of herring. Another member voiced that it is not the goal of the harvester but if there is extra fish then they should be transferred to a carrier(s) instead of being dumped. Any option that has a chance of increasing discards should be avoided.

Issue 5: Small Mesh Bottom (SMBT) Trawl Days Out

The members on the call supported *Option B*, as long as the vessels were required to report their landings. For example, if state vessel landing reports are implemented then they should be required for all vessels.

Issue 6: Clarification of the Days Out Procedure

Two members preferred *Option B2. Consensus* because it required managers to discuss the issue in detail. Some members questioned *Option C2. Zero Days* because it has the potential to

shut down a federal fishery; whereas two members viewed it as an incentive for managers to come to an agreement and force a consensus.

SECTION 4: SCOPING QUESTIONS FOR A TIERED WEEKLY LANDING LIMIT

Two members of the AP are opposed to a tiered weekly landing limit because it is not consistent with the federal FMP. If this effort was to be considered then it should be initiated by NEFMC.



Atlantic States Marine Fisheries Commission

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703.842.0740 • 703.842.0741 (fax) • www.asmfmc.org

MEMORANDUM

March 28, 2017

To: Atlantic Herring Management Section
From: Law Enforcement Committee
RE: Review of Atlantic Herring Draft Addendum I

The Law Enforcement Committee (LEC) of the Atlantic States Marine Fisheries Commission (ASMFC) reviewed management options contained in Atlantic Herring Draft Addendum I during a teleconference meeting on March 17, 2017.

The following were in attendance:

LEC: Capt. Steve Anthony (NC); Dep. Chief Kurt Blanchard (RI); Capt. Grant Burton (FL); Maj. Rene Cloutier (ME); Lt. Mike Eastman (NH); Lt. Col. Larry Furlong (PA); Lt. Tom Gadomski (NY); Capt. Jamie Green (VA); Maj. Rob Kersey (MD); Capt. Bob Lynn (GA); Capt. Doug Messeck (DE); Katie Moore (USCG); Asst. SAC Jeff Ray (NOAA OLE); Capt. Jason Snellbaker (NJ)
STAFF: Ashton Harp; Megan Ware; Mark Robson

The LEC reviewed all of the management options in the draft addendum and provides the following comments.

Issue 1. Harvester Reporting Requirements

The LEC recommends the most timely and accurate reporting possible to enhance enforcement efforts (*ASMFC Guidelines for Resource Managers on the Enforceability of Fishery Management Measures, Second Ed., 2015*). State access to federal reports is important for timeliness. Maine reported success in implementing state reports and was able to regularly review email reports for carrier vessels.

Issue 2. Days Out

The LEC did not offer any comments or recommendations on the options in the draft.

Issue 3. Weekly Landing Limit

The LEC recommends establishing weekly landing limits in pounds and truckloads. Maine reported no significant problems with implementing a weekly landing limit. Their officers typically monitor landings by truckloads rather than by poundage, a more efficient process. They used an estimate of approximately 40,000 lbs./truckload. With timely access to reports, weekly landing limits can be enforced.

Issue 4. Restrictions on Transfers at Sea

The LEC believes that Option B is more enforceable than Option C, but recognizes this may place a hardship on carrier vessels that have operated for many years.

Issue 5. Days Out for Small-Mesh Bottom Trawl Vessels

The LEC is comfortable with adoption of Option B and did not believe an additional program for small-mesh bottom trawl vessels would be overly confusing from an enforcement perspective.

Issue 6. Clarification of Days Out Procedure

The LEC did not have any comments regarding this issue.

The LEC appreciates the opportunity to provide enforcement advice to the Atlantic Herring Management Section regarding Draft Addendum I.



Atlantic States Marine Fisheries Commission

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MEMORANDUM

April 18, 2017

To: Atlantic Herring Section
From: Tina Berger, Director of Communications
RE: Requesting Appointment of New Advisors

Attached is the current membership list for the Atlantic Herring Advisory Panel. Information on their interest in serving, attendance record and other pertinent details are provided following their contact information. You'll find that about half of the advisors are very active (5 out of 12), with remaining advisors predominantly inactive. Staff recommends that these inactive advisors be replaced. Two of the inactive advisors filled the non-traditional stakeholder seats; they have been removed due to their lack of participation since 2012. If the Section wishes, staff can solicit nominations for new non-traditional stakeholders.

There are also several vacancies on the AP: Maine has 2 vacancies (processor and at-large seat); Massachusetts has 1 vacancy (processor or bait dealer); New Jersey has 1 at-large vacancy. One Massachusetts advisor (Peter Moore) moved to Vermont and another (Stephen Weiner) has moved to Maine. Both advisors continue to hold a Massachusetts seats on the panel.

At your earliest convenience, please let us know what advisors you would like keep on the AP, as well as those you would like to replace. A fillable AP Nomination form can be accessed on the Commission website under Fisheries Management/Program Overview (Guiding Documents) or directly at http://www.asmfc.org/files/pub/ASMFC_AP_NominationForm_Fillable.pdf.

If you have any questions, please feel free to contact me at (703) 842-0749 or tberger@asmfc.org.

Enc.

cc: Ashton Harp

M17-39

ATLANTIC HERRING ADVISORY PANEL

Bolded names await approval by the Atlantic Herring Section
Bolded and italicized name denotes Advisory Panel Chair

April 19, 2017

Maine (6)

Jennie Bichrest (bait)
21 Sandy Acres Dr.
Topsham, ME 04086-5157
Phone: 207.841.1454
jennieplb@yahoo.com
Appt. Confirmed 3/26/97
Appt. Reconfirmed 10/1/01; 1/1/05; 5/10; 4/14
Attendance: Good (attended 3 out of the last 5 mtgs)

Glenn Robbins (comm/purse seine)
ME Seiners Assn F/V Western Sea
7 Alden Lane
Eliot, ME 03903-2102
Phone: 207.439.2079
robbins62@gmail.com
Appt. Confirmed 3/26/97
Appt. Reconfirmed 10/1/01; 1/1/05;
5/10; 4/14

Attendance: Poor (last mtg attended was in Dec. 2008); recommend replacement

Mary Beth Tooley (comm/mid-water trawl & purse seine)
415 Turnpike Dr.
Camden, ME 04843-4437
Phone: 207.763.4176
FAX: 207.837.3537
mbtooley@live.com
Appt. Confirmed 7/14/03
Appt. Reconfirmed 7/07; 4/14
Attendance: Good (attended 4 out of the last 5 mtgs)

John Stanley (comm inshore/stop seine, traps, rod & reel)
789 Indian Point Road
Mt. Desert, ME 04660
Phone (cell): 207.460.2395
Phone (eve): 207.244-7409
FAX: 207.244.3089
dogwood@acadia.net
Appt. Confirmed 5/4/15

Vacancies – Processor and at-large seat

New Hampshire (2)

Mike Anderson (comm. trawler)
10 Washington Road
Rye, NH 03870-0055
Phone: 603.436.4444
padi.anderson@gmail.com
Appt. Confirmed 8/18/09
Appt. Reconfirmed 5/14

Attendance: Poor (last mtg attended was in Feb. 2011; 9 mtgs have been held since then)

Shawn Joyce (rec)
270 Washington Road
Rye, NH 03870
Phone: 603.548.5267
sjoycemail@comcast.net
Appt. Confirmed 10/27/14
Attendance: Fair (attended 1 out of the last 3 mtgs; did attend the last mtg)

Massachusetts (4)

Peter Moore (comm/mid-water trawl)
MARACOOS
318 South College Ave.
Newark, DE 19711
moore@maracoos.org
Appt. Confirmed 7/14/03
Appt. Reconfirmed 8/07; 4/14
Attendance: Fair (attended 2 out of the last 5 mtgs)

- Was appointed by MA DMF; now lives in VT

Stephen B. Weiner (At-large, comm. bluefin tuna harpoon)
12 Judson Road
Andover, MA 01810
Phone: 978.764.3637
weinersb@gmail.com
Appt. Confirmed 8/18/09
Appt. Reconfirmed 4/14
Attendance: Excellent (attended 4 out of the last 5 meetings)

Captain Patrick Paquette (rec. & for-hire)
MA Striped Bass Association
61 Maple Street
Hyannis, MA 02601
Phone: 781.771.8374
BasicPatrick@aol.com
Appt. Confirmed 2/1/10
Appt. Reconfirmed 4/14
Attendance: Excellent (attended 4 out of the last 5 meetings)

Vacancy – Processor/bait dealer

Rhode Island (1)

Philip Ruhle Jr (At-large, comm. trawl – multispecies)
28 Serenity Way
Peacedale, RI 02879
Phone (cell): 401.265.8862
Phone (home): 401.792.0188
FAX: 401.788.8275
pruhle@cox.net
Appt. Confirmed 11/2/09
Attendance: Poor (attended 2 out of 13 meetings since appt; 2 mtgs attended were in 2015); recommend replacement

New York (1)

Mark Phillips (comm/otter trawl)
Seafood Harvesters Association
210 Atlantic Avenue
Greenport, NY 11944-1201
FAX: 631.477.8583
Appt. Confirmed 5/30/96
Appt. Reconfirmed 9/15/00; 1/23/06; 5/10
Attendance: Poor (has never attended a mtg); recommend replacement

New Jersey (3)

Greg DiDomenico (comm.)
Garden State Seafood Association
13103 Misty Glen Lane
Fairfax, VA 22033-5080
Phone: 609.898.1100
FAX: 609.898.6070
gregdi@voicenet.com
Appt. Confirmed 1/23/06
Attendance: Poor (attended 2 out of 16 mtgs since appt in 2006); recommend replacement

Chair – Jeff Kaelin (comm. trawl and purse seine) (5/12)

Lund's Fisheries, Inc.
997 Ocean Drive
Cape May, NJ 08204
Phone: 207.266.0440
Office: 609.884.7600 x213
jkaelin@lundsfish.com
Appt. Confirmed 8/18/09
Appt Reconfirmed 4/2014
Attendance: Excellent

Vacancy – At-large seat

Nontraditional Stakeholders (2 seats)



ATLANTIC STATES MARINE FISHERIES COMMISSION

Advisory Panel Nomination Form

This form is designed to help nominate Advisors to the Commission's Species Advisory Panels. The information on the returned form will be provided to the Commission's relevant species management board or section. Please answer the questions in the categories (All Nominees, Commercial Fisherman, Charter/Headboat Captain, Recreational Fisherman, Dealer/Processor, or Other Interested Parties) that pertain to the nominee's experience. If the nominee fits into more than one category, answer the questions for all categories that fit the situation. **Also, please fill in the sections which pertain to All Nominees (pages 1 and 2). In addition, nominee signatures are required to verify the provided information (page 4), and Commissioner signatures are requested to verify Commissioner consensus (page 4). Please print and use a black pen.**

Form submitted by: _____ State: _____
(your name)

Name of Nominee: _____

Address: _____

City, State, Zip: _____

Please provide the appropriate numbers where the nominee can be reached:

Phone (day): _____ Phone (evening): _____

FAX: _____ Email: _____

.....
FOR ALL NOMINEES:

1. Please list, in order of preference, the Advisory Panel for which you are nominating the above person.

1. _____

2. _____

3. _____

4. _____

2. Has the nominee been found in violation of criminal or civil federal fishery law or regulation or convicted of any felony or crime over the last three years?

yes _____ no _____

3. Is the nominee a member of any fishermen's organizations or clubs?

yes _____ no _____

If "yes," please list them below by name.

4. What kinds (species) of fish and/or shellfish has the nominee fished for during the past year?

5. What kinds (species) of fish and/or shellfish has the nominee fished for in the past?

FOR COMMERCIAL FISHERMEN:

1. How many years has the nominee been the commercial fishing business? _____ years
2. Is the nominee employed only in commercial fishing? yes_____ no_____
3. What is the predominant gear type used by the nominee? _____
4. What is the predominant geographic area fished by the nominee (i.e., inshore, offshore)? _____

FOR CHARTER/HEADBOAT CAPTAINS:

1. How long has the nominee been employed in the charter/headboat business? _____ years
2. Is the nominee employed only in the charter/headboat industry? yes _____ no_____
- If “no,” please list other type(s)of business(es) and/occupation(s): _____
- _____
3. How many years has the nominee lived in the home port community? _____ years
- If less than five years, please indicate the nominee’s previous home port community.
- _____

FOR RECREATIONAL FISHERMEN:

1. How long has the nominee engaged in recreational fishing? _____ years
2. Is the nominee working, or has the nominee ever worked in any area related to the fishing industry? yes _____ no _____

If "yes," please explain.

FOR SEAFOOD PROCESSORS & DEALERS:

1. How long has the nominee been employed in the business of seafood processing/dealing? _____ years
2. Is the nominee employed only in the business of seafood processing/dealing?
yes _____ no _____ If "no," please list other type(s) of business(es) and/or occupation(s):

3. How many years has the nominee lived in the home port community? _____ years
If less than five years, please indicate the nominee's previous home port community.

FOR OTHER INTERESTED PARTIES:

1. How long has the nominee been interested in fishing and/or fisheries management? _____ years
2. Is the nominee employed in the fishing business or the field of fisheries management?
yes _____ no _____

If "no," please list other type(s) of business(es) and/or occupation(s):

FOR ALL NOMINEES:

In the space provided below, please provide the Commission with any additional information which you feel would assist us in making choosing new Advisors. You may use as many pages as needed.

Nominee Signature: _____

Date:

Name: _____
(please print)

COMMISSIONERS SIGN-OFF (not required for non-traditional stakeholders)

State Director

State Legislator

Governor's Appointee

Atlantic States Marine Fisheries Commission

Tautog Management Board

*May 9, 2017
10:30 – 12:30 p.m.
Alexandria, Virginia*

Draft Agenda

The times listed are approximate; the order in which these items will be taken is subject to change; other items may be added as necessary.

1. Welcome/Call to Order (*A. Nowalsky*) 10:30 a.m.
2. Board Consent 10:30 a.m.
 - Approval of Agenda
 - Approval of Proceedings from February 2017
3. Public Comment 10:35 a.m.
4. Review Consistent Management Measures by Region (*J. McNamee & A. Harp*) 10:45 a.m.
 - Massachusetts-Rhode Island
 - Long Island Sound (LIS)
 - New Jersey-New York Bight
 - Delaware-Maryland-Virginia
5. Consider Draft Amendment 1 for Public Comment **Action** 11:15 a.m.
 - Review Management Options (*A. Harp*)
 - Review Law Enforcement Report (*J. Snellbaker*)
 - New York Letter to the Board Regarding the LIS Boundaries (*J. Gilmore*)
6. Other Business/Adjourn 12:30 p.m.

The meeting will be held at the Westin Alexandria; 400 Courthouse Square; Alexandria, VA; 703.253.8600

Vision: Sustainably Managing Atlantic Coastal Fisheries

MEETING OVERVIEW

Tautog Management Board Meeting
May 9, 2017
10:30 a.m. – 12:30 p.m.
Alexandria, Virginia

| | | |
|---|--|--|
| Chair: Adam Nowalsky (NJ) <i>Assumed Chairmanship:</i> <i>05/15</i> | Technical Committee Chair: Jason McNamee (RI) | Law Enforcement Committee Representative: Jason Snellbaker |
| Vice Chair: David Simpson (11/15) | Advisory Panel Chair: VACANT | Previous Board Meeting: January 31, 2017 |
| Voting Members: MA, RI, CT, NY, NJ, DE, MD, VA, NMFS, USFWS (10 votes) | | |

2. Board Consent

- Approval of Agenda
- Approval of Proceedings from January 2017

3. Public Comment – At the beginning of the meeting public comment will be taken on items not on the Agenda. Individuals that wish to speak at this time must sign in at the beginning of the meeting. For agenda items that have already gone out for public hearing and/or have had a public comment period that has closed, the Board Chair may determine that additional public comment will not provide additional information. In this circumstance the Chair will not allow additional public comment on an issue. For agenda items that the public has not had a chance to provide input, the Board Chair may allow limited opportunity for comment. The Board Chair has the discretion to limit the number of speakers and/or the length of each comment.

4. Review Consistent Management Measures by Region

Background

- At the Winter Meeting the TC presented state-by-state harvest reductions; however the Board wanted to see regional management measures that would be implemented consistently by all states within a region. The Board tasked the TC with creating specific regional management options.
- Two regions have to take harvest reductions in Draft Amendment 1 due to stock status: **LIS and NJ-NYB**. The options respective to these regions include traditional harvest reductions related to minimum size, possession limits, seasons, quota. In addition, there are options for a slot limit analysis that would apply to the recreational and commercial fisheries.
- Two regions do not have to take harvest reductions, but are proposing regional measures in Draft Amendment 1: **MARI and DelMarVa**.
- A TC meeting summary discussing the Board tasks and the proposed LIS and DelMarVA options are in **Briefing Materials**.

- The NJ-NYB and MARI proposed options will be in **Supplemental Materials**.

5. Consider Draft Amendment 1 for Public Comment (Action)

Background

- Draft Amendment I includes multiple management options to update the 1996 FMP and proposes a four-region management scenario.
- The LEC discussed splitting the New York into two separate management areas and the implementation challenges.
- New York has submitted a letter of concern regarding the Long Island Sound boundaries, and more specifically the splitting of New York into two regions.
- LEC Report and NY Letter are in **Briefing Materials**
- Draft Amendment I will be in **Supplemental Materials**

6. Other Business/Adjourn

**DRAFT PROCEEDINGS OF THE
ATLANTIC STATES MARINE FISHERIES COMMISSION
TAUTOG MANAGEMENT BOARD**

The Westin Alexandria
Alexandria, Virginia
January 31, 2017

These minutes are draft and subject to approval by the Tautog Management Board
The Board will review the minutes during its next meeting

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INDEX OF MOTIONS

1. **Approval of Agenda by Consent** (Page 1).
2. **Approval of Proceedings of October 2016 by Consent** (Page 1).
3. **Move that the Mass-Rhode Island Region go out for public comment including only the SPR reference points** (Page 16). Motion by Dan McKiernan; second by Mark Gibson. Motion carried (Page 17)
4. **Move that the Long Island Sound region go out for public comment including only the MSY reference points (Page 18)**. Motion by Mark Alexander; second by Steve Heins. Motion carried (Page 18)
5. **Motion to adjourn by Consent** (Page 20).

ATTENDANCE

Board Members

Dan McKiernan, MA, proxy for D. Pierce (AA)
Raymond Kane, MA (GA)
Sarah Ferrara, MA, proxy for Rep. Peake (LA)
David Borden, RI (GA)
Mark Gibson, RI, proxy for J. Coit (AA)
Eric Reid, RI, proxy for Sen. Sosnowski (LA)
Sen. Craig Miner, CT (LA)
Mark Alexander, CT (AA)
John McMurray, NY, proxy for Sen. Boyle (LA)
Steve Heins, NY, proxy for J. Gilmore (AA)
Emerson Hasbrouck, NY (GA)

Russ Allen, NJ, proxy for D. Chanda (AA)
Adam Nowalsky, NJ, proxy for Asm. Andrzejczak (LA)
John Clark, DE, proxy for D. Saveikis (AA)
Craig Pugh, DE, proxy for Rep. Carson (LA)
Ed O'Brien, DE, proxy for Del. Stein (LA)
Rachel Dean, MD (GA)
Michael Luisi, MD, proxy for D. Blazer (AA)
Joe Cimino, VA, proxy for J. Bull (AA)
Kyle Schick, VA, proxy for Sen. Stuart (LA)
Peter Burns, NMFS
Sherry White, USFWS

(AA = Administrative Appointee; GA = Governor Appointee; LA = Legislative Appointee)

Ex-Officio Members

Jason McNamee, Technical Committee Chair

Staff

Bob Beal
Toni Kerns

Ashton Harp
Katie Drew

Guests

Jonathan Atwood, Ofc. Asm. Andrzejczak
Jon Hare, NMFS
Chris Wright, NMFS
Bob Ballou, RI DEM
Tom Baum, NJ DFW
Doug Grout, NH F&G

Jack Travelstead, CCA
Zach Greenberg, PEW
Fred Russo, Long Island, NY
Ilya Elkin, Penthouse Marine, NY
Arnold Leo, E. Hampton, NY

The Tautog Management Board of the Atlantic States Marine Fisheries Commission convened in the Edison Ballroom of the Westin Hotel, Alexandria, Virginia, January 31, 2017, and was called to order at 9:45 o'clock a.m. by Chairman Adam Nowalsky.

CALL TO ORDER

CHAIRMAN ADAM NOWALSKY: Good morning everyone, I would like to call the Tautog Management Board to order please.

APPROVAL OF AGENDA

CHAIRMAN NOWALSKY: Our first order of business will be the approval of the agenda. Does anyone have any requests to modify the agenda? Seeing none; is there any objection to approving the agenda as provided? Seeing none; the agenda stands approved.

APPROVAL OF PROCEEDINGS

CHAIRMAN NOWALSKY: The next order of business will be to approve the proceedings from the October, 2016 Board meeting.

Is there any objection to approval of those proceedings? Seeing none; those stand approved.

PUBLIC COMMENT

CHAIRMAN NOWALSKY: The next item on the agenda will be to take public comment on any item not on our agenda this morning; which would be the tagging trial report or discussion about the harvest reductions and Regional Working Group work for Amendment 1. Is there any public comment not on those issues? Seeing none; we'll move along.

TAGGING TRIAL REPORT

CHAIRMAN NOWALSKY: Next order of business, Ashton Harp will present the Tagging Trial report. Ashton.

MS. ASHTON HARP: I'm going to present the Tautog tagging trial that was done earlier this fall. The tank trial was led by the New York Division of Marine Resources, and conducted at the Stony Brook University, the Flax Pond Marine Laboratory. It began in September and concluded 30 days later in October.

There were originally three tags that we were considering that the Law Enforcement Subcommittee looked at. When these tags were given to the Research Team, they determined that only one tag would actually be feasible for the research study; and I did kind of preview this with the Board as well at the last meeting, but just wanted to give that as a reminder that only one tag, the strap tag which is a mono tag was used in this study.

Actually the Subcommittee feedback on this trap tag was that this was the best option; as far as size and durability. When Law Enforcement had tried to open the tag using pliers, they were not successful. The tag was actually deformed in a manner that would be noticeable. Therefore, the durability of the tag outweighed some of the lack of the color options; since it is kind of a metal tag it doesn't have different colors by state.

At the last meeting there was also a comment made that since this is a fish, it's going to be consumed by humans; does the tag have to comply with some kind of FDA requirements? After the meeting we reached out to the FDA. The response from them was that the FDA does not provide approval or oversight on tags for wild caught fish. This tagging program is in the clear, as far as FDA requirements. This is the strap tag with the applicator. I had done some commercial harvester interviews last year, and one of the things that they had said was it will be really nice if we have to do this that there is an applicator for the tag, for the ease of applying the tag to the fish. This tag does require an applicator to shut the tag on the fish. This next slide is the research team tagging the fish.

You'll see it's going through the operculum bone. This is a tagged fish, so you can see the size of the tag relative to the size of the fish. It is rather small. The last one is the tanks that were at the Marine Lab. There were three tanks that were used to house the fish for 30 days. Now I'm going to just go through some of the tag trial highlights.

Twenty-one fish were collected from the Long Island Sound and transferred to the Marine Laboratory using coolers. Each fish was randomly assigned to be either a tagged fish or a control fish. The control fish did not receive a tag. The trial included 15 tagged fish and 6 control fish.

The tag was placed on the operculum bone using an applicator. The majority of the fish remained calm while being tagged. The exception was that if a tag was not applied properly, which resulted in the fish feeling pressure and thus thrashing and making it extremely hard to apply the tag; but this was not common, as reported in the report.

The tagged and control fish were assigned to one of three large open flow holding tanks, and the research team monitored water temperature, oxygen levels, respiration rates and food consumption while in captivity for 30 days. Initially the fish were slow to move and to eat, so they were just kind of more like lying at the bottom of the tank, which we have seen in previous pictures.

But after two weeks all the fish were exhibiting normal behavior. There were no signs of disease. There were low respiration rates, and the fish were readily and eagerly accepting food when fed. After one week the research team did find one of the tags at the bottom of the tank, so the tag had become loose from the fish. That is because the locking mechanism was not properly engaged during the application. The fish was subsequently retagged.

At the end of the trial when the tags were taken off of the fish, there was some localized damage to the gill, but it was not life threatening or inhibiting the fish's ability to survive. Therefore this tagging trial, there was no mortality and all of the fish were returned to the Long Island Sound. There is also some other tagging tips are included in the final report from the Research Team.

Just most notably, it will take a few fish for a tagger to kind of properly understand how to practice on a fish. Practicing on a dead fish would be one of their main things to do before moving on to a live fish. The Commercial Harvest Tagging Program, the Law Enforcement Subcommittee last year developed four goals for this program, and the goals are paraphrased and italicized on this slide.

The first one is to implement a program that will reduce the illegal, unreported and unregulated fishing that has been persistent in this fishery for quite some time. The PDT is developing a program. At the last meeting the Board said that they would like to move forward with developing a comprehensive commercial harvest tagging program in Draft Addendum I, so the PDT is working on the first objective. The second objective is to have standardized tags across states. All states would use the same vendor to obtain the strap tags. As this trial has determined, the strap tags are useful and they are feasible, and the fish are not harmed as a result of having these tags; so standardized tags across states can be achieved. Another goal is single use tags.

If one attempts to open a closed tag using pliers it is deformed in a manner that is noticeable, as has already been performed by the Law Enforcement Subcommittee. The last objective, which this tag also meets, is to accommodate the live market fishery. The tags are applied to the operculum bone and they do not degrade the meat quality of the fish nor do they restrict the

ability of the fish to eat; so the fish can continue to gain weight while it's in captivity.

As we've shown through the tag trial, the fish did not die as a result of the tags; and they were actually released live back into the Long Island Sound. Actually a very quick overview of the tagging trial, so the full report was released in briefing materials; and if there are any questions on kind of the tagging tips or how the fish were handled during this process, I will take questions on that now.

CHAIRMAN NOWALSKY: Before we go to the Board let me just ask, are there next steps with the tagging study with regards to having any type of TC review; or would you characterize the report available for Board use with regards to the addendum implementing of a tagging program, or do you see additional review steps that are needed?

MS. HARP: I think that we would like to present this to the Law Enforcement Subcommittee again. They had a significant amount of input into this process, and the final report was just released, so it was not released to that committee yet. I would probably hold one more meeting to brief them on the details; and see if there is anything else that they want to review. But as far as a TC review of the tagging trial, we did not feel like that was necessary.

CHAIRMAN NOWALSKY: With that we'll turn to the Board. Are there any questions for Ashton on the program? Dan McKiernan.

MR. DAN MCKIERNAN: Ashton, do you think it would be appropriate to create a video; maybe like a two or three minute video of the proper techniques and handling of fish, so that when you go to the Law Enforcement Committee you won't have to be carrying a bunch of live fish, which could be challenging.

MS. HARP: I was thinking about it more whenever we kind of rolled out the program that

there does need to be some kind of socialization of these tagging; and how to apply the tag properly to the fish, so people are not immediately perturbed by the program when it doesn't work right.

Yes, it would be nice to have some kind of video, and I can reach out to New York to see if they would be willing to do that. I don't think it would be too much. I know that they already have a considerable amount of video that they did, so it might already be on file and I can just check with them.

CHAIRMAN NOWALSKY: John Clark.

MR. JOHN CLARK: Thank you for the report, Ashton. That was really good news. If I recall from one of the previous meetings, sometimes these tautog are kept for up to six months. I was just curious at the end of the trial whether there were any signs that the tag were eroding the opercula there, and it could actually fall off if these fish were kept for much longer.

MS. HARP: When I talked to the Research Team, they seemed to think that the fish were doing fine. They did say that there was some localized gill depletion just like a little bit around. It's in the report. We have specific pictures of where the tag was taken off and you can see there is like a little bit of a mark, of course where there was a tag.

But there was nothing to say that the fish was not swimming properly, eating properly or anything that would limit its ability to live. Whenever they were feeding a fish they were like they had normal feeding behavior after two weeks. There was just an initial shock after bringing the fish out of the Sound and putting it in a tank.

CHAIRMAN NOWALSKY: Okay would there be any objection from the Board for next steps with this, taking this to the LEC Subcommittee? Okay seeing none; that is how we'll proceed. Is there

anything else for the Board on this agenda item, Ashton?

MS. HARP: No.

TECHNICAL COMMITTEE REPORT ON HARVEST REDUCTION AND PROJECTION ANALYSIS

CHAIRMAN NOWALSKY: Our next two agenda items, we've got a TC Report on Harvest Reduction and Projection Analysis, and then a PDT Report from the Working Groups. If you'll recall at the annual meeting we formed working groups, Mass-Rhode Island, New York-New Jersey, Connecticut for Long Island Sound as well, and the Virginia, Maryland, and Delaware; with the goal of how to address a tagging program.

As those calls were initiated, it became apparent that some of the path forward was intertwined with the harvest reduction, and we wound up on the first calls having discussion about the mechanisms for that. We wound up having two sets of calls with those working groups, one on the tagging program; commercial end of it.

Then a second call for two of the three groups the analysis for the reduction and projection analysis was not finalized in time for the Mass-Rhode Island Review, so we elected not to hold that call prior to the meeting. How I propose we proceed, because these two items are intertwined at this point as the Working Group saw it, is to have the presentation for both of the next two agenda items; and then proceed with questions and discussion on both of them without any objection from the Board. All right seeing none; let's go.

MR. JASON McNAMEE: My name is Jason McNamee; I work for Rhode Island DEM, and I am the Chair of the Tautog Technical Committee. We've got a presentation here for you. It's medium in length, so I'll try to get through it pretty quickly. But we had two main tasks that we've been working on; that is to calculate

harvest reductions and then the Board had tasked us with an additional projection analysis. I'll show you some information on that.

METHODOLOGY

MR. McNAMEE: Quick overview, I'm going to go through some information about the methodology used for the various options. We're going to give you, I'll call it a sampling of some initial options that the Technical folks had put together, and then I'll go into the projection portion of the presentation. For the analyses, the Technical Committee calculated harvest reductions to bring F to the target within three years. You had asked for two different probability scenarios, one with a 50 percent probability, and one with a 70 percent probability of reaching the F target in three years. The reductions were calculated on a state-by-state basis at this point.

HARVEST REDUCTION ANALYSIS FOR MA-RI, LIS AND NJ/NY BIGHT

MR. McNAMEE: Just as a note, new ways of managing the fishery, so what you're going to see is kind of your standard approach for calculating harvest reductions. For those out there enjoying the fluke situation, here is more of that. This is standard stuff you've seen already. But there are some alternative ideas that have come up, and that will come up in Ashton's report next.

As you know, the tautog stock will now be assessed with a regional approach. The regions are up there in different colors. You have Delmarva, then what we're calling the New Jersey-New York Bight; so that's New Jersey and the outside of Long Island. Then the Long Island Sound, which is Connecticut and the inside of Long Island, the New York portion of Long Island Sound, and then Rhode Island and Massachusetts up there in blue.

Getting into the methodology for Delmarva, they don't have to do anything; they are at the target

a little bit below the target, when you add in the uncertainty. There was no need for them to calculate any reductions for that region. For the other regions, the methodology in general, one of the first things we did was we removed illegal harvest; so people aren't getting credit for undersized fish and things of that nature.

Illegal fish that are showing up in the MRIP information are removed before further analyses are conducted, the idea being to not give credit for those fish. In addition, with regard to our size analyses, we applied discard mortality; so there would be this new, when you're going up in minimum size potentially there will be this new subset of fish that are now out there but getting discarded.

We thought it was important to account for discard mortality. For tautog there a pretty hardy fish, so it is a pretty low discard mortality; only 2.5 percent of the B2s are assumed to be dead, so it really is not a major impact, but we thought an important one to account for. We used the 2013 through 2015 set of information, so we're taking an average here.

We used MRIP data for all of the recreational information. ACCSP data in some parts for commercial harvest, in particular in the Mass-Rhode Island Region. Then there was also some state-specific harvest and size data, some volunteer angler survey information that were used in size analyses and things like that; so all of that kind of information was approved for use by the Technical Committee, and was used at various points in the different analyses.

Options for the New Jersey-New York Bight Region, the New Jersey-New York Bight Region calculated options to meet the 70 percent probability of meeting the target, the F target by 2020. That resulted in an 11 percent decrease in harvest. Then to meet the 50 percent probability, it was only a 2 percent decrease in harvest.

This bullet is up in all of the different regions, but in the report there are multiple options, all kinds of different ways you can add these things together; different versions of size limits and bag limits and all that sort of stuff. What we've put in the presentation just to save some time, is just again a sampling of those. For the New Jersey-New York Bight Region, were you to institute size limit changes this is basically what you're looking at. If you went up about a half an inch, you would end up reducing harvest by about 16 percent. You can see that doubles as you go up another half an inch to 16 inches. An interesting and important note is for New Jersey and New York, their commercial fishery is managed in the same way as their recreational fishery; so there is no quota in these areas, and so their specifications are set for commercial as well as recreational to achieve harvest targets.

That is why the size information is accounting for both of those. That was the New Jersey information is on the top of that table and then the New York information is below, a little bit less of a reduction for a half an inch increase; and basically across the board there is not as much reduction for the New York information.

Here are some options that are maintaining current size limits, and it shows you what you would need to do with your season. You can see these are moderate in most cases, but the New Jersey season for the commercial side, if there was an 11 percent decrease you would have to reduce by 11 days. Conversely in the recreational side, New York an 11 percent reduction would be about 11 days. There is some consistency between the two states and what they would need to do to achieve these reductions.

Moving on now to Long Island Sound, the Long Island Sound report calculated options for a 47.2 percent decrease in harvest, this represents the 50 percent probability of meeting the F target by 2020. This also in Long Island Sound and Mass-

Rhode Island, there are two variations on what the targets can be calculated for.

Here for Long Island Sound they went with the MSY calculations as an initial cut. If the Board decides that they want to go in an additional direction, the technical folks would have to go back and calculate those. But at least the methodology is sort of set. What this in fact changes is the actual reduction percentage that is needed, so the methodology stays the same; it is just being applied to a different level of harvest reduction.

Again you've got two states here, New York and Connecticut up on the top. What you can see are bag limit and size limit adjustments, and then the number of additional days that you would need to close to meet that 47.2 percent reduction in harvest. If you take that first line there, you would keep that size limit at 16 inches but drop the bag down to one, and that would maintain the current season.

But if you did a similar thing with the Connecticut information you have to reduce by an additional 30 days. Okay the last region we'll talk about is Mass-Rhode Island. This region calculated reductions on a state specific and a combined basis. The previous two regions they were state specific and didn't do any analysis; as far as what it would look like if you aggregated all of the state information and set one set of specifications.

In the case of Mass-Rhode Island, we did take a crack at that combination. Again for these analyses illegal harvest was removed, so there is no credit. But once the proportion calculations were made they were added back in. This is a nuance difference, but it ends up validating the assumption that illegal harvest is not going to stop in total in the following year; but will probably continue forward. The assumption being that it continues forward in some semblance to what it has been in the past. That is something that we'll have to just finalize as a

Technical Committee which version we think is most appropriate, as far as dealing with the illegal harvest that shows up in the data. One other comment, just to jump back a little bit, I talked about the addition of 2.5 percent of the discards being attributed to dead discards; that is only for the recreational fishery, and that is consistent with the assessment.

We didn't deal with the discards on the commercial side, because there wasn't good information on that; and that holds into these calculations as well. Keep in mind that the recreational side represents the vast majority of the harvest in this fishery. Again, as was done for Long Island Sound, there was only one set of options created here, just for brevity's sake.

For the Mass-Rhode Island Region we calculated options for a 60 percent decrease in harvest. This set the goal at the more extreme, so this kind of sets the upper bound on these options. These are calculated to meet that 70 percent probability of meeting the F target by 2020; again using the MSY calculations and not the SPR calculations.

Here is a quick slide on the size limit changes. For Rhode Island going up a half an inch, there is about a 13.6 percent reduction. If you go up a full inch you end up with about just over double that. Massachusetts, it is a little bit more in each case. Then when you combine the two states together you can see it is very similar, going up half an inch to what Rhode Island calculated; but the 17 inch, the one inch increase, you can see kind of shoots the middle between the two states, which makes sense.

Here is a table with some options in them. The first two rows are the Rhode Island specific options, the next two rows down are the Massachusetts options, and then the final two rows at the bottom of this table are the combined states. Again, I won't step through this table in its entirety, but a couple of different options were selected here; one that keeps the

bag limit at three fish, jumps the size limit up an inch, and then this is what the season needs to be to meet the target.

The second option there keeps a two-season approach. Massachusetts only has a single season, Rhode Island has two seasons. The thing that changes in that second season is the bag limit goes up a little bit. You can see the effects of these various dials that we have to work with; with regard to the season that you get. That was it for the options; again there is a lot more information in the reports. But that is just sort of to give you a sense of where your region is at with regards to these options and the harvest reductions that you might need to take.

**PROJECTION ANALYSIS TO ACHIEVE
SPAWNING STOCK BIOMASS THRESHOLD FOR
ALL REGIONS**

MR. McNAMEE: Spawning stock biomass projections, at our last meeting the Board asked the question, thanks for the three year projections, what we would be curious to know now is when does the SSB rebuild? When do you meet your threshold? That is what we went back and recalculated. We just extended those projections out to see when that SSB would rebuild to our threshold. Again we ran three scenarios, status quo, 50 percent probability, and a 70 percent probability; keeping in line with the short term projections we had already done.

Just a couple of notes about projections, nothing you haven't heard before, but the biological parameters such as maturity, natural mortality, weights at age, they were all the same used in the model in the previous projections; so no changes there. The only change from the assessment was the catch weights at age were set equal to the average of the latest selectivity block. That was seen as a best practice, and so we carried that forward in the long term projections as well. These tables represent the results. Again I won't step through; I'll kind of get into the gory details on this first table and then jump through a little bit quicker. On this

table the left hand column that is what your scenarios are, so in each case status quo which is the average three-year harvest. That is what we're calling status quo that is the very first row. Then the two harvest amounts that would reach your specified targets. In this case status quo for the Delmarva Region is about 77 metric tons. To meet the 50 percent probability it actually goes up to 139 metric tons, and then for 70 percent it is 125 metric tons. The second column in there is your probability of being at or below the F target.

One note, so again just to reiterate, status quo is an average so it could be, and that's what you're seeing here. That average is either a little bit above or a little below what that terminal year estimate is, and so that's why you'll see in the coming tables that that number in the status quo row will change; depending on the region that you're in.

We already noted that Delmarva was right around the F target already, and so that's why they're almost 100 percent in that status quo category. The middle column there is the probability of being at or above the SSB threshold in the short-term projections, and then the final column gives you the year when the SSB would cross the threshold at these various harvest levels.

You can see in the case of Delmarva, the probability of the SSB being at or above the threshold, not quite as rosy as being at the F target; but they rebuild in relatively short, relative to some of the other regions short timeframe, so 2020 or 2022; depending on the scenario you're looking at. One final note on this one, Delmarva, it was decided already that they would be using SPR calculations in their analyses.

New Jersey-New York Bight also decided that they would be using SPR calculations. The MSY calculations from the assessment were deemed not appropriate for management use. Again you can see the short term information there. But

then pretty far out before that SSB reaches the SSB threshold, in this case 2046 under status quo.

It does rebuild under status quo, which is good news; but it takes a long time to get there. Even under the other scenarios it is a slow growing, long lived fish. These things shouldn't be too surprising. Long Island Sound, in the case of Long Island Sound we're still undecided as to which reference points we're going to be using SPR or MSY.

There are two tables for Long Island Sound, the first are the SPR calculations, and you can see really low probability of being at or below the F target. Under status quo, really low probability of being at the SSB target and it takes a real long time under status quo, 2238 before you rebuild the stock in the Long Island Sound Region.

Under the other two scenarios, because they're pretty significant cuts, very significant cuts from the status quo, these rebuilding timelines aren't that far out, 2021 for the SPR calculations. For MSY, again not too different by way of information there under status quo, it does rebuild, but it takes a long time.

Then because of the significance of the harvest reductions to meet the F targets, rebuilding occurs relatively quickly for Long Island Sound. Mass-Rhode Island, a quick note in the original short-term projections when we met as a Technical Committee, someone noted the really tight confidence bounds on the information and I went back and checked and found an error, I was pointing to the wrong file in the projection module; and so I corrected that. It doesn't have a very meaningful impact by way of the information you've already seen, just adjust the harvest levels a little bit more and actually puts a little more spread between the 50 and 70 percent probability targets, which makes a little more sense.

Again, status quo is about 390 metric tons. These are the SPR calculations. Again Mass-Rhode Island it's unsettled as to the reference points that we're using at this juncture. Status quo under SPR, there is a zero percent probability of being at or below the F target. Very low probability of being above the SSB threshold and it takes until 2025 to get there under status quo.

A little more optimistic as far as SSB, but again has to do with the degree of cut needed to achieve the F targets. Then MSY calculations, under status quo the population go extinct. It never reaches the SSB target and in fact goes to zero or pretty close to it. Again, you can see under the other two targets much bigger cuts needed in the harvest. Under the MSY calculations it takes a little longer for SSB to rebuild as well.

Okay almost done, two quick slides on caveats. These are obligatory Technical Committee caveats on projections and the options that we've created. The projections didn't include any structural model uncertainty. They use a bunch of deterministic functional forms and a lot of the information such as recruitment in some cases, or selectivity.

The fisheries are assumed to continue at current allocations using current selectivity; not as bad an assumption for tautog, it's a pretty large component as all the same fishing gear, rod and reel. Just to finish that caveat. New management regulations that alter the proportions or selectivities would affect the projection results.

Again, if future recruitment is characterized by long runs of large or small year classes due to any number of different reasons, the stock trajectories may be affected and so they won't be as reliable if things happen that are outside of the average. Then final caveat, the options are premised on future years harvest occurring in a similar fashion to the average; so seasonal

harvest rates, bag limit achieved per angler, population size structure.

All of these things are assumed to be fairly consistent moving forward, at least into the near future. That is what the options are premised on. I think we are not going to take questions yet, but we're going to go right into the next presentation. There is just a final slide that we can come back to; I think maybe at the end that summarizes the options and how they kind of differ from each other.

CHAIRMAN NOWALSKY: With that last slide anyone can have thoughts about how to fill in that question mark about what the tautog is actually thinking, and we can have discussion about that later if you'd like. Because we did have quite a bit of discussion about the items that Jay just presented at the working groups, we're going to go right into those slides; and then we'll take questions for the combined presentations.

PDT REPORT ON REGIONAL WORKING GROUPS

MS. HARP: I'm going to go through the Regional Working Group Feedback. At the October, 2016 meeting the Board reviewed seven potential issues to include in Draft Amendment 1. The first three are grayed out because the Board deferred any decision to kind of public comment. The public will review the MSY and SPR reference points as noted by Jay for the Massachusetts-Rhode Island and Long Island Sound Regions; as well as metrics respective to a 50 percent and a 70 percent probability of achieving F target.

The amendment will not include options for a rebuilding plan; instead a rebuilding plan will be included under adaptive management as something that could be considered into the future. Issues 4 through 7 were deferred to further discussion by Regional Working Groups. Three working groups were created and the most working groups, as Adam mentioned met via conference call twice to discuss these issues.

OVERVIEW OF TOPICS AND WORKING GROUP INPUT BY REGION

MS. HARP: On the first call the working groups discussed potential commercial management measures to implement the commercial harvest tagging program. We received quite a lot of feedback on how to potentially manage the commercial fisheries to kind of account for how many tags need to be distributed per region. The group also discussed differential sector reductions, so should the commercial or recreational sector take a larger cut than the other; and all regions decided that a 50 percent cut for each is preferred.

On the second call the working group reviewed the TC Harvest Reduction Analysis that Jay just presented for these regions. Based on those inputs and based on the options provided, based on some of the severe cuts that some regions need to take; these regions provided input on how to manage the fishery within each region, or potential ways to manage the fishery in options that should be included in Draft Amendment 1 for the public to consider.

An overview of the presentation, so I'm going to go through each regional working group and I'll kind of start with the reference points, then an overview of the discussion; followed by the PDT guidance that was given by each group. Each group kind of said; include these options in Draft Amendment 1 but not these options.

That was just kind of for the PDT to think about as they continue to craft the document. Lastly, Regional Working Groups kind of said, okay we're reviewing this harvest reduction now so that you present it, and we kind of have some additional TC tasks that we would like the Board to consider at this meeting.

If the Board thinks that these are valid tasks then the Board would have to actually task the TC with moving forward with these. These are kind of alternative ways of managing the fishery. I'm going to start with Delmarva. The Delmarva

reference points as you can see the region, the stock status is overfished but overfishing is not occurring, therefore the region did not have to take any harvest reductions.

However, the group still met to discuss all of the issues that I just mentioned. There was kind of a general agreement to propose measures that will not greatly expand the fishery. On the first call there was a discussion of just rolling over the status quo measures. Since those seemed to suffice, the fishery seemed to be doing well, it is not overfishing.

On the second call there was more of a discussion about having consistent measures across the region. There was just kind of some impetus to say let's think about a different way of managing this fishery. The stock is overfished in this region, and if we can come together to have consistent management measures then this is the time to do it. As far as commercial regulations on the first call, what was discussed was that Virginia harvests the majority of the commercially caught fish in the region; therefore they would be considering a hard commercial quota. Delaware and Maryland are considering limited entry programs to cap effort and provide adequate accountability to distribute the tags.

This is a little bit tricky, so the sights would have to meet annually to discuss this soft quota for the region, and then how to kind of allocate how much Virginia is going to have for their hard quota. As far as PDT guidance for Draft Amendment 1 from the Delmarva Region, they want to include option for a limited entry program.

The states, it is not like they want to move forward with limited entry program, they want to see if this is what stakeholders want as the best way to kind of allocate tags. They want to include an option that requires the sale of tautog to a federally permitted dealer, to also improve on the accountability and transparency of how

these commercially caught fish are moving through the market.

They also want to insure that the gear restrictions align with black sea bass gear restrictions, so we're pretty sure that they do. The PDT just needs to double check to make sure they do, since tautog is often caught as bycatch in that fishery. Also since there is kind of one state is considering a quota and the other states are not, they want to require state quotas to be reviewed by the TC and the Board prior to implementation.

Lastly that de minimis states would be required to participate in a commercial harvest tagging program, so they would not be exempt; and this is kind of a recommendation from the Law Enforcement Subcommittee that they felt that that should be implemented, not only for this region but also kind of for the fishery coastwide.

For the TC task to consider, so as I said on the second call there was kind of some thinking of well okay what if we do have consistent management measures. Is it possible for the TC to evaluate the impact of a uniform 16 inch size limit and possession limits across the regions, and then also only closing for spawning closures?

Right now that there are a lot of different closures within each region and they are saying if we were to kind of increase the size limit to 16 inches, which is an increase for some of these states, and make the possession limit the same, maybe we can only close just for spawning time periods; not have these extra closures.

They're asking for the TC to kind of do this analysis, and one part of that would be that the TC would need to research the peak spawning time periods for tautog in this region. Moving on to the next working group, the second working group consisted of Long Island Sound, a region that is overfished and overfishing is occurring, when you look at either the MSY of the SPR

reference points that are both presented on this slide.

This working group also included the region of New Jersey and New York Bight. This region is only considering SPR reference points. The status of the stock is overfished and overfishing is occurring. On the first call the group met, and as I said it was pretty much geared around the commercial regulations to implement this tagging program. Connecticut is considering a lottery or a lease scenario. They were pretty adamant on the call, at least at that time, not to allocate based on history. They didn't want to kind of exclude people from joining the fishery; so they thought his was a more fair way of kind of issuing tags, but also capping effort. New York was considering a limited entry program.

They also said they may consider a quota down the road, but they would like to see how the limited entry program kind of worked to begin with, and how many people were actually in the fishery, how many tags would be given out; before they kind of got locked into a quota. New Jersey has already implemented a limited entry program; and already has a commercial quota.

After seeing the harvest reductions for the Long Island Sound, they're facing some pretty steep reductions, and so they wanted to explore new ways of managing the fishery in Draft Amendment I. I'll explain that more in TC tasks. There was also quite a bit of discussion about the complicated spawning pattern for tautog in that some of the states don't have closures during what would we consider, without even doing more research as a spawning time period for tautog.

They were thinking that maybe all regions should kind of be, as Delmarva said, on the same page as far as spawning closures, and institute those at the same time period to protect these spawning fish; because in most cases the stock status for spawning stock biomass is overfished. For PDT guidance that they gave for Draft

Amendment 1, there was a general agreement to explore a consistent minimum size and seasonal spawning closures across the two regions.

I just wanted to give options to illustrate that. They wanted to also include in the document that the spawning closures should be included in recreational and commercial measures; to protect brooding females and large males. There was quite a bit of discussion over that. Are we just protecting brooding females, and shall we just do it in one part of the sector of the fishery and not the other?

After the discussion it came out that no, it should be in the recreational sector as well as commercial sector, it should be protecting females and males; they are both necessary to protect and kind of expand the biomass of the fishery. There were some options included that Jay noted that did bring up the minimum size limit to 16.5, 17, 18 inches.

The states did not prefer anything more than 16 inches. It did come out on the call that there is a biological justification for this. As you increase the minimum size, then you are having more fishing effort on larger females, which produce more eggs, which could also have an unintended negative impact on the fishery; if people just start targeting these large, brooding females or just large females in general.

There is also a concern about compliance. If we were to continue to increase the size limit, there is a high level of noncompliance in this fishery. There is a black market in this fishery. This could just further exacerbate that noncompliance if we could just continue to raise the minimum size limit.

There was discussion about the implementation of harvest reductions should happen concurrently with the commercial harvest tagging program. This is a really interesting point to bring up, because in other meetings we had

kind of discussed the commercial harvest tagging program might take a little bit of thought. It could be an addendum to the Draft Amendment 1 if it's not ready. How this came about was that it probably shouldn't happen that way. They should probably implement it together, because legal fishermen are looking at some pretty steep harvest reductions in their regions; and it would be seen as vastly unfair for those fishermen to have to take the first cuts while the black market fishermen, which is really what the commercial harvest tagging program is targeting, would not have to take cuts until later or whenever that would happen.

They want these cuts to happen, or these limitations to happen at the same time for legal fishermen and seemingly illegal fishermen. The PDT noted that and will of course make every effort to include the commercial harvest tagging program in a draft amendment; and it won't be considered as an addendum.

There were also comments to consider a date for the commercial harvest tags, such as when they should be returned by, just like a detailed question, but just to say the tags need to be returned. You can't continue to get tags year after year if you haven't returned them; so possibly February 15th is when people should return the tags or they wouldn't get tags for the following year.

Then as we saw, this region is unique in that New York is split between two regions. This is something the PDT will have to think about as kind of a unique tag code for New York's Long Island Sound fishery versus New York South Shore fishery. For the TC tasks for the Board to consider, as I mentioned this region was also interested in making sure we have spawning closures at the right time.

The TC would need to research peak spawning time periods for tautog. Also, two ways of evaluating the impact on potential harvest, one is implementing a slot limit. The slot limit would

be implemented, and then there would be similar seasonal closures; including spawning closures across the region.

That is a completely new thing. This was not discussed in any other region, but when they were facing those increasing minimum size limits there was a thought that maybe a slot limit would be a way to kind of avoid that. Another way of looking at how to implement the harvest reductions would be to have consistent minimum size limit, either 15 or 16 inches; so both would be shown, as well as seasonal closures including spawning closures, and similar bag limits across the region.

Once again kind of a way to look to have consistent measures across the region, knowing that if one area closes in one state, especially in these two regions; if you're in New York you'll just go to the other state, and you know how to kind of squash that kind of behavior from happening or limit that behavior and trying to really think about how we reduce harvest for this fishery. Not just have regulations where people just go across state lines to where it benefits them.

Lastly, we have the Massachusetts-Rhode Island Region. These will be taken out for public comment as MSY and SPR reference points. The SPR reference points indicate the region is not overfished and overfishing is not occurring. The MSY reference points indicate the region is overfished; but overfishing is not occurring.

**PDT/WORKING GROUP RECOMMENDATIONS
ON HARVEST REDUCTION OPTIONS FOR
DRAFT AMENDMENT 1**

MS. HARP: This region only had one call due to some scheduling conflicts, so this region did not see or preview the harvest reduction analysis that was just presented. But on the first call the region actually kind of jumped into discussing regional management; a little bit more than the others did, so there was some progress made on that. Two ways of regional management that

this group was considering was that they could allocate the regional maximum harvest by state. Not just a commercial harvest, the overall maximum harvest for this region, they would come up with a way to allocate it by state based on some review of history over a three, five or ten year timeframe.

The region would still have to present the proposed recreational measures and commercial quotas for the TC and Board for review as well. But they would kind of take the lead on thinking about how to allocate this maximum harvest. The second way that they were thinking was the region was considering consistent recreational management measures across the region, and then managing the commercial fishery with a quota.

Each state already has a quota, they want to continue using the quota; however, it is to be determined if it would be a state quota or a regional quota. I also wanted to note that Rhode Island has a quasi-limited entry requirement, and Massachusetts may consider a limited entry program. There was, and this kind of came up throughout some of the other regions as well.

I was thinking about tautog as bycatch, and kind of how to include them into a limited entry program if people are catching black sea bass, but they're also catching tautog quite frequently. That was the quick overview of the feedback that I got from the Regional Working Groups; and I'll take questions as well as Jay will take questions on the TC analysis.

CHAIRMAN NOWALSKY: All right great. Our goal here today we'll ask questions, we'll have discussion. But the goal here today for this group would be whether to task the TC with answering or attempt to answer the questions that were raised regarding how to take the reductions and the development of other commercial programs. Do we have any insight, Ashton about how if we tasked all of those items it would impact the schedule timeline for the amendment at this present time?

MS. HARP: It would impact it. These Regional Working Group discussions came about like two weeks ago; so they were quite recent and not enough time to schedule a TC meeting to fully review the impact of these. I can defer also to the TC too, but these are just vastly new ways of thinking about how to manage the fishery; and it will take the TC time to calculate how to do consistent management measures across the region, so it will delay it. How much, I'm not sure.

CHAIRMAN NOWALSKY: We'll turn to the Board for questions about the presentations and then after we have a question period, we'll then turn towards how the Board wants to proceed. We'll start with Dan McKiernan.

MR. McKIERNAN: My first question is for Jay. In your presentation you talked about illegal fish in the assessment, credit won't be given for illegal fish et cetera. But it seems to me that that illegal fish that you're detecting is only the illegal fish in an MRIP interview where an angler says, yes you can look at my fish; and lo and behold there are some undersized fish, and that shows up as an illegal fish.

Would you consider broadening, in terms of the presentation, the recognition that the illegal fish is probably much broader; in terms of the conspiracy to take small fish? The greatest hits of coastal law enforcement in the last couple years have been sea bass and tautog busts. Tautog of course is so well known that we're about to endeavor into a very administratively burdensome tagging program. Would you consider changing the focus of this consideration of the illegal catch to at least mention those other areas?

MR. McNAMEE: Really good point. Just to restate what we did. It was exactly as you said, just the illegal harvest that shows up in the MRIP data; presumably by folks that don't know that they're doing something wrong. I imagine the illegal harvest is not well represented by that

information; there are probably larger – how to quantify how much larger – that is always the struggle that we have. But you're absolutely correct that this is mostly likely an under representation of illegal harvest. We've not accounted for it in total by any stretch.

CHAIRMAN NOWALSKY: I think Joe, is that a hand? Great; good morning, Joe.

MR. JOE CIMINO: Very different question, but I think this is still for Jay. One of the slides that talked about increasing size limits and the biology of the species, I don't remember seeing anything in our working group. I feel pretty sure we didn't. Has the TC examined sex ratio? We have a lot of sampling, and even regionally you should be able to do it, kind of where males start dropping out and where percentage of females at a certain size.

MR. McNAMEE: That wasn't considered for this scope of work. I guess sex ratio is an important consideration. Another one that we have discussed a lot is also the fecundity impacts; it's an exponential relationship with size and fecundity. Neither of those things was considered in the analyses we did.

CHAIRMAN NOWALSKY: Follow up, Joe?

MR. CIMINO: I guess would that be something that would be forthcoming? To me it looked like one of the tasks, I think it was the New York slide, suggesting that a maximum size wouldn't go above 16 inches. Just curious if that is what that was referring to.

MR. McNAMEE: I'm sorry, Joe, could you repeat that? I'm not sure I understood your question.

MR. CIMINO: Yes, and maybe if we can get Ashton to help. I thought that one of the Working Group slides suggested that a max of 16 inches would be considered for biological reasons. If that is true then would there be an analysis that suggests that is a real cutoff?

DR. KATIE DREW: The discussion about a maximum biological size limit or a biological justification for not raising that minimum size only happened at the Working Group level. I think if the Board is interested in that kind of information they could certainly task the TC to come back and look at that issue. But it was not something that was discussed as part of the options that we developed to talk to them.

CHAIRMAN NOWALSKY: Additional questions on the presentations. Dan is going to take another bite at the apple.

MR. McKIERNAN: In the talk about slot limits, was there any consideration given to slot limits on the commercial sector? I ask that because if you're trying to hand out the appropriate number of tags, if you knew the size range and the weight range you could probably narrow that number more effectively. Plus I think typically in the market, smaller fish are being preferred anyway. Did that come up at all?

MS. HARP: We did discuss that the smaller size, I mean like a plate size 12 inch fish is like the preferred size for the illegal market. But as far as whether it would cross over between commercial and recreational, I don't remember that specific discussion; someone else could, but we just kind of discussed slot limits in general.

CHAIRMAN NOWALSKY: Follow up.

MR. McKIERNAN: It is unrelated. I know we didn't get to talk about this as a group, Mass and Rhode Island, but in your slide you mentioned one of the bullet points was a state allocation within the regional management approach. Is that even necessary? If we have quotas and we let the recreational fishery proceed with common limits.

Do you think or does the Board think that it's necessary for states to continue to have this rigid pie sharing? I think that we all believe the striped bass model is one of the most successful

ASMFC models, and in that fishery we do not have recreational shares of the total take. My vision is to create within Mass-Rhode Island a striped bass like model.

Where if MRIP comes back and shows the recreational fishery larger in one side of the other, or if for some reason one states fishery was more active. I don't know if we want to constrain that. Did you consider that? How did you get to that? How do we get to a conclusion that there would need to be sharing or specific shares?

MS. HARP: Are you talking about the first pathway for the Massachusetts-Rhode Island? There were only two people on the call. The other state kind of thought that might be a better way forward. I would have to look at my notes as to how we got to that. But it was just kind of a way to provide more flexibility for the region.

Saying this is the maximum harvest and these states can allocate how they want; to have the states manage their fisheries. That wasn't really saying that there is going to be consistent management measures, it was just kind of saying that this is the way we think might be a more flexible way of doing it.

CHAIRMAN NOWALSKY: Okay so I'm not seeing any additional hands for questions. I think our next area to cover is discussion about how to proceed with this amendment. Specifically what we would need, we have a couple of known items that will be part of a draft amendment. That will come back to this Board for review before going out to public comment; with regards to the discussion about which reference points to use.

Long Island Sound and Mass-Rhode Island, SPR/MSY as well as allowing the public the opportunity to comment on which probabilities of achieving the F target we're going to manage with. Where that leaves us though is still further

developing the tagging program. We got the report about the trials. Now as a result of the Working Group calls since the last Board meeting, we have a number of tasks that I had asked Ashton to frantically try to quantify for us and put up in front of us; so we can all look at what those are, which would likely delay. Is it fair that if we did not have the TC tasks that the PDT would be prepared to have a draft amendment before us in May, with no additional feedback?

I guess we need two pieces of information. What additional feedback do we need from the Board today to give the PDT to bring a document to us in May, versus this Board asking for additional tasks; and would that likely put us off until August or sometime further down the road?

MS. HARP: What I gather is we don't really want to continue to delay this Draft Amendment 1. The PDT needs to continue moving forward on the tasks that it can or the issues that it can. The main issue that I would say that would only be the real delay is the regional management issue. There were a lot of other issues, for the commercial harvest tagging program, for other things that we can move forward on.

Some of these specific details on these options that the TC is considering, it's not like they're going to go in Draft Amendment 1 specifically. They are not going to be hard coded in Draft Amendment 1 that this is going to be the bag limit for forever. Those things are always up for debate, depending on the stock assessment.

To a certain degree it doesn't have to delay the document. It doesn't have to delay the document, but we need that information prepared for whenever we go out to public comment. I know that's not like a concrete answer. But I think the PDT can continue moving forward on the document and then kind of see what the TC has together and to see if that is enough to show the public.

CHAIRMAN NOWALSKY: That would be with no further Board input today.

MS. HARP: I'll think about this.

CHAIRMAN NOWALSKY: All right we'll give Ashton a moment. Does anyone have additional discussion, thoughts? Dan.

MR. McKIERNAN: A question for you Adam. Given that the document is going to go out, and I'm fairly confident how the public and Mass and Rhode Island might respond to the MSY versus SPR reference points. Can this Board vote today to choose one to make the document a little cleaner?

CHAIRMAN NOWALSKY: The Board has taken that action in other regions. We've taken the action on whether to include a rebuilding plan. I would say it's within the scope of this Board to do that. I would just have to turn to Toni to see if there is any element of reconsideration here. I don't recall if we had specifically taken a vote to include MSY and SPR reference points in the document that we're effectively reconsidering, or whether this would just be a new decision point that we're having here today. I would have to turn to Toni for a clarification on that.

MS. TONI KERNS: I don't recall whether or not you guys did any decision making or votes on it. But because they were not final decisions, because you hadn't finalized the document yet, you are at a new meeting so you can bring up new concepts and ideas without having to go through the revisit two-thirds vote. You can make that any motion that you want on that at this meeting.

CHAIRMAN NOWALSKY: Okay so I think that answers that. We'll have those lists of tasks up here in just a moment. Was there anything you wanted to proceed with, Dan, after those last comments?

MR. McKIERNAN: Can I make a motion that the Mass-Rhode Island Region adopts for the public hearing document only the SPR reference points?

CHAIRMAN NOWALSKY: You can make that motion. Do we have a second on that motion? Second from Mark Gibson, let's take a moment to get that up on the board. Okay so we have a motion to move that the Mass-Rhode Island Region go out for public comment only to include the SPR reference points. Motion by Mr. McKiernan, seconded by Mr. Gibson, is there discussion on the motion? Mark, go ahead.

MR. MARK GIBSON: Could we just get a quick refresher, particularly from Mass and Rhode Island. Could you show us that table again, the difference in the stock status relative to the two different reference points first; and then I would like to hear from Jason and the Technical people about why they feel, they had some confidence in the MSY calculations based on estimation of the stock recruit slope; so I would just like to hear a summary of that again.

CHAIRMAN NOWALSKY: Great Jay, if you could go ahead and comment while they're bringing up that slide. We've got three things going on at once, the motion, the list of TC tasks and now going back to another slide; so thanks for your patience. Jay.

MR. McNAMEE: Very good question, I will do the best I can to search the memory banks here. I think the easy one is in looking at the output from the stock assessment for the Mass-Rhode Island Region, the relationship looked reasonable, the model was able to estimate steepness; the steepness parameter.

I guess that was the first order, kind of decision we made was in the Delmarva and the New Jersey-New York Bight. It was not able to estimate any sort of relationship however, in Long Island Sound and Mass-Rhode Island it was. I think at that point we started to think a little bit

about the biology and what the relationship parameter estimates were saying.

I think we felt comfortable with that information as well that it seemed reasonable for an animal that we knew to be slow growing, long lived. I'll kind of yammer for another minute here while I'm trying to think if there is anything else. But those were the two big ones from what I can recall. I don't know that there was any other.

I guess the final one more of a qualitative assessment was I think in particular, because of the low abundance that we've seen for so long since going way back in the time series of information that we had. We felt that it was probably not reasonable, the stock status determination that was coming out of the SPR calculations. Taking all of that information in a weight of evidence kind of way; that is why we I think decided in the end to recommend MSY for Long Island Sound and Mass-Rhode Island.

CHAIRMAN NOWALSKY: We're also going to have staff, they had prepared in anticipation of a question that what would, we haven't seen it yet, but what would those impacts of the reduction between the two reference points be, so we're going to have that slide pulled up in just a moment.

MR. McKIERNAN: Jay already told us that under the MSY calculations this stock is going extinct at status quo, which to me is difficult to swallow; because we have a very conservative management approach and we're about to make it more conservative, which I'm certainly willing to do. But I just think it is a difficult sell to the public to suggest that the level of conservation that we have currently, is going to create a trajectory that will lead to extinction. That is status quo.

CHAIRMAN NOWALSKY: Okay and the slide is up on the board that would basically show what the change in fishery performance would need to be,

based on SPR versus MSY. Yes, Jay, did you have another comment for us?

MR. McNAMEE: Yes, a quick comment to what Dan just said. I appreciate his comment, because that was being a little glib. I mean that is what the projection showed. I think the important consideration is in the Mass-Rhode Island Region in particular, the annual estimate of recreational harvest can jump quite a bit; and has in the past three years. I think that's more what it was indicating is that average of 390 metric tons. That was what the projection showed that if you maintain that moving forward it declines.

But I don't think that is indicative of our current management necessarily, because the year prior to that it may have dropped by, I don't know 50 percent or something like that. Those may have been, long story short, the 390 metric tons is an average of the three years; and there is high variability in that estimate year to year. I think that's why you get that outcome. It is not necessarily a statement about our current management specifically.

CHAIRMAN NOWALSKY: Further comments or is the Board ready for a caucus followed by a vote? Okay seeing no other hands up, I'll give the Board a moment to caucus. We'll go ahead and take a vote. **Again, move that the Mass-Rhode Island Region go out for public comment including only the SPR reference points. All those in favor of the motion, please raise your right hand. Please, put your hands down. All those opposed, please raise your right hand; abstentions, two abstentions, null votes. Motion carries by a vote of 7 in favor, 0 opposed, 2 abstentions.**

With that I'll just bring to the Board's attention that for three of the four regions we're now using SPR and that leaves only Long Island Sound as a potential decision point, which the PDT would have to work on to include in the document. I'll put out there, does the Board want to have discussion.

Maybe staff could just bring up those Long Island Sound reference points, and have discussion about do we want to continue to have this question in the document. Long Island Sound would now be the only region for an MSY versus SPR decision. Having it in the document provides opportunity for public comment.

It also provides opportunity for the public to discuss why wasn't it included for the other options? I thought I would put it out there, given that action for consideration. Mark Alexander.

MR. MARK ALEXANDER: Jason, I think I heard you say that the PDT favored MSY for the Long Island Sound Region. Is that true and could you elaborate on that please?

MR. McNAMEE: Yes it was the Technical Committee, and that was the discussion. It was very similar to that had for the Mass-Rhode Island Region; again the model was able estimate steepness. The steepness parameter that it was estimating seemed reasonable for tautog. It was the same exact discussion for Long Island Sound that we had for Mass-Rhode Island. But yes, I'm sorry, to answer your question. The recommendation from the Technical Committee was to use the MSY calculations.

CHAIRMAN NOWALSKY: Mark Gibson.

MR. GIBSON: I appreciate you bringing that up, because I was expecting that there would be a motion to amend the Long Island Sound Region to add them to the past motion; that didn't happen. I would just point out a couple of things that just does leave the complication in the action that the public is going to struggle with; albeit at a reduced geographic scale.

Also it is so inconsequential at this point. The SSB thresholds and the F thresholds are well within the statistical uncertainty of their estimations. There is really no difference between those numbers. I'm not going to make the motion on behalf of my Long Island Sound

colleagues, but it seems to me it's unnecessary to have this choice in the addendum at this point.

CHAIRMAN NOWALSKY: Again, it is entirely up to the will of the Board. I'm going to have staff just put up a similar slide that we looked at for Mass-Rhode Island that would show a comparison of the reductions. Okay so that's a comparison of the reductions there for Long Island Sound is in the top two-thirds of that chart. All right I'm not seeing any, oh there we go. Mark.

MR. ALEXANDER: I'll offer the motion for the Long Island Sound Region that we opt for an MSY approach.

CHAIRMAN NOWALSKY: Okay so we have a motion to use MSY for the Long Island Sound Region. Steve is seconding the motion, so we have that motion from Mark Alexander seconded by Steve Heins. Discussion on the motion? Mark.

MR. ALEXANDER: Well, I would just like to offer that the Technical Committee does support this approach for Long Island Sound. I think just because it differs from the approaches preferred by the other regions that that is not really a valid reason to reject going with this approach here.

CHAIRMAN NOWALSKY: Okay let me see a show of hands of people that want to comment on this. All right so seeing none; we have a motion to use the MSY reference points for the Long Island Sound Region. I'll give the Board a moment to caucus. Okay all those in favor of the motion, please raise your right hand.

Please, put your hands down. **All those opposed to the motion raise your right hand, abstentions; you can put your hands down, null votes. Motion carries 7 in favor, 1 opposed 2 abstentions.** I'm hearing smiles from the PDT.

**BOARD GUIDANCE TO THE PDT ON
DRAFT AMENDMENT 1**

CHAIRMAN NOWALSKY: Okay that brings us next to the list of TC tasks. Are we ready to put that slide up to have discussion amongst the Board about how we want to proceed with potentially tasking the TC to look at these before further development can be done by the PDT? Ashton, if I heard you correctly, it was really the regional component of this, which is the last bullet point of what's up that would potentially have the greatest impact on a timeline for continued development of the document.

MS. HARP: Yes, so it is just a different way of looking at the harvest reductions; with a regional approach, with consistent management measures across the region. I was wondering if I could ask the TC, like what is involved with doing that considering this is time periods when other states are not fishing, but now that they would be fishing. How do you analyze that and what are the complexities involved?

CHAIRMAN NOWALSKY: Jay, not to put you on the spot or anything.

MR. McNAMEE: No that's okay; I can answer because that was what delayed the Mass-Rhode Island calculations, because I thought we were doing that originally. It makes it difficult, not impossible. However, what happens as you increase the amount of uncertainty that you are putting into the management decision, because of the assumptions that need to be made.

For instance, if there is a closed season in one state and an open season, you need to make and now you open during that period of time you need to make some assumptions about the state that was closed and their harvest rates during that period of time. I won't itemize all of the millions of different ways that the uncertainty increases. But it makes it difficult, it's not impossible, but it is a significant amount of work; in particular for the regions that haven't already done it. I see it being about equal to the amount

of time they probably already spent on crafting their options.

CHAIRMAN NOWALSKY: I guess that brings us back to the question of, would it likely delay a draft amendment from coming before this Board in May?

MS. HARP: I think that the PDT can continue working on the document and all of the issues that we already have made decisions on. Then just kind of be ready to have some options that are kind of prepared for consistent regional management within regions. We could do that. I could go back to the PDT.

Say, for the regional management we can have some different ways of looking at regions; would it be consistent management measures or would it be state-by-state specific? It would just be a little bit more work, but I don't think it has to delay it. Because a lot of the options that are going to come out of this, they're not going to be hardwired in the amendment.

CHAIRMAN NOWALSKY: Okay, so I don't think we would necessarily need a specific motion from the Board for these tasks, but I would just ask if there is any objection to moving forward with tasking the TC to look at these issues. Seeing none; are there any tweaks, changes, clarifications anybody needs?

There was one question on here to include that conversation for slot limits for both recreational and commercial. Because nobody clarified one or the other, I would interpret that as asking the TC to potentially look at both. Where that leaves us is the TC will look at these issues. Would you propose having them brought back to the Working Groups prior to May?

MS. HARP: I see no reason. I think it might still be under a tight timeframe as it was this time; so I wouldn't expect them months in advance. I want to have the TC an adequate amount of time to prepare these; given the amount of work

needed. We can do two weeks before, or maybe a little bit more, time before the meeting to kind of preview the results to have that initial discussion. I thought that it was really helpful to have those kinds of initial discussions, and very kind of candid Regional Working Group discussions prior to this meeting.

CHAIRMAN NOWALSKY: What I'm hearing is that assuming the schedule allows, we would reconvene the working groups another time to have discussion about that; and the expectation would be the PDT would bring a draft document before the Board in May. Okay, further discussion. Mark Alexander.

MR. ALEXANDER: I just wanted to add one thing to the slot limit. Because tautog is a popular fish for spear fishermen, managing under a slot limit may be a little difficult unless the measures that are developed, relative to a slot limit, includes say one fish in the slot and one fish just bigger than some minimum length. I think that may make compliance by the public a little easier when it comes to spear fishing.

ADJOURNMENT

CHAIRMAN NOWALSKY: Any other comments? Is there anything else from staff regarding needs on this topic? Okay, is there any other business to come before the Board? **With no other business and having completed the items on the agenda, we stand adjourned.** Thank you very much.

(Whereupon the meeting adjourned at 11:15 p.m. on January 31, 2017.)



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Tautog Technical Committee / Stock Assessment Subcommittee Meeting Summary February 7, 2017

Technical Committee / Stock-Assessment Subcommittee: Jason McNamee, Jeff Brust, Bob Glenn, Sandy Dumais, Katie May Laumann, Alexei Sharov, Lindy Barry, Craig Weedon, Scott Newlin

University of Connecticut: Jacob Kasper

Staff: Ashton Harp, Katie Drew

At the Winter Meeting, state-specific harvest reduction analyses were presented to the Tautog Board. The Board voiced interest in an alternative harvest reduction analysis, whereby states within a region would have consistent management measures. The Technical Committee (TC) was subsequently tasked with evaluating consistent management options within the regions of Long Island Sound (LIS), New Jersey-New York Bight (NJ-NYB), Delaware-Maryland-Virginia (DelMarVa). The TC met via conference call to review the regional tasks assigned by the Tautog Board. The next progress call is scheduled for March 16th.

The TC tasks by region include:

- **DelMarVa:** TC to evaluate consistent possession limits and spawning periods with a 16" minimum size limit
- **NJ-NYB:** TC to evaluate consistent possession limits and spawning periods with a 15" and 16" minimum size limit and a 'pure' slot limit for the recreational and commercial fishery
- **LIS:** TC to evaluate consistent possession limits and spawning periods with a 15" and 16" minimum size limit and a 'pure' slot limit for the recreational and commercial fishery
- **All 3 regions:** Research peak spawning time periods in LIS, NJ-NYB and DelMarVa

In-Person TC Meeting

The TC would like to meet in-person to review the regional analyses. The meeting will be on March 29-30th in Arlington, Virginia.

1. Meet on March 29 and 30th at ASMFC (Arlington, VA)
 - a. Finalize the TC reports on April 14th for Briefing Materials

Draft Amendment 1 will be presented at the May Board meeting. Aspects of the regional analyses will be included in Draft Amendment 1, therefore there is a preference for an earlier meeting date.

DelMarVa

- Scott, Alexei and Katie May will correspond via phone or email to ground truth proposed options.
- On the first call the group will discuss recreational options. The priority is a consistent minimum size (16") and consistent spawning closures across the region. The group will evaluate options, respective to the priority management measures, which could include:
 - Option 1: 16" minimum size, shorter closed season and lower possession limits
 - Option 2: 16 " minimum size, increased closed seasons and higher possession limits
 - *Questions to consider when developing the parameters of the options:*
Are there studies to indicate peak spawning timeframes? Where do the closed seasons currently overlap across states? Are there certain timeframes that states have to be open or closed? What is the lowest/highest possession limit to consider?

New Jersey-New York Bight and Long Island Sound

- The Board tasks are the same for each region, therefore the two regions will continue to correspond while completing the separate analyses. Where possible, the analysts will try to complement management options across the two regions. For example, consistent minimum size and possession limits and to some degree consistent seasons, although the LIS would likely have a longer closed season (than NJ-NYB) due to the need for a larger reduction.
- Jacob has expressed interest in completing both LIS tasks. He has started the slot limit analysis for LIS and is willing to evaluate consistent management measures across the region. The TC discussed the applicability of a slot limit to all regions. Jacob noted that the R code he is developing could be retrofitted for use in other regions. The code is not yet complete but the input into the code is a length distribution of catch compiled from fisheries dependent surveys (e.g., MRIP harvest, Type 9, as well as CT VAS and NY Headboat surveys) as well as harvest/release information from MRIP.

Massachusetts-Rhode Island

The MARI analysts intend to provide additional management options for consideration. These will be provided to the TC prior to the in-person meeting. This will include slot limit options if time allows.

Spawning Analysis

MARI has implemented spawning closures, these were guided by ichthyoplankton studies conducted in Narragansett Bay. Researchers pinpointed when eggs were showing up in high abundance to set the bounds of the spawning closures.

DelMarVa, NJ-NYB and LIS will evaluate the appropriate time period for spawning closures using available data or through a meta-analysis.

Assumptions when liberalizing management measures

Similar to the process to restrict harvest, there should be some common assumptions to apply when liberalizing measures. Liberalizations are more difficult to calculate because the analyst is often working with a lack of data. However, some techniques that may be applied include:

1. Seasons: to open a closed season, one may look back to find the last time the season was open and apply those harvest rates to the newly opened season. The TC will have to determine how far back is appropriate to use for contemporary fishing rates. Additionally, if a portion of a wave is open, the rate for the open portion of the wave may be applied to the closed portion of the wave.
2. Bag limit: increasing bag limits can be based on data that includes discards, bag limit catch rates from previous periods when the bag limit may have been higher may be used (as stated for seasons, how far back one can go will have to be discussed), or calculations can be made by using data from alternative sources such as volunteer angler surveys. If a good source of data does not exist, a Bayesian approach will be reviewed by the technical committee for potential use.
3. Size limit: similar approaches as those described above can be used such as MRIP information including discard information, volunteer angler information, and in this case, fishery independent information can be used to supplement if it exists and is needed (i.e. size distribution from a trawl survey dataset).

Standardized Methodology

The TC had previously discussed the value of a standardized approach to calculate recreational reductions. The new task of consistent management measures across a region will make it more difficult to standardize methodology in all cases. Jay will test his R code versus Jeff's R code and report on the comparison.

After the call, Katie shared the R functions for a simulation model Gary Nelson (MA DMF) created to examine the impact of different size and bag limits on removals/harvest levels. It is a two sex length platoon-based model. It is currently parameterized for striped bass, but it could be parameterized for any species.

Tautog Harvest Reduction Regional Analysis for the Long Island Sound Region

Executive Summary

This update provides specific management measures that meet the proposed Tautog harvest reductions in the Long Island Sound (LIS) region (Connecticut and New York north shore of Long Island). Options are given for both commercial and recreational fisheries in each state and regionally. Under the recent proposal, LIS harvest should be reduced by either 47.2 or 52.6% to achieve biological reference points in 2021. Management measures to achieve the required reduction would be based on the methods presented for recreational and commercial fisheries.

Reference Points

Two biological reference points for LIS are currently under discussion. Two reductions in landings provide a 50% and 70% probability of reaching the target value of F under MSY in three years (Table 1).

Table 1. Projections associated with the LIS MSY reference points

| MSY Reference Points | | | | |
|------------------------------------|---|--|---------------------------------|-------------------|
| 2018-2020 Landings Scenario | Probability of being at or below F target in 3 years | Probability of being at or above SSB threshold in 3 years | Target Percent reduction | Year at RP |
| Status quo (500 mt) | 1.7% | 0.6% | NA | 2149 |
| 264 mt | 50.0% | 34.0% | 47.2% | 2021 |
| 237 mt | 70.0% | 40.0% | 52.6% | 2021 |

Assumptions and biases

There is a discrepancy between the total commercial harvest by wave and the total annual landings used in the stock assessment. The reason for this is that some of the landings data reported by the dealers (NMFS data) are missing the Vessel Trip Report. This discrepancy accounts for about 15% of the commercial landings.

All calculations rely on MRIP and NMFS data. MRIP harvest data is only available on a per wave basis (NMFS per month), so the calculations assume consistent harvest across the open wave (or month). This might be problematic, particularly in waves 5 and 6 where storms and cold weather are more likely to keep recreational anglers off the water as the season progresses. All calculations also assume no change in angler behavior as a result of regulatory change. While seasonal closures are likely to result in harvest reduction, the extent to which the predicted reductions match realized reductions has yet to be seen.

Recreational

Recreational options were developed by adjusting season, size and possession limit regulations using MRIP data from 2013 to 2015. MRIP measured and imputed lengths were used for this analysis. CT Volunteer Angler Survey (> 16") and NY Headboat Survey (> 16") lengths were included in the pool of MRIP lengths to assign lengths to the unmeasured MRIP fish. Illegal harvests (out of season and over bag limit) were ignored. Alterations in size and possession limits were investigated using R in a script built by Jeffery Brust at NJ DEP. Alterations in season length were evaluated by converting percent of annual harvest by wave to percent of annual harvest by day in each wave. Data are scant for the CT spring

fishery (Waves 2 and 4) because harvest for this period is minimal. We did not project harvest reductions that would be realized from changes in season length for Wave 2, and projected only harvest reductions realized for changes in bag limit and minimum size at current season length for Wave 4. Below are some possible alternative management measures based on the analytical method. Spawning closures in May, June and July are incorporated in all scenarios.

Option 1: Under status quo management strategy (managing CT and NY as separate units), five harvest scenarios were developed that meet the target harvest reduction (Table 2)

Table 2. Status quo management harvest reduction scenarios

| CT options |
|--|
| Apr. 1-30, Aug. 1-31, Oct. 10-Dec. 6: 1 fish at 16" (53.0%) |
| Apr. 1-30, Aug. 1-31, Oct. 10-Dec. 6: 2 fish at 17" (46.6%) |
| Apr. 1-30, Aug. 1-31, Oct. 5-Nov. 30: 1 fish at 16.5" (52.5%) |
| Apr. 1-30, Aug. 1-31: 1 fish at 17" & Oct 10-Nov 30: 2 fish at 17" (48.1%) |
| NY options |
| Oct. 5-Dec. 14: 1 fish at 16" (49.5%) or 1 fish at 16.5" (53.1%) |
| Oct. 5-31: 2 fish at 16" (53.2%) |
| Oct. 5-31: 3 fish at 16.5" (49.6%) |
| Oct. 1-Nov. 30: 1 fish at 16" (51.7%) |
| Oct. 15-Oct. 31: 2 fish at 16.5" & Nov 1-Nov 30: 4 fish at 16.5" (47.9%) |

Recreational Regional Management Measures

Options were developed to achieve harvest reductions under LIS regional scenarios. To achieve this, state specific (CT or NY Long Island North) harvest reductions were combined by a weighted means approach using the mean number of fish harvested in each region.

Option 2: This option is for regional management measures with consistent minimum size (16") and bag limit (1 fish) but allowing different seasonal closures (Table 3).

Table 3. Regional management harvest reduction scenarios. Blue indicates NY regulations and green indicates CT regulations.

| |
|--|
| LIS Option, 1 fish at 16" (53%) |
| NY: Oct. 5-Dec. 14 |
| CT: Apr. 1-30, Oct. 10-Dec. 6 |
| LIS Option, 1 fish at 16" (47%) |
| NY: Oct. 1-Dec. 14 |
| CT: Apr. 1-30, Oct. 6-Dec. 6 |

Option 3: This option is for regional management measures with a consistent minimum size (>16”), various bag limits, and allows different seasonal closures (Table 4).

Table 4. Regional management harvest reduction scenarios. Blue indicates NY regulations and green indicates CT regulations.

| |
|--|
| LIS Option, 2 fish at 17” (48.9%) |
| NY: Oct. 10-Nov. 30 CT: Apr. 1-30, Aug. 1-31, Oct. 10-Nov. 30, |
| 17” minimum size (52.8%) |
| NY: Oct. 10-31: 3 fish , Nov. 1-Dec. 11: 1 fish CT: Apr. 1-30, Oct. 15-31: 3 fish , Nov. 1-Dec. 3: 1 fish |

Option 4: This option is for regional management measures with a consistent minimum size, bag limits, and seasonal closures (Table 5).

Table 5. Regional management harvest reduction scenarios. Blue indicates NY regulations and green indicates CT regulations.

| |
|--|
| LIS 1 fish |
| Oct. 1-Nov. 30: 1 fish at 16.5” (47.6%) |
| Oct. 1-Nov. 9: 1 fish at 16” (47.1%) |
| Oct. 1-Nov. 9: 1 fish at 16.5” (52.5%) |

Slot limit options

Harvest slot scenarios were calculated for Long Island Sound for recreational and commercial fisheries, combined. These calculations were based on the same catch and harvest length distributions used in the Long Island Sound stock assessment update (ASMFC, 2016) for the years 2013-2015. Catch and harvest lengths were scaled by the mean number of fish caught and harvested in LIS in the given years. The proportion of catch in a size class (P_L) was calculated (catch in length/total catch). As the proportion harvested in legal size classes was nearly 1, the proportion harvested was set to 1 for all subsequent calculations. Given that, the yield (Y_L) in a size class was calculated:

$$Y_L = C \times P_L$$

The sum of Y_L for all the lengths of interest in a slot results in the yield (Y , number of fish harvested).

$$Y = \sum_{i=slot\ min}^{n=slot\ max} Y_i + Y_{i+1} + \dots + Y_n$$

The number of dead discards was estimated by the product of the discard mortality (2.5%) and the sum of all Y_L outside of the harvest slot and was included in the percent reduction. Y_L was also calculated based on the biomass by converting length to mean weight.

$$Y_L = C \times P_L \times W_L$$

Yield in biomass (Yb) was calculated as above.

All harvest reductions for slot limits include spawning season closures from May to July.

Harvest slots provide the opportunity to protect the large female spawners which produce exponentially more eggs (which are potentially of higher quality) than smaller females (LaPlante and Schultz, 2007). As Tautog have a relatively low discard mortality rate (2.5%) harvest slots provide an opportunity for implementing harvest reductions without increasing the minimum size.

Option 5: There are no viable harvest reduction options for slot limit for recreation and commercial fishery, with a size range of 14" - X" using status quo bag and seasonal closures. This is largely because of a high proportion of fish under 16" in the current size structure of the population. Reducing bag size and additional seasonal closures would be required to achieve these harvest reductions with such a slot limit.

Option 6: This option is for slot limits for both recreational and commercial fishery. A harvest slot between 16" and 18" is possible with no reductions in bag size. This option includes a spawning closure in July for the CT recreational and commercial fisheries, and closing the New York commercial fishery for May, June and July. It would have no significant impact on these harvest reductions if bonus fish (recreational sector) within one inch of the state record (34" for CT and 32" for NY) were allowed. Reductions are shown in number of individuals and biomass (Table 6).

Table 6. Regional management harvest reduction scenarios with harvest slot limits for commercial and recreational fisheries. Blue indicates NY regulations and green indicates CT regulations. (Bonus harvest of state record fish are allowed in this scenario from the recreational sector).

| Harvest Slot 16"-18" harvest slot , status quo bag (51.3%) |
|---|
| NY Commercial: Jan. 1-Feb 28, Apr. 8-30, Aug. 1-Dec. 31 |
| NY Recreational: Oct. 5-Dec. 14 |
| CT Commercial: Apr. 1-30, Aug. 1-31, Oct. 8-Dec. 24 |
| CT Recreational: Apr. 1-30, Aug. 1-31, Oct. 10-Dec 6 |

Commercial

Commercial options were developed based on seasonal closures. Connecticut's current commercial fishery has three open seasons and New York's commercial fishery has two open seasons. Total reported harvest from trip level reporting in 2013-2015 was calculated for each open season and converted to percent of total annual harvest. This was divided by the number of days in the season to provide an average daily percent of total annual harvest. It was then possible to look at seasonal closures that would reduce cumulative harvest by the required amount. All scenarios presented include spawning closures in May, June and July (NY) and July for CT.

Option 1: Status quo management options with seasonal spawning closures. Given that NY is open to Tautog fishing for most of the year (March 1 – April 7 is the only closure) there are limited options for opening new seasons once the spawning closure is in effect. By closing April 8 – July 31, a 52.6% reduction is realized (Table 7).

Table 7. Status quo management harvest reduction scenarios the NY and CT commercial fisheries.

| |
|---|
| NY options include: |
| Jan. 1-Feb. 28, Aug. 1-Dec. 31: 15" min (52.6%) |
| Jan. 1-Feb. 28, Apr. 1-30, Aug. 1-Dec. 31: 15" min (51.2%) |
| CT options include: |
| Apr. 1-30, Aug. 1-31, Oct. 5-Dec 24: 16" min (52.8%) |
| Apr. 1-30, Aug. 1-31, Oct. 1-Dec 24: 16" min (48.1%) |

By liberating seven days in April the estimated harvest reduction is reduced (Table 7). This is the smallest harvest reduction available for NY LIS with proposed spawning closures.

For the Connecticut commercial fishery, two management options are presented under status quo management which include spawning season closures. A higher harvest reduction (Table 7) and a lower harvest reduction (Table 7) are presented. Both options include liberating some days in October.

Option 2: This option presents consistent minimum size (16") for all commercial harvest in LIS. NY LIS commercial harvest with a minimum size of 16" and spawning season closures results in a 60.6% harvest reduction (Table 8). Seven days are liberated in April to reduce the harvest reductions. For CT options, please see above (Tables 7).

Table 8. Harvest reduction scenarios the NY commercial fishery with a minimum size of 16" and spawning season closures.

| |
|---|
| NY options: |
| Jan. 1-Feb. 28, Apr. 1-30, Aug. 1-Dec. 31: 16" min (60.6%) |

Option 3: This option provides harvest quotas for LIS. It is broken down by state and regionally (Table 9).

Table 9. Harvest quotas for NY LIS, CT and the LIS region.

| |
|-----------------------------|
| 47.2% reductions |
| CT 2489 lbs NY 34883 lbs |
| 52.6% reduction |
| CT 2774 lbs NY 38873 lbs |

Literature Cited

ASMFC (2016) 2016 Tautog Stock Assessment Update
http://www.asmfc.org/uploads/file/589e1d3f2016TautogAssessmentUpdate_Oct2016.pdf

LaPlante L.H., Schultz E.T (2007) Annual Fecundity of Tautog in Long Island Sound: Size Effects and Long-Term Changes in a Harvested Population. Transactions of the American Fisheries Society 136:1520–1533.

Tautog Regional Analysis for the DelMarVa Region

Executive Summary

DelMarVa does not have to take a harvest reduction, however consistent recreational management measures for the region are desirable. No action is expected with respect to commercial fishery due to its relatively small contribution to the total harvest.

Recreational Management Options

- Option 1. Status Quo (current measures because a reduction is not required)
- Option 2.
 - Consistent bag (4 fish) and seasonal closure (May/June)
 - Status quo minimum size (DE at 15" and MD/VA at 16")
 - *Consistent bag of 4 fish will require DE to increase bag limit from 3 to 4 fish in April and reduce from 5 to 4 fish in January – March and July – December. Maryland will have to increase bag limit from 2 to 4 fish in July – October. Virginia will increase its bag limit from 3 to 4 fish for the entire season. All states will be closed in May-June (wave 3) for spawning protection.*
 - *Estimated combined effect of season and bag changes for the region is 8.5 % increase in the harvest.*
- Option 3.
 - Consistent minimum size (16") and seasonal closures (May/June)
 - This option will require DE to raise minimum size from 15" to 16". MD and VA are already at 16 inches minimum size. Status quo bag limit – no adjustment.
 - All states will have spawning closures in May – June.
 - *Estimated combined effect of season and bag changes for the region is 11.9 % reduction in the harvest.*
- Option 4.
 - Consistent regulations for all states (16"; 4 fish; May/June seasonal closures)
 - *Consistent bag of 4 fish will require DE to increase bag limit from 3 to 4 fish in April and reduce from 5 to 4 fish in January – March and July – December. Maryland will have to increase bag limit from 2 to 4 fish in July – October. Virginia will increase its bag limit from 3 to 4 fish for the entire season.*
 - *All states will be closed in May-June (wave 3) for spawning protection.*
 - This option will require DE to raise minimum size from 15" to 16". MD and VA are already at 16 inches minimum size.
 - *Estimated combined effect of season and bag changes for the region is 11.6 % reduction in the harvest.*

Note: The DelMarVa regional options will be included in Draft Amendment 1 using a different format and numbering scheme.



Atlantic States Marine Fisheries Commission

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MEMORANDUM

March 28, 2017

To: Tautog Management Board
From: Law Enforcement Committee
RE: Different Management Measures within one state

The Law Enforcement Committee (LEC) of the Atlantic States Marine Fisheries Commission (ASMFC) was asked for comments on a possible splitting of regulations in New York during a teleconference meeting on March 17, 2017.

The following were in attendance:

LEC: Capt. Steve Anthony (NC); Dep. Chief Kurt Blanchard (RI); Capt. Grant Burton (FL); Maj. Rene Cloutier (ME); Lt. Mike Eastman (NH); Lt. Col. Larry Furlong (PA); Lt. Tom Gadomski (NY); Capt. Jamie Green (VA); Maj. Rob Kersey (MD); Capt. Bob Lynn (GA); Capt. Doug Messeck (DE); Katie Moore (USCG); Asst. SAC Jeff Ray (NOAA OLE); Capt. Jason Snellbaker (NJ)
STAFF: Ashton Harp; Megan Ware; Mark Robson

LEC members were briefed on the possibility of two sets of management measures for tautog in the state of New York. A split would provide for different management measures between Long Island Sound and the south (ocean) shore of Long Island. The LEC discussed a number of concerns and difficulties in enforcing such a management split.

Defining a boundary line between areas

A proposed boundary line between the sound and the ocean would be hard to determine on the water as there are no clear buoys to reference. This would make enforcement difficult, especially if land reference points are used to define the boundary line. A boundary line over the water without clearly visible landmarks or demarcations is almost completely unenforceable. At the very least, making strong cases for violations of such a line presents numerous enforcement challenges such as verifying position data of the patrol vessel and the fishing vessel in question, and determining a vessel operator's intent to violate the boundary vs. an accident of navigation.

Enforcing different regulations in close proximity

LEC members with knowledge of the waters in question or similar situations elsewhere expressed strong sentiment that fishermen shift their fishing activity back and forth between the sound and the ocean side depending on where regulations were more liberal. It is believed that many fishermen in the eastern end of Long Island Sound are already landing their catch on the south shore, via Orient Point.

If there are different regulations in close proximity, and a pattern of fishermen easily moving between areas, effective enforcement once fish reach the dock will be limited to the most liberal regulation. Strict-possession enforcement would not be feasible.

Similarly, if there are different closed seasons in close proximity the LEC believes it is highly likely that tautog fishermen will shift effort significantly. This belief is based on field observations that fishermen are already doing this to a degree. Several LEC members reported that fishermen from other states move their fishing activity to take advantage of more liberal limits or open seasons.

Establishing a Buffer Zone

When presented with information about a possible buffer zone along a boundary line separating Long Island Sound from the ocean, LEC members questioned the value of such a zone as a “safe zone” from enforcement actions. A primary consideration was that such a zone would simply add to the confusion for fishermen and enforcement officers on the water as to where the boundary line is, where the buffer zone lines are, whether all other species regulations would still apply to the exclusion of tautog regulations, and whether egregious violations of a particular state’s tautog regulations inside the buffer zone by a vessel from that state would be enforceable. It was also pointed out that since many fishermen in the eastern end of the sound currently come around Orient Point and land fish on the south shore, a buffer zone would not provide a significant benefit.

Consistency of Management Measures

The LEC felt strongly that tautog measures should be consistent among and within states. Even though this is primarily a recreational fishery, there clearly is a strong commercial aspect that requires careful monitoring and enforcement of landing points and markets. The more variation that occurs in regulations, the less likely there can be effective enforcement of minimum sizes, bag limits or possession once fish reach shore. The LEC particularly stresses the importance of a uniform minimum size limit.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Marine Resources

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April 12, 2017

Capt. Adam Nowalsky
Chair, Tautog Management Board
Atlantic States Marine Fisheries Commission
1050 N. Highland Street, Suite 200 A-N
Arlington, VA 22201

Dear Captain Nowalsky,

I am writing to provide the Board with some comment as we move forward with Draft Tautog Amendment 1.

New York firmly supports ASMFC and the Fisheries Management Plan process. We strive to be cooperative and a good partner in fishery management. We recognize and accept that the Tautog Board voted to move forward with a 4-region approach for tautog management without our support. Recently, we were contacted by the Plan Development Team about "where to draw the line" in New York that would separate the Long Island Sound measures from the New York Bight measures. We feel compelled to remind the Board that we have objected at previous meetings about adopting two different sets of rules for the State of New York. We attempted that approach in the past with winter flounder and were forced to abandon our efforts after only one year due to significant problems. We had difficulty with enforcement, the public was confused, and we saw a shift in effort from the Long Island Sound to other areas of the state, defeating the purpose of the rule. We envision a similar outcome with tautog if we use that approach. Additionally, I understand the ASMFC Law Enforcement Committee has recently expressed significant concerns on enforcing separate tautog measures within New York especially on the east end of Long Island.

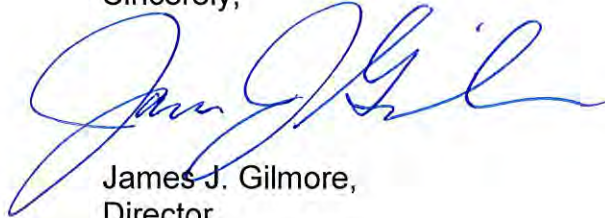
Our previous bad experience aside, it appears problematic to be using Marine Recreational Information Program (MRIP) data to calculate regional recreational management measures for tautog for a number of reasons. The most troubling is the use of partial state data in order to calculate measure for both the LI Sound Region and the NY-NJ Bight Region. The Commission continues to struggle with the recreational management of summer flounder and black sea bass using MRIP data. These two species are relatively well sampled in NY, averaging 1,156 and 734 intercepts with landings per year respectively, over the last 3 years. By comparison, tautog only generates an average of 144 intercepts with landings per year over the last 3 years for the entire state. We know we have issues with the recreational estimates for tautog within New York (repeatedly see-sawing from under 100,000 fish to triple that number under consistent measures) and they are likely present in other individual states. Using

partial state data appears to be an even more questionable use of the data. We would have no confidence in any measure calculated using these data.

We are asking that the Board focus the amendment on the development of new approaches identified in the work group, specifically spawning closures for both recreational and commercial fisheries and consistent size and possession limits in the recreational fishery. We are particularly interested in the concept of slot limits, though these would have to be developed under a completely new management philosophy, one that does not rely on the recreational data to calculate the measures.

Our overarching concern is that the goals of Amendment 1 will not be realized without our compliance with the splitting of New York. This should be of paramount concern for the Board. Our hope is that the Board would reconsider its decision and not force New York into a situation we find problematic and simply will not work.

Sincerely,

A handwritten signature in blue ink, appearing to read "James J. Gilmore". The signature is fluid and cursive, with a large initial "J" and "G".

James J. Gilmore,
Director

cc Toni Kerns
Ashton Harp

Atlantic States Marine Fisheries Commission

Atlantic Striped Bass Management Board

May 9, 2017
1:00 – 3:15 p.m.
Alexandria, Virginia

Agenda

The times listed are approximate; the order in which these items will be taken is subject to change; other items may be added as necessary.

- | | |
|--|-----------|
| 1. Welcome/Call to Order (<i>J. Gilmore</i>) | 1:00 p.m. |
| 2. Board Consent | 1:00 p.m. |
| • Approval of Agenda | |
| • Approval of Proceedings from February 2017 | |
| 3. Public Comment | 1:05 p.m. |
| 4. Consider Draft Addendum V for Public Comment (<i>M. Appelman</i>) Action | 1:15 p.m. |
| • Technical Committee Report (<i>N. Lengyel</i>) | |
| 5. Review and Consider Approval of 2018 Atlantic Striped Bass Benchmark Stock Assessment Terms of Reference (<i>K. Drew</i>) Action | 2:45 p.m. |
| 6. Board Guidance to Stock Assessment Subcommittee Regarding Development of Biological Reference Points for the 2018 Benchmark Stock Assessment (<i>K. Drew</i>) | 3:00 p.m. |
| 7. Other Business/Adjourn | 3:15 p.m. |

The meeting will be held at the Westin Alexandria; 400 Courthouse Square, Alexandria, Virginia 22314; 703.253.8600

Vision: Sustainably Managing Atlantic Coastal Fisheries

MEETING OVERVIEW

Atlantic Striped Bass Management Board Meeting
May 9, 2017
1:00 – 3:15 p.m.
Alexandria, Virginia

| | | |
|---|---|---|
| Chair: Jim Gilmore (NY) Assumed Chairmanship: 02/16 | Technical Committee Chair: Nicole Lengyel (RI) | Law Enforcement Committee Rep: Kurt Blanchard (RI) |
| Vice Chair: Russ Allan (NJ) | Advisory Panel Chair: Louis Bassano (NJ) | Previous Board Meeting: February 2, 2017 |
| Voting Members: ME, NH, MA, RI, CT, NY, NJ, PA, DE, MD, DC, PRFC, VA, NC, NMFS, USFWS (16 votes) | | |

2. Board Consent

- Approval of Agenda
- Approval of Proceedings from February 2017

3. Public Comment – At the beginning of the meeting, public comment will be taken on items not on the agenda. Individuals that wish to speak at this time must sign-in at the beginning of the meeting. For agenda items that have already gone out for public hearing and/or have had a public comment period that has closed, the Board Chair may determine that additional public comment will not provide additional information. In this circumstance, the Chair will not allow additional public comment on an issue. For agenda items that the public has not had a chance to provide input, the Board Chair may allow limited opportunity for comment. The Board Chair has the discretion to limit the number of speakers and/or the length of each comment.

| |
|---|
| 4. Consider Draft Addendum V for Public Comment (1:15 p.m. – 2:45 p.m.) Action |
| Background <ul style="list-style-type: none">• The Board initiated development of Addendum V in response to concerns raised by Chesapeake Bay jurisdictions regarding continued economic hardship endured by its stakeholders following implementation of Addendum IV and information from the 2016 stock assessment update indicating fishing mortality is below the target.• The intent of the addendum is to consider a relaxation of the coastwide commercial and recreational regulations to bring fishing mortality to the FMP target based on the 2016 assessment update.• Draft Addendum V is in Supplemental Materials• The Technical Committee prepared a report on the Plan Development Team’s proposed alternative management options (Supplemental Materials). |
| Presentations <ul style="list-style-type: none">• Overview of Draft Addendum V by M. Appelman• Technical Committee Report by N. Lengyel |
| Board Actions for Consideration <ul style="list-style-type: none">• Approve Draft Addendum V for Public Comment |

5. Review and Consider 2018 Atlantic Striped Bass Benchmark Stock Assessment Terms of Reference (2:45 p.m. – 3:00 p.m.) Action

Background

- The Technical Committee drafted terms of reference for the upcoming benchmark stock assessment for review by the Atlantic Striped Bass Board (**Briefing Materials**).
- The Technical Committee will also review the benchmark assessment timeline.

Presentations

- Review stock assessment terms of reference by K. Drew

Board Actions for Consideration

- Approve stock assessment terms of reference

6. Board Guidance to Stock Assessment Subcommittee Regarding Development of Biological Reference Points (BRPs) for the 2018 Benchmark Stock Assessment (3:00 p.m. – 3:15 p.m.)

Background

- The purpose of this agenda item is to notify the Board that its guidance will be required regarding the types of BRPs to pursue in the 2018 benchmark assessment.
- The SAS has prepared a short presentation which will also highlight next steps of the guidance process.

Presentations

- Board Guidance on Development of BRPs by K. Drew

7. Other Business/Adjourn

**DRAFT PROCEEDINGS OF THE
ATLANTIC STATES MARINE FISHERIES COMMISSION
ATLANTIC STRIPED BASS MANAGEMENT**

The Westin Alexandria
Alexandria, Virginia
February 2, 2017

These minutes are draft and subject to approval by the Atlantic Striped Bass Management Board.
The Board will review the minutes during its next meeting.

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 Proposals 3

Adjournment..... 15

INDEX OF MOTIONS

1. **Approval of agenda** by consent (Page 1).
2. **Approval of proceedings of October 2016** by consent (Page 1).
3. **Move to initiate an addendum to the Atlantic Striped Bass Fishery Management Plan that considers a relaxation of the coastwide commercial and recreational regulations to bring fishing mortality to the target based on the 2016 stock assessment update** (Page 6). Motion by Mike Luisi; second by Rob O'Reilly.
4. **Move to postpone until the May meeting** (Page 11). Motion by Steve Train; second by Ritchie White. Motion fails (Page 13).

Main Motion
5. **Move to initiate an addendum to the Atlantic Striped Bass Fishery Management Plan that considers a relaxation of the coastwide commercial and recreational regulations to bring fishing mortality to the target based on the 2016 stock assessment update.** Motion carried (Page 15).
6. **Move to adjourn** by consent (Page 15).

ATTENDANCE

Board Members

| | |
|--|---|
| Patrick Keliher, ME (AA) | Andrew Shiels, PA, proxy for J. Arway (AA) |
| Steve Train, ME (GA) | Loren Lustig, PA (GA) |
| G. Ritchie White, NH (GA) | John Clark, PA, proxy for D. Saveikis (AA) |
| Doug Grout, NH (AA) | Roy Miller, DE (GA) |
| Dennis Abbott, NH, proxy for Sen. Watters (LA) | Craig Pugh, DE, proxy for Rep. Carson (LA) |
| Sarah Ferrara, MA, proxy for Rep. Peake (LA) | Ed O'Brien, MD, proxy for Del. Stein (LA) |
| Mike Armstrong, MA, proxy for D. Pierce (AA) | Mike Luisi, MD, proxy for D. Blazer (AA) |
| David Borden, RI (GA) | Rachel Dean, MD (GA) |
| Mark Gibson, RI, proxy for J. Coit (AA) | Kyle Schick, VA, proxy for Sen. Stuart (LA) |
| Eric Reid, RI, proxy for Sen. Sosnowski (LA) | Rob O'Reilly, VA, proxy for John Bull (AA) |
| James Gilmore, NY (AA) | Michelle Duval, NC, proxy for B. Davis (AA) |
| Emerson Hasbrouck, NY (GA) | Doug Brady, NC (GA) |
| John McMurray, NY, proxy for Sen. Boyle (LA) | Martin Gary, PRFC |
| Russ Allen, NJ, proxy for D. Chanda (AA) | Derek Orner, NMFS |
| Adam Nowalsky, NJ, proxy for Asm. Andrzejczak (LA) | Wilson Laney, USFWS |

(AA = Administrative Appointee; GA = Governor Appointee; LA = Legislative Appointee)

Ex-Officio Members

Nicole Lengyel, Technical Committee Chair

Staff

| | |
|-------------|--------------|
| Robert Beal | Katie Drew |
| Toni Kerns | Max Appelman |

Guests

| | | |
|-----------------------------------|------------------------------|-------------------------|
| Frank Abner, MCBA | Joseph Gordon, PEW | Gregory Madjeski, MCBA |
| Mark Belton, MD DNR | Sam Gotsis, MCBA | Charles Marenka, MCBA |
| Robert Brown, Sr., MCBA | Ed Green, MCBA | Jason McNamee, RI DEM |
| Victoria Brown, MCBA | Zach Greenberg, PEW | Nichola Meserve, MA DMF |
| Frank Carver, MCBA | Jeffrey Grierson, Deale Capt | Bobby Rhodes, MCBA |
| Steve Chait, MCBA | Assn, MD | Dan Ryan, DC Fisheries |
| Doug Collison, MCBA | Brian Hardman, MCBA | Joseph Sadler, MCBA |
| Randy Dean, MCBA | Katie Hoffman, MD DNR | Mike Sadler, MCBA |
| Jeff Deem, VMRC | Tom Ireland, MCBA | Alexei Sharov, MD DNR |
| Christopher Diehl, MCBA | Ken Jeffries, MCBA | Chris Sullivan, MCBA |
| Tony DiLernia, MAFMC | Kathy Knowlton, GA DNR | Charles Sisson, MCBA |
| Jonathan French, Falls Church, VA | Aaron Kornbluth, PEW | Tawn Tipswood, MCBA |
| Matt Gates, CT DEEP | Robert Krausman, MCBA | Mike Toole, MCBA |
| Patrick Geer, GA DNR | Deb Lambert, NOAA | Joseph Tomaschko, MCBA |
| Tracy Geho, MCBA | Phil Langley, MCBA | Jack Travelstead, CCA |
| | Arnold Leo, E. Hampton, NY | Beth Versak, MD DNR |

The Atlantic Striped Bass Management Board of the Atlantic States Marine Fisheries Commission convened in the Edison Ballroom of the Westin Hotel, Alexandria, Virginia, February 2, 2017, and was called to order at 11:40 o'clock a.m. by Chairman James J. Gilmore, Jr.

CALL TO ORDER

CHAIRMAN JAMES J. GILMORE, JR.: Welcome everyone; this is the Atlantic Striped Bass Management Board. My name is Jim Gilmore; I'm the Administrative Commissioner for New York, and I will be Chairing the meeting today. We'll hopefully get a little quicker wrap up than we did this morning.

Welcome to all the fishermen from the Chesapeake region. I understand we've got quite a few guys in the room. Well, some of them want to make some public comments; which we'll get to in a minute.

APPROVAL OF AGENDA

CHAIRMAN GILMORE: Just in terms of the agenda, what we're planning on doing, if you look at it in your briefing materials.

We're just going to go through the Technical Committee Report, Options 5 and 6 we're not going to do today. We're going to as Bob had described before, try to do that through mail and phone. Essentially then we'll just have other business. With those changes to the agenda, are there any other changes before we adopt the agenda? Seeing none; we'll adopt that by consensus.

APPROVAL OF PROCEEDINGS

CHAIRMAN GILMORE: The next item on the agenda is the approval of the proceedings from October, 2016; which is in your briefing package. Has everyone seen those? Are there any comments or changes to those? Okay seeing none; we will adopt those by consent.

PUBLIC COMMENT

CHAIRMAN GILMORE: Before every meeting we have an opportunity for the public to come up to the public microphone and speak on topics not on the agenda.

There will be opportunity later if there are action items to talk about the specific motions; but right now for any topic not on the agenda. I've had two individuals signed up that would like to make a public comment. But if you have anyone else that would like to make a comment, please raise your hand after we're done. Please, just identify your name and your affiliation for the record when you come up. First I have Robert Brown.

MR. ROBERT T. BROWN SR.: Chair and members of the Atlantic States Marine Fisheries Commission, thank you for letting me talk today. Prior to 1985 Rock Fish Moratorium, we had a 12 inch minimum size, 15 pound maximum size, and we fished on the spawning ground during the spawning season.

There was no quotas, it was an open fishery 365 days a year, 24 hours a day seven days a week; commercial and recreational. We've come a long ways since then. Today no fishing on our spawning grounds during the spawning season, we even close our season prior to the spawning season to permit the spawning biomass to reach these grounds. We have quotas which restrict us to where many of us have gone out of business. We have a limited entry and increased the size limits of these fish.

Mortality rates, between an 18 and a 20 inch rockfish, the mortality rate during the warm water season far surpasses any savings in rockfish, and places a hardship on our charter fishery and recreational fishermen. It is time to go back to common sense fishery. No one wants to go back to 1985. Again, we have made a great return to the rockfish population.

There is no place for micromanagement, and fishery management is not a precise science. Let common sense fishery management prevail, again permitting an 18 inch minimum size and do

not shorten the season on the charter and recreational fishermen; as it is a hardship to them. The fishing charters recreational are not happy, not being able to catch their two legal fish per person and throwing so many back.

Always you hear, next year they'll be big enough. But the fish start their migrate to the ocean at that time. Remember, mortality rates and remember to do what is best for the fish and the fishermen, through a commonsense management fishery plan. Thank you.

CHAIRMAN GILMORE: Next I have Phil Langley.

MR. PHIL LANGLEY: My name is Phil Langley; I'm President of Maryland Charter Boat Association. I sit on the Potomac River Fisheries Commission and the Maryland Sportfish Advisory Commission. On behalf of myself and a group of charterboat captains here from Maryland; that if you don't mind I would like them to stand and be recognized at this point, if you don't mind.

I promise you these guys aren't here because they like meetings. Many of these guys who just stood experienced the five year moratorium from 1985 to 1990. I would like to thank you, Mr. Chair, and the Board for the opportunity to speak. Like you, we have a passion for protecting the resource.

We realize without the resource our professions would not be possible. Addendum IV was implemented in 2015 to protect the existing spawning stocks and to ensure healthy spawning stocks in the future. Prior to Addendum IV, most of the Chesapeake Bay summer harvest was on Ages 3, 4, and 5 fish.

At Age 5, a large number of these fish entered a coastal migration. The Bay summer resident fishery is heavily skewed towards a male fishery. Most of the females and the strong 2011 year class should have entered the coastal migration now. To comply with Addendum IV reductions the Bay states increased the minimum size and their summer fishery for recreational and charter anglers.

These adjustments protected most of Age 3 fish and left mostly Age 4 and some of Age 5 fish to target. We saw an abundance of fish, however most were sublegal. Most captains I've spoken with were experiencing catch ratios of 20 to 1 in two-thirds of the Bay. That is 20 throwbacks to every fish that they could keep. With an assumed 9 percent mortality rate, that is equivalent to 1.8 fish lost for each legal fish harvested. This takes place in water temperatures averaging 80 degrees in the Chesapeake Bay; approximately 12 to 15 degrees warmer than a majority of the northeast coast during the summer months. We feel 9 percent is a conservative number during that time of year.

A high number of discards has created discontent with many of our customers, to the extent that many captains have experienced a 20 percent reduction in trips between 2015 and 2016. This economic decline has also affected tackle shops, restaurants, marinas, convenience stores, hotels, et cetera that are indirectly dependent on the Bay's fishery.

Approximately 60 percent of Maryland's charter and recreational fisheries focus on striped bass as their primary targeted species. This is due in part to the lack of variety of species available to target in the Bay. This percentage is much higher as compared to the coast, which has a greater variety of species; providing alternative fishing options.

For this reason the economic impact is significantly different among our states, with Maryland experiencing significant burden. There are concerns that economic decline will increase in 2017, while conservation is our utmost priority and concern, we request that as options to maintain a sustainable fishery are contemplated, consideration be given to the economic health of the many small businesses that rely on the continuation of our fishery. Thank you, Mr. Chair.

CHAIRMAN GILMORE: Thank you, Mr. Langley. Are there any other public comments, before we move on to the next agenda item?

TECHNICAL COMMITTEE REPORT

CHAIRMAN GILMORE: Seeing none; we're going to move into the Review of the Technical Committee Report and the Technical Committee Chair Nichole Lengyel is going to give us a presentation. Nichole.

REVIEW OF PROJECTED FISHING MORTALITY AND RECOMMENDED DATA SETS FOR CONSERVATION EQUIVALENCY PROPOSALS

MS. NICHOLE LENGYEL: I'll try to get through this relatively quickly for the sake of time. I'm going to be presenting the Technical Committee report on the tasks assigned to the TC from the Striped Bass Management Board at the last meeting in October. I'll start by giving some background of what was presented to the Board at the October, 2016 meeting; go over the two tasks assigned by the Board.

For Task 1, I'll go through the methods, results and discussion and then for Task 2, present the TC recommendation. At the October 2016 Management Board meeting, the Board was presented with the 2016 striped bass stock assessment update. The update found that the stock is not overfished and overfishing is not occurring.

Spawning stock biomass was estimated at 129 million pounds, which is above the threshold and below the target. Fishing mortality was estimated at 0.16, which is below the threshold and below the target of 0.18. Task 1 assigned to the TC was determine the percent liberalization and harvest that would increase fishing mortality from the 2015 terminal year estimate of 0.16, to the FMP target F of 0.18.

Task 2 was to recommend a preferred dataset using updated length frequency data for states to use when preparing conservation equivalency proposals for recreational regulations. For Task 1, and again this was to look at how much we could liberalize harvest to get back up to the target from 0.16, which was the 2015 terminal year estimate to the target of 0.18. We projected the striped bass population starting in 2015 and going through 2017. There were two

scenarios presented in the memo to the Board. Scenario 1 used preliminary 2016 removals. A fishing mortality of 0.18 in 2017, and we estimated the total removals in 2017 under this scenario. For Scenario 2 we had a constant fishing mortality of 0.156 in 2015, and we used an F of 0.18 in both 2016 and 2017; and again we estimated total removals in 2016 and 2017.

For some results for Task 1, preliminary 2016 removals were estimated at 3.6 million fish. This is an 18 percent increase from 2015. Keep in mind these are just preliminary estimates; they could increase when they become final. Fishing at F equals 0.18. In 2017 results in a harvest of roughly 3.3 million fish and you can see that for Scenario 1 and 2 the numbers of fish are very close. It is roughly about 3.3 million.

Our results found that total removals of 3.3 million fish in 2017 would represent a 10 to 11 percent increase from 2015 removals; but it would also represent a 6 percent decrease from the preliminary 2016 removals. Again, 2016 removals are likely an underestimate. For Task 2 we were asked to recommend a preferred dataset for states to use when preparing conservation equivalency proposals for recreational regulations.

This primarily came about due to the emergence of the 2011 year class. The TC had originally prepared a memo in 2014 that went to the Board, and we recommended using 2011 to 2013 as the preferred dataset. The TC met and discussed this; and decided pursuing the development of a length-based projection model would be an ideal approach for length frequency data.

However, in the interim until that model can be developed, we recommend using the most three recent years of size frequency data for CE proposals. A state may opt to use less than three years if they can justify a reason for doing so. With that we'll take any questions.

CHAIRMAN GILMORE: Questions. John Clark.

MR. JOHN CLARK: Thank you for the report,

Nichole. Did the TC look at the length frequencies from the MRIP for the 2016? Is most of that increase in landings coming from fish recruiting to the fishery, because that seems like quite a big increase from 2015 to 2016 under the same regulations?

MS. LENGYEL: We did talk about this at the last meeting, and we did see a much higher proportion of Age 4 or 5 fish in the length frequency data and in the harvest, in both harvest and in discards.

CHAIRMAN GILMORE: Dr. Duval.

DR. MICHELLE DUVAL: Nichole, I was just curious if for the preliminary 2016 harvest estimates if the Technical Committee was able to break those out by bay harvest versus coastwide harvest.

MS. LENGYEL: It's not broken out by bay and coastwide, but I can tell you exactly what went into the preliminary harvest. For 2016, obviously we didn't have all the data available yet. We used for 2016 Waves 2 through 5, for 2015 we brought in Wave 6 estimates, because 2016 was not yet available. We also brought in Virginia Wave 1 estimates from 2015; and this is all for recreational data, harvest and discards, and discards reflect 9 percent discard mortality from released fish. On the commercial side we used 2016 preliminary number provided by the states; however we substituted for New York and Virginia with 2015 numbers, because 2016 was expected to be much higher than 2015. We also used the 2015 commercial discard estimates as 2016 was not yet available.

CHAIRMAN GILMORE: John McMurray.

MR. JOHN McMURRAY: I also noted that big increase in removals from 2015 to 2016, and it does make sense to me anecdotally, given what we saw along the coast with the aggregation of menhaden and the number of people taking advantage of that opportunity. But what I didn't really understand was how the projected removals for 2017 were lower than 2016. I believe they're even lower than 2015. How did

you come to that?

DR. KATIE DREW: The way we calculated sort of the task was to figure out if we were fishing at 0.18 in 2017, what kind of removals would that equivalent to? We basically projected the population forward from 2015; which was the end of the assessment, so you have your total numbers at age in that coming out of there.

Then you just project the population forward for three years under two different harvest scenarios. We need to know what happened in 2016 to get to 2017. In 2016 we had these preliminary numbers, and so you take those out of the population and then you push the population forward for another year.

Then you apply that 0.18F to the population in 2017. If you're fishing at 0.18 in 2017, given the population size that we project will exist in 2017, then that is the level of removals that you can take out to get to an F of 0.18. The reason that it's lower than 2016 is that if you actually look at the value for F that would get you to 0.18 in 2016; it's lower than those preliminary 2016 removals.

Basically, this is suggesting that if we did the update in 2016 with 2016 data, it would suggest that we were above the target in 2016. The harvest removals for 2017 that could take place under an F of 0.18 is slightly higher than what we saw in 2015; that is you could go up a little bit from your 2015 numbers. But it's still lower than the preliminary 2016 numbers, because we're anticipating that harvest has gone up that much in 2016. Does that make sense?

MR. McMURRAY: Yes I would like to say I understand that thoroughly, but I don't. We could talk offline about that. But one of the things I did hear you say was, so F increased to above the target in 2016. That is the projection, right? We're forecasting we'll be above target again in 2017. Is that correct?

DR. DREW: We are forecasting that if you took the same level of removals out that you took in 2016; you would most likely be above the target

in 2017. We did not do any projections to project forward at the 2015 levels, which is slightly below the target; at least on paper. If you stayed at 2015 or below, you would most likely be at or below the target. But the 2016 values would put you over.

MR. McMURRAY: Okay, I think I understand that. I would just add that there is no reason to believe that we wouldn't have the same sort of fishing conditions in 2017. I don't know why it would be lower, why removals would be lower at all; and why fishing mortality would be lower, but that's just me speaking anecdotally.

CHAIRMAN GILMORE: Any other questions? Mike Luisi.

MR. MIKE LUISI: Hi Jim, and thank you for asking for questions. The difference between 2015 and 2016 is obviously something that the Board members are looking at and are asking questions about. But given the comments regarding 2016 as a projection, it was stated that these are preliminary estimates, and it was also mentioned briefly through another set of questions that we're not quite sure yet what's going to happen in 2016.

I would like to get the Technical Committee's position on which is a more reliable estimate of fishing mortality, is it the 2015 estimate; which from what I understand to be a much more complete and thorough analysis to estimate that F, or is it the projected landings that we just don't know and they're not final yet?

MS. LENGYEL: As you said, the 2015 estimates came out of that update assessment. For 2016 we are using preliminary numbers. We do expect those numbers are likely an underestimate of what total removals in 2016 will be. The Technical Committee did not necessarily discuss what the likelihood of being at or above the target would be in 2016.

We wouldn't know that for sure without doing another update assessment, so we can't necessarily say for certain which we have more confidence in; because we don't actually know

where we'll be at in 2016 in terms of fishing mortality, until we have those final numbers.

CHAIRMAN GILMORE: Follow up, Mike.

MR. LUISI: Just to follow up on an assessment update. It's not in the plans to do an assessment update, and from what I understand, Mr. Chairman, the next opportunity to evaluate the stock will be through the benchmark assessment that I'm being told is probably going to be the report for that assessment.

It will likely be towards the end of 2018; which will then extend any management change related to striped bass probably into 2019 or 2020. I just want to make sure it's clear that there is no plan right now to do a 2016 or 2017 assessment, which will give us more certain values for the 2016 F as it relates to coastwide harvest.

CHAIRMAN GILMORE: That's my understanding, Mike, that's correct. Andy Shiels.

MR. ANDY SHIELS: Just a quick question. When do we think we would have the 2016 estimate or data?

MS. LENGYEL: Those numbers wouldn't come out until MRIP numbers are finalized, so approximately in May.

MR. ROB O'REILLY: I just wanted to follow up on the changes from 2015 to '16 and then the reduction '17. Where does the progression of the female striped bass leaving Chesapeake Bay figure into all of that? How is that treated?

DR. DREW: Because we're using a single model for the entire coast and the entire population, we don't have sex information; migration information is not incorporated into this analysis.

CHAIRMAN GILMORE: Okay I think we've gone through the questions, now if you recall the TC report was brought up at the last meeting for an investigation and information for a potential action. At this point in time is there any action

that we would like to take as a result of this?
Mike Luisi.

MR. LUISI: Let me first start off by saying that I want to thank the Board, all the members of the Board for their support over the last 18 months; as we explored a deeper understanding of the effects of Addendum IV, and the regulations that were imposed on the states through that addendum.

This Board was willing to go forward and approve an assessment update, which was conducted; and we just received a report on that on the results of that assessment update. I do appreciate that effort. I have a number of points that I would like to make, but before I get to that I do have an action that I would like the Board to consider today. I've passed that action on to Max. I can read that into the record if it is the appropriate time right now, Mr. Chairman.

CHAIRMAN GILMORE: Yes, go ahead, Mike. Why don't we do that and then we can get right to the heart of it.

The report today was that we could look at a 10 percent increase to that in harvest coastwide. The point there with the 2016 stock assessment is to end the discussion at the terminal year of 2015. If I get a second, I can offer other justification for this action.

CHAIRMAN GILMORE: Okay do we have a second to the motion? Rob O'Reilly. Okay Mike, do you want to go ahead and go into the detail?

MR. LUISI: Sure, thanks for the second, Rob. Again, we want to thank you for all of your support over these last couple years in listening to and considering actions that we were hoping would show an impact to our recreational and commercial industries in Maryland. I think it is very abundantly clear that there is a great deal of interest; given our stakeholders in the audience here today in the striped bass fishery.

All of you have also received a letter from Governor Larry Hogan and the state of Maryland, indicating his concerns over the actions that

have been taken; and the implications of those actions and the economic impacts of those actions to our state. We will continue to stand behind previous comments that we've made.

I think someone mentioned Groundhog Day earlier this morning, I'm not sure who it was, but we continue to want to make the point, and we stand behind previous comments that this stock is robust. This stock is not overfished and overfishing is not occurring. We believe the stock to be in a much better condition than what would come from the assessment and the spawning stock biomass; which through retrospective analysis indicates that we are underestimating the spawning stock biomass when moving forward. I look to the objectives of Addendum IV. A couple years ago we took action to achieve certain objectives.

One of those objectives was to protect the 2011 year class. The 2011 year class has now entered into what is exploitable in Maryland, yet the 2011 year class as many would know along the coast, many if not most of them are leaving the Chesapeake Bay and are becoming part of the migratory stock.

We believe that that objective in Addendum IV was met. While we've carried the burden of that objective, because as you know the Chesapeake Bay is responsible for the majority of striped bass along the coast, we felt we did our job achieving that objective. We think it is time to take a different action.

Now the other objective of Addendum IV was to reduce F to at or below the target. Based on the 2016 assessment that is where we are, F is below the target based on the 2016 assessment. In achieving both of the addendum's objectives, I think that it is time to consider an action that would allow for some flexibility to the states; and not every state would need to engage in that regulatory relaxation.

But it would be something that could be offered to the states between now and the benchmark assessment, which is years from now. I think it is unreasonable to expect the stakeholders to,

once objectives have been met in an addendum, to just hold the line for years until management actions are considered.

Now I'll say that economic impact is felt quite differently along the coast when management actions are taken; and individual states feel those impacts differently. The impacts to Maryland have been significant. There will be those that can argue that it is not the case, but I think that looking out at this crowd, reading the letter from Governor Hogan. The economic impacts have been significant.

One of the reasons for those impacts to the state of Maryland is the lack of variety of other fish to target. The charterboat industry has been built around striped bass fishing. We don't have the same opportunity, given the proximity of Maryland's portion of the Chesapeake Bay to the ocean. We don't have the variety to bring people in.

If you're not catching striped bass you can move on to another species, it is just not available for us. I think that is one of the reasons why this type of action that I'm suggesting here, we as well as other states that have the same type of lack of variety, we could take advantage of that. I'll be specific about how we could take advantage of that.

It was mentioned by Captain Langley earlier that in the summer/fall fishery in our state, water temperatures warm. There are many fish that caught and returned. We were looking at a two inch increase from previous regulations that we had for 20 years, and it often takes 20 to 30 to 40 and some might even say more fish before you can catch a harvestable fish. There is a lot of mortality that is associated with that. One of the advantages that I could see coming from the approval or through the work of this addendum, would be to liberalize our summer/fall fishery to a 19 inch fish; and turn a lot of that regulatory discard into harvest. That would be the intention of what we're looking at here. I'm not looking for going back to prior to the addendum, resetting the clock on quotas. We're just looking for some flexibility. We believe that it's time to

make that change. Given the impacts to the state of Maryland, I hope that the Board will continue to be supportive of these efforts; as you have for the last 18 months as we've explored all of this. I'll leave it at that Mr. Chairman, and I appreciate the consideration.

CHAIRMAN GILMORE: Let me get a show of hands. I'm assuming we're going to have a few comments on this; so I want to try to do pro-con on this. I've got Pat Keliher, con. Ed O'Brien, are you pro or con on this? Just hang on a second before you comment, pro. John Clark, okay, Marty, I can figure that one out. John McMurray, I can figure that one out. Jay? Okay. Anyone else; Rob O'Reilly, okay. Does anyone else want to comment, Michelle, and Rachel. I think I've got everybody. We can always add on. All right Pat, you get the floor first.

MR. PATRICK C. KELIHER: I'm troubled by the initiation of this motion. As I look at the agenda, after looking at the Technical Committee report, there is no motion of action. The state of Maryland obviously came here to initiate this action; considering the amount of charterboat fishermen that are here. The state of Maine and fishermen, and charterboat operators within the state of Maine were not aware of this discussion.

I think if they were, you would have had a lot of comments from them. I certainly would have had a lot of comments from them before I came here to this meeting. In looking at the Honorable Larry Hogan's letter, frankly I could have penned a very similar letter for my boss, Governor LePage, with just the opposite tone to remain status quo. As a former charterboat operator, full time charterboat operator in a past life, a long, long time ago.

I can tell you that the impact to the state of Maine charterboat fleet, the economic impact was great; for very similar reasons. We have supported for many years now a reduced mortality and reduced effort, to try to build our fishery back up to even a fraction of what it was, frankly, in the '90s and 2000s. We, like the state of Maryland, don't have a lot of options to find other species and target other species. Striped

bass inshore is basically it. For those reasons, Mr. Chairman, I'll be opposing this motion.

MR. ED O'BRIEN: Supplement the letter that Phil wrote, and certainly the governor's approach is from a socioeconomic situation. I assure you that in the Legislature we have similar feelings, and based upon today, if we're successful here, I think that can settle things in our state to a degree. As I look at the captains here today, I see the sons of their fathers going out of business when we went into moratorium; Captain Green, Captain Abner, Captain Sullivan, and others.

We took a real hit for five years while a lot of people kept fishing. We're up against the same kind of situation now with this 20 inch fish. We know these fish are leaving earlier than they were before. A 20 inch fish typically is out of here by the time we go for them now. A 19 inch fish would be helpful.

We deeply feel it should be still the 18 inch fish, but we're looking for a compromise. Down in Florida you all were patient in listening to me, and it is right back here again with the same kind of a conversation. We came in with an appeal when we first went to this 14 inch fish. Needless to say, it didn't pass. Down in Florida we really appreciated the Policy Committee willing to listen to us further on this subject, when it came to the 20 inch fish. I just hope that we'll keep some open minds. I know up north looks at things totally different than we do on the Bay; and they certainly have a right to. But we need some help here. Gentlemen, we need some help. We need this 19 inch fish, and that's a compromise.

CHAIRMAN GILMORE: Next I have John Clark.

MR. CLARK: I'll be brief. Delaware was opposed to these very conservative reference points. We appealed Addendum IV because of that. It has had similar socioeconomic impacts in our state. The F is now below the target, which once again is an extremely conservative target. Rather than wait yet another two or three years before we do any liberalizing, I think it is time to start giving back some of the quota that we took away from

both our recreational and commercial fishermen.

CHAIRMAN GILMORE: I can't read my own handwriting. I wrote it down so quickly. I had a couple other folks on this side of the table. I had Marty, Rob, Michelle and Rachel. Was there anybody else on that side of the table? All right let me go to Marty.

MR. MARTIN GARY: I would like to say up front, a lot of the charter captains that took the time to come here again, this is I think the third or fourth time I've seen them here in the last couple of years, also fish in Potomac River Fisheries Commission jurisdictional waters. I appreciate the effort that they made to send a message to you all that they really care; and hopefully the Board members do as well, I know they do.

I heard some of the speakers. Mike talked to some of the economic and technical aspects of what we're dealing with, Ed O'Brien the economic impacts to his industry. I heard Rob ask a question regarding the female migration out of the Bay, and lack of information. But I did want to say without rehashing a lot of that. There is some information that we do know.

Rugolo and Jones, colleagues that I both had an opportunity to work with when I was on the Striped Bass Stock Assessment Program at DNR in the late 1980s, conducted a migration study. There isn't anything else I'm aware of. It gives us some sense. You heard Ed talk about what they observe on the water.

The 2011 year class which we sought to protect is in its sixth year of life. The Rugolo and Jones data, to give you some estimation of what we're dealing with here, tells us that only 5.6 percent of the females are left in the Bay in their sixth year, and 16 percent of the males are left; that is a story you've heard many times from the Bay jurisdictional managers.

We primarily have a male fishery that we fish on. That gives you some numbers to work with, even though that study is a little bit older. The 2011 year class was the fourth biggest in the near 60

year history of the Maryland Juvenile Finfish Survey. By all accounts from everybody I've talked to, it is as advertised; it's that big.

As Mike said, I think we've protected that year class. That important year class is largely out of the Bay. I've heard some of the reports and read what John McMurray has put up. I enjoy his writing and John is starting to see some of that. Other people are seeing it, so it's happening. The '11 year class, as Mike said, has been protected. That begs the question, what's coming behind the '11 year class? Well, if you haven't looked the '12 year class was the lowest in the 60 year history of the Maryland Juvenile Finfish Survey; it was a 0.89. That is what they've got to look forward to as these fish move out, after that is the '13 year class, which is a 5.75, that is a pretty weak year class.

But we also know that these oscillations, based on environmental conditions, happen all through the time series. The good news is, in '14 we have a slightly above average year class, and I think personally it's probably a lot better than slightly above average; because three of the four systems that went into that survey were really good, and one tanked and dragged it down a little bit.

The '14s are probably pretty good and the '15s are the eighth biggest. That is a good year class. There is some relief on the horizon, but as Mike said, these guys may have some tough sledding; depending on how many of those '11s are still around. We're not overfishing and overfishing is not occurring. I mean this Board has an opportunity today to do something for these people that have reached out to you. I'll leave it at that and listen to what other folks have to say, and I appreciate that Mr. Chairman.

CHAIRMAN GILMORE: Next I have John McMurray.

MR. McMURRAY: A few things here. First, according to the TC analysis we could theoretically get away with a 10 percent increase in removals; if we base it on 2015. If we base it on 2016, if I'm understanding the briefing

material right, it is suggesting that we need to do a 6 percent reduction. Is that correct?

We should keep that in mind for one. As far as economic impacts and the condition of the stock itself, certainly up the coast people suffer economic impacts from a reduction in abundance, me personally, and so do my colleagues. While the stock is not overfished, we're actually just above threshold. We're not even close to target.

I wouldn't claim that the stock is doing incredibly well, and it is incredibly abundant; I still think it has a ways to go. I don't really understand how we're harping on the fact that 2015 was just below target. To me the SSB would seem to be the more important indicator, and what we should base any sort of management decision on.

I think the intent really was to wait until the 2018 benchmark, and not to really change the regulations after two years; based on what the TC has told us is a statistically irrelevant difference between 0.16 and 0.18. Marty brought up the young of the year indices. I would want to point out that the ten year average is considerably lower than the prior two decades. I also have a question about timing. We have to go through a full addendum process here, and it seems to me and maybe I have this wrong, like that would overlap the benchmark.

I mean we wouldn't expect to get this done in a couple of meetings, right? It would take a little while. I don't know why we would initiate an addendum when we're going to embark on a more thorough process to assess the stock, and have more information to make better management decisions. I have a few more things to say, but I think I'll cap it there. I don't support the motion, obviously.

MS. RACHEL DEAN: There is not much left to say that wasn't said already, so I would just say that the gentlemen that are here in the room today have been good stewards of this resource. They definitely feel like they have contributed their part, by not only protecting the 2011 year class,

but also the spawning striped bass.

With the conservative reference points that we have, the strong year class that is coming, and the sex ratio that we know is different in the Bay. I would ask that you consider this. I don't pretend that I would be able to convince you, John, either to come over to our side. But I would ask you just to consider if you are seeing the positive effects of the work that they've put in.

Because they certainly have contributed to this in such a manner that they're now coming to us and asking for relief; relief that I think that within the numbers we could do without harming the stock, and we could still move forward with this. Thank you for that consideration.

MR. JASON McNAMEE: I guess I'll start off by saying my comments aren't meant to be callous. I also appreciate the gentlemen who have come here today, and the comments that we've heard so far. But I go back to this Board tasked the Technical Committee to look at some projections.

My guess is that was done to get an assessment of risk for making some management changes, and the feedback that we've received from the Technical Committee is there is too much uncertainty; both in the harvest estimates and in the differential between where the terminal estimate is, and the fishing mortality target is, to judge them as being different from each other. There is uncertainty in multiple aspects of all of the information, such that I don't believe there is any buffer with which to work to increase harvest, change management measures.

One final point is we're focused on fishing mortality; but there is also pretty close proximity with the spawning stock biomass threshold. The risk associated with dropping below that threshold, per the addendum is pretty severe as well. I guess a judgment on the riskiness of initiating something like this, the risk is too high at this point with the information we have available.

MR. O'REILLY: I feel like we're in the middle of the Continental Congress sometimes. I think debate is healthy, but I would like to hold on to what I perceive as the facts. The facts were given by Mike Luisi when he started off, the relevance of the 2015 terminal year versus doing, and I don't mean to step on any toes here, doing some static projections; some based on information that is not even final.

I see that as a truth anyway. I also see as a truth that in Virginia we have an area called the Northern Neck. It has suffered terribly. Its charter fishery has become very reduced, and to the point where I'm always surprised when I'm reviewing requests for delayed entry into the commercial fishery; because that's probably not the place to go either.

There have been some pretty severe economic impacts. I can't sight striped bass as the reason that our Wachapreague Charter Industry became decimated. I think that started with weakfish and then summer flounder did the rest. It is problematic when someone asks for some flexibility, and doesn't ask for his own state; but offers it to the coast and says, well who wants to avail yourselves of that situation? It is also problematic that with these projections, I still am curious. There is a migration rate. That is not being addressed. Then you have to think well, to get to 28 inches at least, then where are the discards and where is the harvest and when does that occur and everything else. I think that that is sort of a weak point here as well. John Clark made a comment about the very conservative reference points. I would just like to say that SSB and F are linked, and SSB was our standard based on what 1995 was, until it was revised to be 1.25 times higher.

Some people that I respect in the stock assessment world who aren't here were shaking their heads at that point saying, how does that happen? How do we get to that spawning stock biomass? There is a lot here that I'm limiting myself to things that I know, not that others have given to me so I can interpret them some way different.

But all in all this is something that the Chesapeake Bay has really taken a turn down. If you look at the Virginia data, it is really not very attractive to watch what has happened over the last probably, it probably started with the economic downturn; but it certainly has continued with the recreational fishery. I think we just need to put all these comments together in our heads, and take a look at what Mike Luisi has offered.

DR. MICHELLE DUVAL: I also have the same concerns about timing that have been expressed by other Board members around the table, with regard to an upcoming benchmark. But I'm also very sensitive the unique characteristics of the Bay fishery, not dissimilar to the unique characteristics of the Albemarle/Roanoke stock that we have in North Carolina.

I'm also sensitive to the fact that the management regime changed significantly for the Bay states with the implementation of Addendum IV, and loss of the harvest control model to be able to respond to increases in abundance. My understanding, based on my reading of the terms of reference for the upcoming benchmark, is that this is one of those items that may be addressed.

The TC/SAS hopes to be able to provide stock specific reference points that would hopefully allow for some more flexibility in the management of the striped bass stocks along the Bay states. I guess when Jim asked me if I was speaking pro or con, and I did this; because I just wanted to offer, is there not a possibility of putting forward a plan for conservation equivalency. That is a tool that we have in the toolbox here.

I don't know if that is something that would work for the Bay states or any other state that feels like they have possibly an alternative means to meet the objectives that we're working under here. The Technical Committee provided some advice with regard to data to be used for conservation equivalency proposals, but also acknowledged that if there was justification for using alternative years the states could do so. I

just throw that out as a potential compromise.

CHAIRMAN GILMORE: Next I have Steve Train.

MR. STEPHEN TRAIN: **With this meeting already starting after it should have ended, I would like to make a motion to postpone, and if I get a second I will explain why.**

CHAIRMAN GILMORE: Okay we have a motion to postpone. It's seconded by Ritchie White. If I remember my parliamentary procedures correctly this is non-debatable, so this simply would be.

MR. TRAIN: Until the May meeting I should have added, it has to be a time certain.

CHAIRMAN GILMORE: Oh, it has to be time certain, to the May meeting. Now it's not debatable, so we're just going to have to take a vote on this to postpone. Let me give you two minutes to caucus.

MR. LUISI: Point of Order, Mr. Chairman.

MR. ADAM NOWALSKY: Point of order, Mr. Chairman.

MR. LUISI: I beat you.

CHAIRMAN GILMORE: I got seven points of order, so.

MR. LUISI: Similar to how we worked it out this morning; I think the timing is debatable to a motion to postpone. We can certainly debate the timing. I would like to make a comment to timing if we can do so.

CHAIRMAN GILMORE: You're right, Mike, go ahead.

MR. LUISI: It's been mentioned a few times about the timing of how this action would unfold; while I would in no way expect there to be any type of fast track addendum in this case, given the coastwide nature of it. We believe that if an addendum were initiated today and we could get out to the public between the May and

the August meeting of this Board; that we might be able to take final action on the addendum in August, which could help cauterize the wound if we were granted some flexibility in the regulation.

It could really help with our fall fishery, and it could stop the bleeding for our charter and commercial fishermen that have been the ones sacrificing for this. Timing of a postponement to the May meeting will only kick this further along. I just fear that we won't have an opportunity in 2017 to take advantage of relaxation in regulations; if it were granted to us by the Board through the addendum. I can't support postponing this again.

CHAIRMAN GILMORE: Russ, I know you want to make a comment, but right now we're just commenting on the timing. Do you want to comment? Okay, does anyone else want to comment on the timeframe? John McMurray.

MR. McMURRAY: To Mike's comments. I'm not sure how that timeline would work. I think maybe there is an expectation like this is going to sail through. Once you start talking about a striped bass addendum, it really fires up a lot of people in my region and north. We can expect a big turnout and a lot of aggravated people. I don't suspect this is going to be an easy process. I just would note that that timeline seems rather ambitious. I don't know whether I support this yet or not. I haven't really heard the rationale for it, but I would like to before we vote.

CHAIRMAN GILMORE: Max has got some input, so let me go to Max first then I'll get to you, Ritchie.

MR. MAX APPELMAN: Yes, I just wanted to clarify the timeline. Mike was correct. The best case scenario is that the PDT would essentially bring a draft addendum to the Board in May, and that would then get approval at that time, go out for public comment and come back in August for final approval.

MR. G. RITCHIE WHITE: May I comment on the rationale for my second? Is that appropriate?

CHAIRMAN GILMORE: Sure.

MR. WHITE: Rationale for my second is that the public in Maryland knew of this coming and had a chance to weigh in. The rest of the public did not. This would allow, this would be an agenda item at the May meeting, so all the public then would have the ability to give input to all the commissioners before that meeting.

CHAIRMAN GILMORE: Mike.

MR. LUISI: Thank you Mr. Chairman, for another bite at this one. To the timing, I could be wrong but I think the meeting this morning was probably one of the more contentious meetings that we've had regarding options in addenda. I believe that that was one that carried through the course of a couple meetings. I would say that it's doable, it's absolutely doable.

To Mr. White's point about having an opportunity for stakeholders to be here today, well the whole purpose of an addendum is to go out to the public and get comment back to the public for the Board. Motions and actions are taken all the time without everybody being aware of those actions that are going to be happening. I would say that the public will absolutely be able to weigh in through the process; delaying that process is only going to delay when that public information will be available to the Board.

CHAIRMAN GILMORE: Okay I'm going to call the question. I think we've had good debate on it, so let me just read the motion and we'll take a vote. Motion to postpone until the May meeting; the motion by Mr. Train and seconded by Mr. White, do we need a caucus for this? Okay two minutes for caucus.

MR. WHITE: Roll call.

CHAIRMAN GILMORE: Okay, I'm going to call the roll. I think we've had enough time to talk about this, so Max.

MR. APPELMAN: Following Kirby's lead, working from north to south. Maine.

MR. KELIHER: Yes.

MR. APPELMAN: North Carolina.

MR. APPELMAN: New Hampshire.

DR. DUVAL: No.

MR. WHITE: Yes.

MR. APPELMAN: U.S. Fish and Wildlife Service.

MR. APPELMAN: Massachusetts.

DR. WILSON LANEY: Yes.

MR. MIKE ARMSTRONG: Yes.

MR. APPELMAN: National Marine Fisheries Service.

MR. APPELMAN: Rhode Island.

MR. DEREK ORNER: Yes.

MR. McNAMEE: Yes.

CHAIRMAN GILMORE: **The vote was 7 in favor, 7 against, 1 null vote. The motion fails for lack of a majority. We're back to the original motion on the table.** I had a couple more comments. Time out, we have to have a recount; 7, 8, null, so it fails, same result, different vote. I had a couple more comments left. I had Steve, you put up the motion. Then I had Russ Allen, you were next.

MR. APPELMAN: Connecticut.

MR. MATTHEW GATES: No.

MR. APPELMAN: New York.

MR. HASBROUCK: Null.

MR. APPELMAN: New Jersey.

MR. RUSS ALLEN: I'm very conflicted on this one. We had an argument this morning, and a discussion about summer flounder; where every one of these discussion points were exactly the same ones we made for summer flounder. As most people know, I usually have no problem moving forward with striped bass; in order to help the Chesapeake states get what they need over time.

MR. TOM BAUM: No.

MR. APPELMAN: Pennsylvania.

MR. SHIELS: Yes.

MR. APPELMAN: Delaware.

MR. CLARK: No.

This is what has made it really conflicting, because if you were at our public hearing for summer flounder, we had well over 150 people in that room; with the same complaints that we're talking about today. It is a little mind numbing for me on this one. But I can see where I would be going against my own principals if I voted against this, so I probably will be in favor of this motion.

MR. APPELMAN: Maryland.

MR. LUISI: No.

MR. APPELMAN: District of Colombia.

DISTRICT OF COLOMBIA: No.

MR. APPELMAN: Potomac River Fisheries Commission.

CHAIRMAN GILMORE: Where did Ritchie go? I'm back to Mike Luisi again. Mike do you have other comments?

MR. GARY: No.

MR. APPELMAN: Virginia.

MR. LUISI: To the point that was just made by Russ. All morning this morning we talked about how to provide some flexibility when that

MR. KYLE SCHICK: No.

flexibility is needed. I think you've heard from me and my other colleagues in our area that we need something, we need help. I'll leave it at that. But not only do we need help, but I think that there is opportunity for other coastal states that may be able to take advantage, to some degree, to what I believe is a very limited risk on a stock that is in a healthy condition; and where reference points are very conservative. I'll leave it as my last point, and I appreciate you coming back to me, Mr. Chairman.

CHAIRMAN GILMORE: Any other comments? Go ahead, Mike.

MR. ARMSTRONG: I hear very clearly the pain, very clearly. But we can't science our way out of this problem. This is the wrong motion. The motion should be an amendment on Addendum to relax the targets; or whatever you think it needs. I wouldn't support that. I support what we have in place.

But we just heard the science do projections that say; no matter what we do, we're not going to get more fish on the path we are. The only thing is we raise the target for F. To Michelle's point, it may be conservation equivalency in the Bay that gets us. From where I sit at a target of 0.18, and we're nowhere near the target SSB, we are playing in the grounds of violating the trigger of the SSB. This motion is going to have the Technical Committee, of which my guy is the Chair, and he spends 40 hours a week working on striped bass; and he'll look at me and say, you're crazy. We're going to give you the same answer. Not that that's wrong, but I don't want to charge these folks with doing the same analysis again and getting the same answer. What I started off with. If we want to consider raising the F, it is conservative. It is a good F for recreational fishery. If we want to lower SSB targets, then I don't know if that is an amendment or an addendum. But in my mind that is where we're at. This is the wrong way to go, and I vote against it.

CHAIRMAN GILMORE: Okay I think we've gone through all the questions on both sides. I think we're ready for a vote on this. Let me go just to

the public before we vote on it. Does anybody from the public want to comment? Okay seeing no comments; no hands raised from the audience. We'll come back to the Board. I think we'll give everybody a three minute caucus on this, because I think we're going to need it; unless there is any final shot. I think everyone is pretty well – okay three minutes to caucus. Okay we're ready for the vote.

MR. LUISI: Could I ask for a roll call, Mr. Chairman?

CHAIRMAN GILMORE: Sure. Okay we're going to do a roll call vote on this. Go ahead, Max, when you're ready.

MR. APPELMAN: Maine.

MR. TRAIN: No.

MR. APPELMAN: New Hampshire.

MR. DOUGLAS E. GROUT: No.

MR. APPELMAN: Massachusetts.

MR. ARMSTRONG: No.

MR. APPELMAN: Rhode Island.

MR. McNAMEE: No.

MR. APPELMAN: Connecticut.

MR. GATES: Yes.

MR. APPELMAN: New York.

MR. HASBROUCK: Yes.

MR. APPELMAN: New Jersey.

MR. ALLEN: Yes.

MR. APPELMAN: Pennsylvania.

MR. SHIELS: No.

MR. APPELMAN: Delaware.

MR. CLARK: Yes.

MR. ORNER: No.

MR. APPELMAN: Maryland.

CHAIRMAN GILMORE: **The motion passes 8 to 7 to 1 null vote. The motion is approved.** If we're going to embark on an addendum, we're going to have to get some feedback to the Plan Development Team; and we're going to have to work, to I guess Max and the Technical Committee are going to have to be working and may need some information back from the states.

MR. LUISI: Yes.

MR. APPELMAN: District of Colombia.

DISTRICT OF COLOMBIA: Yes.

MR. APPELMAN: Potomac River Fisheries Commission.

We may have to put together a subgroup, depending, I was sort of hoping we would get cooperation; particularly from the Bay states on this. Max, do you want to add anything else? Okay. I believe as I recall before, we were not going to do Items 5 and 6. We're just down to other business. The food is spoiling; so just keep that in mind.

MR. GARY: Yes.

MR. APPELMAN: Virginia.

MR. SCHICK: Yes.

MR. APPELMAN: North Carolina.

ADJOURNMENT

DR. DUVAL: Null.

CHAIRMAN GILMORE: Is there any other business to come before the Striped Bass Board today? Seeing none, a motion to adjourn; seconded by everybody. Thank you very much.

MR. APPELMAN: U.S. Fish and Wildlife Service.

DR. LANEY: No.

(Whereupon the meeting adjourned at 12:55 p.m. on February 2, 2017.)

MR. APPELMAN: National Marine Fisheries Service.

From: [info](#)
To: [Max Appelman](#)
Subject: FW: Striped Bass conservation
Date: Monday, April 24, 2017 4:26:31 PM

Public comment

From: David A. Kolb [mailto:lama1954@yahoo.com]
Sent: Saturday, April 22, 2017 3:44 PM
To: info <info@asmfc.org>
Subject: Striped Bass conservation

To Whom It May Concern,

The quality of our striped bass fishery is very important to me. I do not want to see striped bass harvest levels returned to the levels of 2013 because I believe those levels will just continue to degrade this fishery. Striped bass are a great game fish and good fishing is extremely valuable to the 3,000,000 people who angle for stripers along the Atlantic coast. We don't want striped bass to become just another depleted commercial species. Please vote no on Addendum V to Amendment 6.

Thank you,
David A.Kolb MD

From: [alan bedard](#)
To: [Max Appelman](#)
Subject: Stripper harvest
Date: Wednesday, February 08, 2017 10:30:41 AM

Please do not relax the striper harvest this season. I live on Cape Cod and have fished the cape waters for 50 yrs. although last season was a bit better than the prior 3 or 4 yrs it still needs time to recover. The commercial lobby is the voice pushing for an increase. Numerous studies have shown that the economic impact of the recreational catch is 7 or 8 times larger than the commercial value. If we allow the stocks to recover for another year or two everyone will benefit. I remember the 1980's when overfishing and poor mgt brought the fishery to almost collapse. I have 2 grandsons who I am teaching to fish and a love for the ocean. I'm concerned for what we might leave them.

Please support the fishery and not the recreational or commercial lobby.

Thanks for listening

Alan bedard
Buzzards Bay Ma

From: Alex Powers [<mailto:powersalexb@netscape.net>]
Sent: Tuesday, February 21, 2017 9:20 AM
To: Max Appelman <mappelman@asmfc.org>
Subject: PLEASE DO NOT INCREASE THE STRIPER HARVEST!!!

Having fished in and around NYC and Eastern Long Island for the past 25 years, I have seen the striped bass fishery over-fished to near extinction and then, slowly, through regulation, brought back to amazing shape in 2010/2011.

Over the past 6 years, however, the numbers and size of the fish has STEADILY DECLINED from its peak and is now, in my opinion, on the verge of collapse once again.

Between the disease that ran rampant 2/3 years ago (mycobacteriosis), the increased poaching (yes, that's a real thing at least in the NY area) and the legal over-fishing of the striper population as well as their forage fish supply (which is now being caught commercially and turned into cat food or fish farm pellets), the striped bass is once again on the verge of extinction.

PLEASE DO NOT ADD FUEL TO THIS FIRE!!! DO NOT INCREASE THE HARVEST IF YOU WANT YOUR KIDS AND GRANDKIDS TO ENJOY THIS FISHERY!!!

Sincerely,
Alex Powers
powersalexb@aim.com

From: Andrew Cravin [<mailto:acravin0228@gmail.com>]

Sent: Saturday, February 11, 2017 10:04 PM

To: Max Appelman <mappelman@asmfc.org>

Subject: DO NOT INCREASE THE QUOTA PLEASE!!

Please do not increase the quota for striped bass this year. In order for bass to once again become a sustainable fishery, it is imperative that we continue to give them relief from over fishing. Increasing quotas at this time, would be short sighted and nothing but a step backwards and a reversal of the positive steps that were taken last year. Please continue to work towards increasing the stock and achieving spawning target levels.

Thank you for your time

From: [Bob Sirois](#)
To: [Max Appelman](#)
Subject: Striped Bass Regulatons
Date: Friday, February 10, 2017 1:55:46 PM

Sir,

At 63, I've lived through some feast and famine fishing times, PLEASE do not increase the quota for striped bass this year. I strongly believe as most I know that it is imperative that we continue to give them relief from over fishing. Increasing quotas at this time, would be short sighted and nothing but a step backwards and a reversal of the positive steps that were taken last year. Please continue to work towards increasing the stock and achieving spawning target levels.

Thanks for your consideration.

From: [Carl Vonnegut](#)
To: [Max Appelman](#)
Subject: Striped Bass Quota
Date: Friday, February 10, 2017 12:44:03 PM

Dear Sir,

Please do not increase the quota for striped bass this year. In order for bass to once again become a sustainable fishery, it is imperative that we continue to give them relief from over fishing. Increasing quotas at this time, would be short sighted and nothing but a step backwards and a reversal of the positive steps that were taken last year. Please continue to work towards increasing the stock and achieving target spawning levels.

Thank you,

Carl Vonnegut

From: [info](#)
To: [Max Appelman](#)
Subject: FW: Striped Bass Proposed Amendment for Chesapeake Bay Anglers
Date: Thursday, February 09, 2017 12:51:21 PM

From: Chris & Margret Arfsten [mailto:c.arfsten@verizon.net]
Sent: Thursday, February 09, 2017 10:16 AM
To: info <info@asmfc.org>
Subject: Striped Bass Proposed Amendment for Chesapeake Bay Anglers

Dear Commission Members,

I am writing to express my opposition to the propose change in the Striped bass regulations regarding the fishery in the Chesapeake Bay area. When Addendum IV was put into effect they effectively lobbied to reduce their catch only by 20.5% not the 25% reduction everyone else agreed to.

Now the most recent catch data shows that the anglers fishing within this area have failed to reduce their catch by the required 20.5%, but have exceeded the 2013 harvest by 58.4%. There's no basis to the argument that the commercial or recreational anglers are suffering from the restrictions imposed on them under Addendum IV, in fact it looks like there in blatant disregard of the reduction required under Addendum IV.

I urge you to hold the line and not make another exception to allow them to increase their catch. Help the Striped Bass fishery by protecting that 2011 year class classified by yourselves as most important to the wellbeing of the future Striped Bass fishery.

Sincerely,
Christfried Arfsten

From: [danantonius1](#)
To: [Max Appelman](#)
Subject: Striped Bass Quotas
Date: Friday, February 10, 2017 9:08:29 AM

Sir

Please do not increase the quota for striped bass this year. In order for bass to once again become a sustainable fishery, it is imperative that we continue to give them relief from over fishing. Increasing quotas at this time, would be short sighted and nothing but a step backwards and a reversal of the positive steps that were taken last year. Please continue to work towards increasing the stock and achieving spawning target levels.

Thank you for your time

Dan Antonius
Weymouth, MA

From: David English [<mailto:Denglish@lyne.com>]

Sent: Tuesday, March 21, 2017 7:46 PM

To: Max Appelman <mappelman@asmfc.org>

Subject: Please do not increase the quota for striped bass this year

Sir

Please do not increase the quota for striped bass this year. In order for bass to once again become a sustainable fishery, it is imperative that we continue to give them relief from over fishing. Increasing quotas at this time, would be short sighted and nothing but a step backwards and a reversal of the positive steps that were taken last year. Please continue to work towards increasing the stock and achieving spawning target levels.

Thank you for your time

Dave English

David R. Price
10 Phelps Avenue
Bayville, NJ 08721
732-864-6505

February 21, 2017

ASMFC
1050 N. Highland Street
Suite 200 A-N
Arlington, VA 22201

Attn: ASMFC Council

RE: Addendum V "Liberalizing" Striped Bass Regulations.

Dear Mr. Appleman,

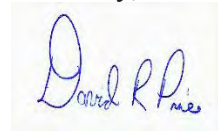
This email is a follow up to my phone message sent to you on February 21, 2017 at 2:00 PM. I want to take this moment to express my concerns with the ASMFC proposal for Draft Addendum V to Amendment 6 as a means to "liberalize" the regulations set in 2015. Following the new regulations set under Addendum IV in 2015 which indicated a 25% reduction for member states and 20.5% for the Chesapeake region the striped bass fishing has continued to be poor in areas from New Jersey to many New England states. In addition, there is significant anecdotal evidence by the very men and women that fish these waters with great regularity that the fishing is not what it used to be and needs continued protection from over harvesting.

I understand there is a great deal of research and data collected to arrive to the final reduction numbers however, we need to continue on the path of caution. It was stated in the June 2016 Maryland Fisheries Management Report that projections from the 2015 stock assessment indicated that the striped bass could fall below its threshold reference point and possibly breach the Atlantic Coast fishing mortality (F) rate and that continued support of Addendum IV would be vital. Knowing that there is a possibility of the striped bass falling below its threshold and the mortality rate increasing over time it would be in the fisheries best interest to continue with strong regulations in favor of striped bass harvest. Even with the current regulations in place countless spawning aged fish are harvested each year through the recreational and commercial sectors with many large females from 20-50 pounds taken out of the stock on a regular basis. These are the very fish important to the health of the stock as well as the fish coming to maturity within the Chesapeake Bay system that will soon join the coastal migration as well as add additional spawning aged fish. The fishery and those that depend on the striped bass cannot afford to ease regulations in such an uncertain time with the health of the fishery.

I hope that I have convinced you that continued support of striped bass conservation is a must. The ASMFC needs to stay on track with the regulations enacted in 2015 via Addendum IV as

there is significant rebuilding of the fishery that has yet to take place. If we are lucky enough to achieve a fully recovered fishery I hope that we can all agree to manage this fish in a more sustainable manner and to avoid this reoccurring issue with striped bass. I plead you to take action to oppose any easement of regulations of striped bass and support the conservation of the striped bass fishery. Thank you for your consideration.

Sincerely,

A handwritten signature in blue ink that reads "David R. Price". The signature is written in a cursive style with a large initial "D".

David R. Price

732-864-6505

david.price923@gmail.com

From: EdTwohig [<mailto:edzovt@yahoo.com>]
Sent: Friday, February 17, 2017 12:34 AM
To: Max Appelman <mappelman@asmfc.org>
Subject: Striped Bass

Mr Appelman,

I am a recreational fisherman and a reader of On The Water magazine. I spend a lot of time on Cape Cod from spring to fall and I am a catch and release fan. I keep one Striped Bass a year, on average. Some years none. Some years two.

I was reading about the Striped Bass and the limits and I was dismayed.

While 2011 was a good year, I don't think the Striped Bass have recovered enough. I caught a LOT of schoolie sized last year. Almost exclusively 19-24" it was kind of sad.

Please don't increase the numbers. I'd support a slot or even a one per day or even a tag system. Where you can keep a handful of them for the whole year. The commercial fleet need to be addressed (especially the draggers) and so does the seal over population. It's time to cull that herd. (Not to mention the threat it brings to swimmers re: sharks).

If the Striped Bass vanish, it will really hurt the Cape Cod economy.

Thank you for listening.

Ed Twohig
Essex VT
802 825 8840

Sent from my iPhone

From: [eric](#)
To: [Max Appelman](#)
Subject: Striped bass
Date: Thursday, February 09, 2017 9:57:14 PM

Please do not change the striped bass regulations until spawning stock targets are met. The decline in stripers has taken a big toll on jobs in the recreational fishing industry in the northeast.

Eric Harrison

Sent from my iPhone

From: [frank](#)
To: [Max Appelman](#)
Subject: MA Striped Bass Fishery
Date: Tuesday, April 18, 2017 4:24:18 PM

To Whom It May Concern,

The quality of our striped bass fishery is very important to me. I do **not** want to see striped bass harvest levels returned to the levels of 2013 because I believe those levels will just continue to degrade this fishery. Striped bass are a great game fish and good fishing is extremely valuable to the 3,000,000 people who angle for stripers along the Atlantic coast. We don't want striped bass to become just another depleted commercial species. Please vote no on Addendum V to Amendment 6.

Thank you for helping those of us who care about this great resource...

frank pitzi
Nahant, MA

From: Gary & Debbie George [<mailto:sparrowlane16@yahoo.com>]

Sent: Saturday, February 11, 2017 11:27 AM

To: Max Appelman <mappelman@asmfc.org>

Subject: Striped Bass regulation changes

To whom it may concern.

My name is Gary George I am a life long fisherman and license captain. I believe if you protect the fish you protect the fisherman. With this in mind I would like to see striper stocks back to target levels before increasing mortality.

Sincerely

Gary George

From: James Sabatelli [<mailto:mobileweighstation@gmail.com>]
Sent: Friday, February 24, 2017 1:31 PM
To: Max Appelman <mappelman@asmfc.org>
Subject: Striped Bass issue

Hi Matt,

I believe it is very bad idea to consider increasing the increasing the Striped Bass Harvest. As a matter of fact, I believe they should implement more stringent restrictions. I have been fishing for nearly 40 years and 2016 was one of my worst in a long time.

Each year myself and my fishing buddies have been witnessing a steady decline in the amount of fish we catch along with the size. The season is starting later and ending earlier. Places that used to hold fish, no longer do. The number of trips I have taken last year was half of what I have been average for the past several. There is just not that many fish around to make the trips worthwhile. For example, last Fall I should have been into a good amount of fish like I used to be until a few years ago. Last year at that time, 2 hours of fishing would yield only one schoolie Striper which is not nearly enough to justify me running out after dinner when I have work early the next morning.

I am hoping you can share this email with your colleagues. I am not looking to shut out any one user group. However, the past limits of 2 fish at 28" have been doing just that to me and others. Any increase of the current 1 at 28" I am certain will continue to have an adverse effect. My goal is to have a fishery that we can all enjoy. As a matter of fact I have created a fishing app that estimates the length and weight of a fish in the hope that this will deter some people from harvesting a fish they have no intentions of eating and only intend to show it friends and family. The concept came about while Striper fishing. Take a look when you get a chance. My website is fishermansmobileweighstation.com. There is also a demonstration video under [App Instructions](#). Maybe you can share this with others.

Thanks,

Jimmy

From: Jason Ludwig [<mailto:ludwigfamily1@yahoo.com>]

Sent: Saturday, February 11, 2017 6:56 PM

To: Max Appelman <mappelman@asmfc.org>

Subject: Striped bass

To Whom this may concern,

Please do not increase the quota for striped bass this year. In order for bass to once again become a sustainable fishery, it is imperative that we continue to give them relief from over fishing. Increasing quotas at this time, would be short sighted and nothing but a step backwards and a reversal of the positive steps that were taken last year. Please continue to work towards increasing the stock and achieving spawning target levels.

Thank you for your time

Jason Ludwig

978 808 4054

From: [Jeff Amberson](#)
To: [Max Appelman](#)
Subject: Striped Bass
Date: Wednesday, February 08, 2017 11:15:50 AM

Sir

Please do not increase the quota for striped bass this year. In order for bass to once again become a sustainable fishery, it is imperative that we continue to give them relief from over fishing. Increasing quotas at this time, would be short sighted and nothing but a step backwards and a reversal of the positive steps that were taken last year. Please continue to work towards increasing the stock and achieving spawning target levels.

Thank you for your time
Jeff Amberson

From: Jeff Aucone [<mailto:jeff.sysa@gmail.com>]
Sent: Wednesday, February 08, 2017 2:54 PM
To: Max Appelman <mappelman@asmfc.org>
Subject: Striped Bass Quota Change--Step Backwards

Good Day,

Please do not increase the quota for striped bass this year. In order for bass to once again become a sustainable fishery, it is imperative that we continue to give them relief from over fishing. Increasing quotas at this time, would be short sighted and nothing but a step backwards and a reversal of the positive steps that were taken last year. Please continue to work towards increasing the stock and achieving spawning target levels.

Thank you for your time.

Jeff Aucone

From: [John Gans](#)
To: [Max Appelman](#)
Subject: ASMFC- Striped Bass
Date: Wednesday, April 19, 2017 9:30:25 AM

Mr Hasbrouck,

The quality of our striped bass fishery is very important to me. I do not want to see striped bass harvest levels returned to the levels of 2013 because I believe those levels will just continue to degrade this fishery. Striped bass are a great game fish and good fishing is extremely valuable to the 3,000,000 people who angle for stripers along the Atlantic coast. We don't want striped bass to become just another depleted commercial species. **Please vote no on Addendum V to Amendment 6.**

Thank you,
John Gans

From: [John Glanton](#)
To: [Max Appelman](#)
Subject: Increasing Striper Harvest
Date: Thursday, February 09, 2017 4:45:10 PM

Mr. Appelman,

I recently read the article that the ASMFC are considering increasing the striper harvest due to some specious new data indicating a rebound in the fishery.

It is extremely foolish to increase the harvest at this point when, if this data is to be believed, the decades of plummeting striper population is beginning to level off.

To allow an increase at this juncture would be financially disastrous to these same fishermen who claim poverty from the regulations in the long run when the population tanks again.

I believe the assessment that these stripers are not being overfished is incorrect, but even if these numbers turn out to be accurate, a thorough vetting of the data should be carefully assessed for SEVERAL YEARS to thoroughly determine whether an increase is warranted.

I am an avid fisherman and as someone who respects this fishery, I implore the board to reconsider this increase.

Sincerely,
John Glanton

From: [Jonathan Parsons](#)
To: [Max Appelman](#)
Subject: RE: striped bass stocks
Date: Wednesday, February 08, 2017 11:23:08 AM

Please do not undo the catch reduction implemented in 2015 just so the MD commercial guys can make more \$\$\$.

Striped bass are overfished and overfishing IS currently occurring. From the peak that I saw in 2007, every year there are less and less stripers along the New England coast. We have 15,000+ seals to deal with, relentless overharvest of bunker, herring, mackerel, squid, etc. (all forage fish), and ocean water warming. Illegal harvest from poachers, gill-netters, under-sized, over-limit, and that's not counting the commercial guys who pretend to be rec anglers on the closed days. Poor enforcement of existing laws + regs.

We don't have to repeat the same mistakes of the early 80's. There's no need to go down that road again and expect different results.

Thanks,

--

- jon parsons

From: jon wurtmann [<mailto:jwurtmann@gmail.com>]

Sent: Friday, February 10, 2017 11:55 AM

To: Max Appelman <mappelman@asmfc.org>; Stephen Dempsey <sdempse2@nycap.rr.com>

Subject: Striper Regs

Good day,

Could you send me more information regarding the proposed addendum to the Striped Bass Management Measure?

We should not be putting regional economic concerns above the long-term viability of this important and majestic species.

Thank you,

Jon Wurtmann

jwurtmann@gmail.com

From: Joshua Stuckart [<mailto:jmstuckart@gmail.com>]

Sent: Monday, February 13, 2017 4:14 PM

To: Max Appelman <mappelman@asmfc.org>

Subject: Striped Bass Quota

Good afternoon,

Please do not increase the quota for striped bass this year. In order for bass to once again become a sustainable fishery, it is imperative that we continue to give them relief from over fishing. Increasing quotas at this time, would be short sighted and nothing but a step backwards and a reversal of the positive steps that were taken last year. Please continue to work towards increasing the stock and achieving spawning target levels.

Thank you.

Joshua Stuckart

From: Justin Cordonnier [<mailto:Justin.Cordonnier@bfim.com>]
Sent: Monday, February 27, 2017 1:39 PM
To: Max Appelman <mappelman@asmfc.org>
Subject: Striped Bass Harvest Limits

Mr. Appelman,

I'm writing to encourage you NOT to increase the harvest of striped bass. I've lived and fished in Massachusetts for almost 20 years, and I've noticed a significant decline in my catch rate and average size of fish over the past 5+ years. My experience is corroborated by discussions with other fishermen, survey results, and scientific reports. I'd love it if the striped bass population could recover to the levels I experienced in the early 2000s.

Personally, I'm in favor of not allowing recreational fishermen to keep any stripers, as well as reducing (and hopefully someday eliminating) the commercial harvest. I'm not familiar with the commercial fishery for stripers in all Atlantic states, but I do know that in Massachusetts, only a handful of commercial fisherman make any reasonable amount of income as a result of striper fishing. It doesn't make sense to me to maintain or increase commercial harvest for the benefit of a few, when the exponentially larger number of recreational fishermen are subject to a greatly diminished fishery. The positive economic impact of a vibrant recreational striper fishery would be much more beneficial to a larger number of people and businesses than continuing to set commercial limits that only benefit a small number of commercial fishermen but do significant harm to the fishery.

Thanks for your consideration,
Justin Cordonnier
Needham, MA

 Please consider the environment before printing this email.

From: [Ken Mathis](#)
To: [Max Appelman](#)
Subject: Sustainable Striper fishery
Date: Wednesday, February 08, 2017 9:57:42 PM

Dear Sir,

I have been a recreational striper fisherman since 2007 and fish at least once a week (June 'til August) and have seen a steady **decrease** in numbers. I fish Massachusetts and New Hampshire. I am sure the commercials guys are seeing the numbers dwindle as well.

Please do not increase the quota for striped bass this year. In order for bass to once again become a sustainable fishery, it is imperative that we continue to give them relief from over fishing. Increasing quotas at this time, would be short sighted and nothing but a step backwards and a reversal of the positive steps that were taken last year. Please continue to work towards increasing the stock and achieving spawning target levels.

Kind regards,

Ken Mathis

Cell (603) 860 6119

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From: [konrad.miatkowski](#)
To: [Max Appelman](#)
Subject: I am against quota increase
Date: Thursday, February 09, 2017 11:35:33 AM

Please do not increase the quota for striped bass this year. In order for bass to once again become a sustainable fishery, it is imperative that we continue to give them relief from over fishing. Increasing quotas at this time, would be short sighted and nothing but a step backwards and a reversal of the positive steps that were taken last year. Please continue to work towards increasing the stock and achieving spawning target levels.

Konrad Miatkowski
Recreational fisherman

From: Carothers, Matt (Boston) [<mailto:Matt.Carothers@right.com>]
Sent: Monday, February 13, 2017 3:21 PM
To: Max Appelman <mappelman@asmfc.org>
Subject: Opposed to Draft Amendment V

I am writing to express opposition to loosening regulations concerning Striped Bass.

For the past 20 years I have seen the numbers and size of bass fall steadily in Massachusetts and I remain concerned about putting increased pressure on this resource.

2011 year class is the one bright spot in a series of poor recruitment years and the last thing managers should be doing is increasing limits or harvest.

Just because the 2016 stock assessment described bass as “not overfished” doesn’t mean you should undo the progress from Amendment IV. Please give these fish a break!

Thank you

Matt Carothers
Vice President, Business Development

Right Management
155 Federal St
Boston MA 02110
United States

Phone 6175569103
Mobile 6173726403
matt.carothers@right.com
www.right.com

Keep current on leading Talent Practices here:
[Right Management ThoughtWire](#)



From: [Matthew Leite](#)
To: [Max Appelman](#)
Subject: Striped Bass Fishery
Date: Thursday, February 09, 2017 6:12:57 PM

Mr. Appleman,

My name is Matt Leite and I am an avid surf fisherman in Massachusetts, mostly fishing the Cape Cod Canal. I read an article at On The Water stating that there is consideration for increasing the Striped Bass harvest. I just wanted to express my opinion and tell you I believe the limits are fine where they are and I do not feel it should be increased. I believe that although some of the recent studies cited are showing good signs within the fishery, Striped Bass should remain highly protectect to ensure that the fishery continues to grow and remain strong.

While some studies say that overfishing is not occurring, I beg to differ. I see people keeping illegal fish and overfishing quite often and try to report then as often as possible. For recreational fisherman, I do not see any reason why someone would need to keep more than one fish per day. While that is the current law, there are certainly people who keep far more than that, and I am sure the same cloak and dagger methods are being used on the commercial side. I believe that if the harvest limit is increased, so will the numbers of illegally kept fish.

Long story short, in my humble opinion, I do not think it is a good idea to allow fishermen, recreational or commercial, to be allowed to keep more Striped Bass than they are already allowed by law. While I catch and release most of my fish each season, I understand people depend on Striped Bass for food and for income. With that said, I don't know anyone who eats Striped Bass 365 days a year and I don't know any commercial fishermen who do, or have to, fish exclusively for Striped Bass for a living.

The saying goes, "there are plenty of fish in the sea." But, what if there weren't? Please, keep the limit low.

Sincerely,

Matt Leite

[Sent from Yahoo Mail for iPad](#)

From: McLane Cover [<mailto:mcover@mistralcap.com>]
Sent: Monday, February 13, 2017 6:30 PM
To: Max Appelman <mappelman@asmfc.org>
Subject: RE: Increasing striped bass harvest

Dear Max

Once again we are faced with the possibility of increasing the striped bass harvest. This time it's due to "economic hardship". I can appreciate a commercial fisherman's need to make a living but the value of state revenues and revenues associated with recreational fishing *vastly exceeds* the value of the commercial striped bass fishery. Why to keep debating the issue? It's become an annual debate. It's absurd...

Give the fishery time to rebound over 3-5 YEARS and then reconsider increasing the commercial limits when it can be justified with hard data.

Moreover, consider a slot limit to reduce the number of breeding fish taken by commercial line fisherman

Best,

McLane Cover
mcover@mistralcap.com
(W) 781.329.5450
(M) 617.510.5209

From: [Stinking Wally](#)
To: [Max Appelman](#)
Subject: Do Not Raise Striped Bass Quota
Date: Friday, February 10, 2017 12:07:18 PM

Max Appelman,
Fishery Management Plan Coordinator

Dear Sir:

Please add me to the ranks of those that think it is a bad idea to increase the quota for striped bass this year. In order for bass to once again become a sustainable fishery, it is imperative that we continue to give them relief from over fishing. Increasing quotas at this time, would be short sighted and nothing but a step backwards and a reversal of the positive steps that were taken last year. Please continue to work towards increasing the stock and achieving spawning target levels.

Thank you for your time,

Michael Sullivan
Georgetown, MA

-----Original Message-----

From: Nick Wigglesworth [<mailto:ndwiggs11@gmail.com>]

Sent: Saturday, April 15, 2017 10:08 AM

To: Max Appelman <mappelman@asmfc.org>

Subject: Striped Bass

Dear Mr. Appelman,

My name is Nick Wigglesworth and I am 19 year old avid striped bass fisherman. I am emailing you to share my concern over the possibility of increased commercial catch limits in the Chesapeake Bay area. Over the past 5 years of fishing on the North Shore of Massachusetts, I have come to the general consensus that I have been catching a lot less fish in general and a lot less fish over the limit of 28". Even in these past 5 years the small fishing community up here and I have noticed that there simply seems to be fewer fish out there. The Chesapeake Bay is an incubator for this species and I believe that increasing the catch limit in these waters will have a negative impact on the stock as a whole and on the recreational fishery that so many people from Maryland to Maine enjoy taking part in. The striped bass population already seems to be shrinking so to me, increasing commercial catch limits makes absolutely no sense at all. The best part of catching striped bass is the fight, not the kill.

Thank you for taking my point into consideration.

Sincerely,
Nick Wigglesworth

From: Peter Laurelli [<mailto:plarelli@evestment.com>]
Sent: Friday, February 24, 2017 12:59 PM
To: Max Appelman <mappelman@asmfc.org>
Subject: A Striped Bass, a Divorced Father, and Two Young Daughters

Dear Max,

As the subject notes, I'm a divorced father of two young girls, Caroline and Grace, ages 8 and 7. I grew up offshore fishing in Rhode Island with my father, scanning the ocean's horizons for fins when I was my girls' age. Memories and images absorbed back then have led to a lifetime of being drawn back to the ocean to interact with its inhabitants, and their often dramatic habitats.

Having less time with my girls now, taking them fishing is one way I can share many positive life lessons in a healthy, fun, yet unfortunately condensed way. Being able to interact directly with nature, to recognize at once both its strength and fragility, and understand that we each have a solemn role as one of its many caretakers is impossible to teach a child with words, and even more difficult to do without a species in relative abundance.

Early last Spring, I was fortunate enough to have my girls on the front of my paddleboard for an interaction with a striped bass none of us will soon forget. As a team with my fly rod, we sight-fished, landed, and released a 44" bass in shallow water. The first attached photo is the reaction of my daughters as to how big they thought the fish was. The second photo is of my older daughter holding a story she wrote later in the day, by herself, in her own moments of reflection. The third is a photo my daughter took of the fish. She was very proud to be the camera holder for the event.

Being recently divorced, I understand moments like this are fleeting, and can make a lasting difference not only in a father/daughter relationship, but in a child's ultimate development. Seeing them enjoy the outdoors, being healthy, happy, strong, yet gentle young ladies showed me that no matter what is happening around them, they will be ok.

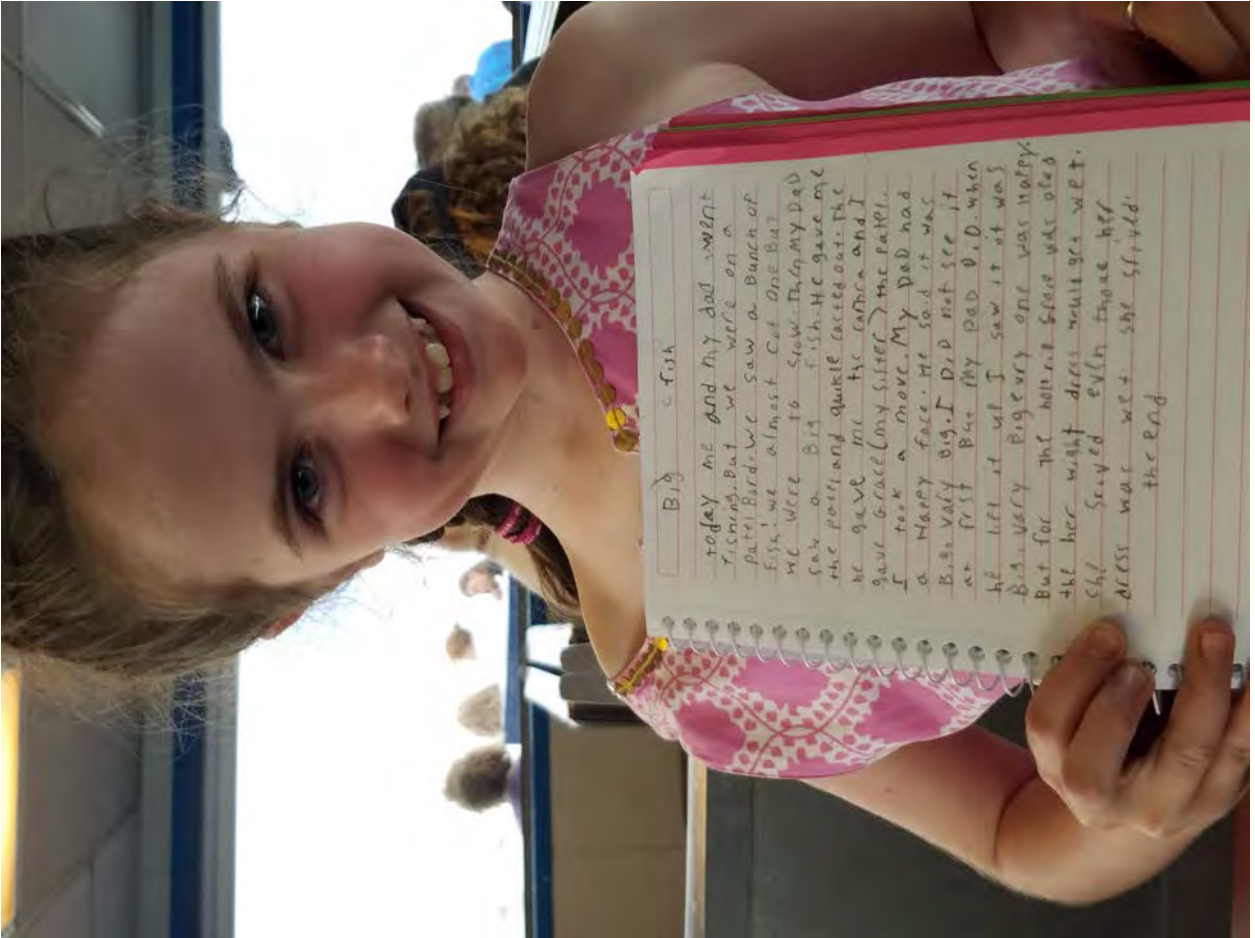
As I write these words, sitting here at work, I feel tears on my cheeks and my throat tightening up. Before I know it these girls will be grown and on their own. It's very likely we may never have another opportunity like this one. **But it happened.** It happened because somewhere down the line, many years ago, a series of individuals made decisions to protect a humble species.

I'm writing this letter to express my feelings to you that the striped bass population is important beyond your state's borders, and that you might consider all the people these fish may touch through their lifespan.

Thank you for reading our story.

Sincerely,
Peter Laurelli

eVestment
Office: +1 212 230 2216 Cell: +1 917 597 9053 www.evestment.com



Big Fish

today me and my dad went fishing, but we were on a Patel Bird. We saw a bunch of fish! we almost cut one but we were to slow. Then my dad saw a big fish. He gave me the pole and quickly casted out. The he gave me the camera and I gave Grace (my sister) the pole. I took a movie. My dad had a happy face. He said it was a big fish. I did not see it at first but my dad did. when he left it up I saw it it was a big fish. Every one was happy. But for the moment there was one the her might dress might get wet. she saved my life. her dress was wet she smiled. the end



From: [rht1898](#)
To: [Max Appelman](#)
Subject: Draft Addendum V to Consider Liberalizing SSB
Date: Tuesday, February 07, 2017 3:22:50 PM

Dear Sir,

I am writing to express my disagreement with the idea of liberalizing the harvest of Atlantic Striped Bass. Based on my reading of the Atlantic Striped Bass Stock Assessment, it appears the current biomass is well below the target management threshold of approximately 72,000 mt and just slightly above the minimum threshold of 57,626 mt. While I understand that there could be some economic hardship occurring due to the 2015 reductions, it is necessary to rebalance the underlying economic infrastructure to a sustainable natural resource. Clearly, the pre-2015 economic interest were damaging the fishery to the point of requiring a harvest reduction. Without requiring more time for the underlying economic structure to adjust to the lower catch limits while allowing the SSB to increase to the target 72,000 mt tons, the imbalance of economic interest to natural resource will only continue.

I ask that this liberalization draft be rejected.

Best regards,
Richard Taft

From: [Bob](#)
To: [Max Appelman](#)
Subject: Re: Striped bass
Date: Friday, April 21, 2017 8:40:24 PM

On Apr 21, 2017, at 8:46 PM, Bob <nardone52@comcast.net> wrote:

To Whom It May Concern,

The quality of our striped bass fishery is very important to me. I do not want to see striped bass harvest levels returned to the levels of 2013 because I believe those levels will just continue to degrade this fishery. Striped bass are a great game fish and good fishing is extremely valuable to the 3,000,000 people who angle for stripers along the Atlantic coast. We don't want striped bass to become just another depleted commercial species. Please vote no on Addendum V to Amendment 6.

Make Striped Bass a sport fish only

Thank you,
Robert Nardone

From: romanaround5246 [<mailto:romanaround5246@gmail.com>]

Sent: Sunday, February 12, 2017 6:28 PM

To: Max Appelman <mappelman@asmfc.org>

Subject: Striper Plan

Hi Max Appelman,

I am writing to you in order to voice my opinion on the ammendment concerning relaxing the limits on Striped Bass. It's funny how the ASMFC seems to taylor to the commercial sector. First there was talk about having to buy stamps to buy out their boats but when they tried that for the trawlers they just went out and bought new boats. The commercial sector is doing the most damage out there. I was at a DEEP hearing and Connecticut and we were given a staggering statistic. They informed us that for 10 fish that the recreational angler catches and released only 2 die. In the commercial sector for 10 fish that are caught and thrown back, on 2 will survive. These fish are dumped out of the nets and sit on the deck of the boats while they are gone thru to see if they are going to be kept. No one is accounting for any of these fish. They need to have monitors aboard the ships to assure that all rules are being adhered to. And they need to rotate to there is no buddy, buddy going on. I have fished a few times with monitors on board the BlackHawk, and had no problem. The reports coming out of Chesapeake region stated that the striped bass spawn was one of the worse spawns to date. How can you even consider this proposal at this time unless the commercial sector is filling your pockets. Make the right choice this time unlike the fiasco you have created with the bottom fish.

Sincerely,

Roman Dudus

From: [Ron Grey](#)
To: [Max Appelman](#)
Subject: Striper quotas
Date: Friday, February 10, 2017 7:59:51 AM

Good morning,

Please do not increase the quota for striped bass this year. In order for bass to once again become a sustainable fishery, it is imperative that we continue to give them relief from over fishing. Increasing quotas at this time, would be short sighted and nothing but a step backwards and a reversal of the positive steps that were taken last year. Please continue to work towards increasing the stock and achieving spawning target levels.

Thanks for your time,
Ron Grey

Sent from my iPhone

From: [Shane Yellin](#)
To: [Max Appelman](#)
Subject: striped bass regulations
Date: Wednesday, February 08, 2017 9:56:03 AM

Dear Mr. Appelman,

Please reject any and all attempts to increase striped bass mortality. With the 2011 year class being critical to our future spawning abilities, it is important that harvest is managed sustainably. The current tactic of MSY is also not ready for what will come with the pending destruction of the EPA. We have all seen how pollution and unpredictable weather can affect the spawn and this will become even less predictable in the coming years. In addition to this, allowing the SSB the opportunity to rebuild to the target not just the threshold would result in a boon for ailing tackle shops and charters.

I feel for the commercial fishermen, but they are short sighted in their desire to fill their wallets now when their future hangs in the balance. It's much faster to rebuild a stock that has spawning fish in it, than to lose year classes hoping the next generation makes it to spawning size and is successful. Finally, careers like mine depend on healthy fisheries almost as much as commercial fishermen and I'm not the only one. Please take all these things into account as I hope to introduce my young nephew to the magic of striped bass fishing in a few years.

Thank you for your time and attention on this critical issue,

Shane Yellin

Hobie Cat Fishing Engineer

From: [shirish.nadkarni](#)
To: [Max Appelman](#)
Subject: Atlantic Striped Bass
Date: Thursday, February 09, 2017 8:32:14 AM

Respected Sir,

Please do not increase the quota for striped bass this year. In order for bass to once again become a sustainable fishery, it is imperative that we continue to give them relief from over fishing. Increasing quotas at this time, would be short sighted and nothing but a step backwards and a reversal of the positive steps that were taken last year. Please continue to work towards increasing the stock and achieving spawning target levels.

Thank you for your time

Shirish Nadkarni

From: [Simon Winchell-Manning](#)
To: [Max Appelman](#)
Subject: Comment against increasing the striped bass quota
Date: Thursday, February 09, 2017 8:48:10 AM

Please don't increase the quota for striped bass this year. The stock has not yet reached targets, and has had subpar young-of-year results in the majority of recent years. In my part of Massachusetts, almost all of the other saltwater species that anglers used to pursue, such as cod and winter flounder have nearly disappeared. Since the striped bass is all we have left, it is even more important to manage it conservatively.

Best,
Simon Winchell-Manning

From: Stephen Brooks [<mailto:sbbrooksjr@gmail.com>]
Sent: Friday, February 24, 2017 5:41 PM
To: Max Appelman <mappelman@asmfc.org>
Cc: Priscilla Brooks <pbrooks@clf.org>; Bonsal Brooks (bonsal@parkingpanda.com)
<bonsal@parkingpanda.com>; Ira Goldklang <igoldklang@gmail.com>
Subject: Protecting Striped Bass

Dear Mr. Appelman,

Thanks to "Talking Fish" I read about the proposal to increase the catch limits in the Chesapeake and I thought I might offer a short comment. That comment is: No, bad idea, please put this whole concept in the closest circular file!

I say this as a recreational, 100% lure, and 95% + catch and release striper fisherman. Most of my fishing is done in Southern Maine where we have a one per day limit, either 20" to 26" or over 40". Limits are set to preserve a fishery, and they should be on the conservative side. The joy of striper fishing is in the catch and fight, not the kill. Striped bass is the best game fish we have in our Northeastern coastal waters and all of us who cherish chasing them need to back well conceived, fair regulatory efforts to support and preserve the fishery.

Thanks,

Stephen B. Brooks, Jr.
New Bedford, Mass.

From: Heidi Knapp [<mailto:thjknapp@comcast.net>]
Sent: Saturday, February 11, 2017 8:29 PM
To: Max Appelman <mappelman@asmfc.org>
Subject: Striped Bass Rule Changes

Depressing. The commercial fish lobby doing what they do best.

Short term thinking yields long term "hardship".

We can't even give it four or five years....so sad.

I'm too old to go on, and you have heard it all before, and the lobbyists in this part of the country always win.

Watching how much of the rest of the country has learned, is learning how to create healthy, stable stocks, and watching this mess is a hopeless task.

I hope some backbone is shown. I expect none. The butchery and poaching of large fish is depressing,

Tom Knapp

Fisherman of 50 years...seen it all...the striped bass situation has been the worst.

From: TOM O'BRIEN [<mailto:tomobrien7693@comcast.net>]

Sent: Friday, February 10, 2017 4:01 PM

To: Max Appelman <mappelman@asmfc.org>

Subject: Striped Bass Quota

Sir

Please do not increase the quota for striped bass this year. In order for bass to once again become a sustainable fishery, it is imperative that we continue to give them relief from over fishing. Increasing quotas at this time, would be short sighted and nothing but a step backwards and a reversal of the positive steps that were taken last year. Please continue to work towards increasing the stock and achieving spawning target levels.

Thank you for your time , Tom O'Brien

From: Will Perry [<mailto:willw.perry@gmail.com>]
Sent: Thursday, March 02, 2017 12:41 PM
To: Max Appelman <mappelman@asmfc.org>
Subject: Striped Bass Management Concern

Sir,

Please do not increase the quota for striped bass this year. In order for bass to once again become a sustainable fishery, it is imperative that we continue to give them relief from over fishing. Increasing quotas at this time, would be short sighted and nothing but a step backwards and a reversal of the positive steps that were taken last year. Please continue to work towards increasing the stock and achieving spawning target levels.

Thank you for your time,
William Perry
Boston, MA

--

Will Perry
willw.perry@gmail.com
203.994.1222

From: ypacheco1 [<mailto:ypacheco1@comcast.net>]

Sent: Sunday, February 12, 2017 12:00 PM

To: Max Appelman <mappelman@asmfc.org>

Subject:

Sir

Please do not increase the quota for striped bass this year. In order for bass to once again become a sustainable fishery, it is imperative that we continue to give them relief from over fishing. Increasing quotas at this time, would be short sighted and nothing but a step backwards and a reversal of the positive steps that were taken last year. Please continue to work towards increasing the stock and achieving spawning target levels.

Thank you for your time



Atlantic States Marine Fisheries Commission

1050 N. Highland Street • Suite 200A-N • Arlington, VA 22201
703.842.0740 • 703.842.0741 (fax) • www.asmfmc.org

MEMORANDUM

January 13, 2017

To: Atlantic Striped Bass Management Board
From: Atlantic Striped Bass Stock Assessment Subcommittee
RE: Draft Terms of Reference for the 2018 Atlantic Striped Bass Benchmark Stock Assessment and Assessment Timeline

The next Atlantic striped bass benchmark stock assessment is scheduled to be completed in the fall of 2018. The Atlantic Striped Bass Stock Assessment Subcommittee has recommended the Board consider the following terms of reference for the assessment and peer-review panel:

Terms of Reference for Stock Assessment Process:

1. Investigate all fisheries independent and dependent data sets, including life history, indices of abundance, and tagging data. Discuss strengths and weaknesses of the data sources.
2. Estimate commercial and recreational landings and discards. Characterize the uncertainty in the data and spatial distribution of the fisheries. Review new MRIP estimates of catch, effort and the calibration method if available.
3. Use an age-based model to estimate annual fishing mortality, recruitment, total abundance and stock biomass (total and spawning stock) for the time series and estimate their uncertainty. Provide retrospective analysis of the model results and historical retrospective. Provide estimates of exploitation by stock component and sex, where possible, and for total stock complex.
4. Use tagging data to estimate mortality and abundance, and provide suggestions for further development.
5. Update or redefine biological reference points (BRPs; point estimates or proxies for B_{MSY} , SSB_{MSY} , F_{MSY} , MSY). Define stock status based on BRPs by stock component where possible.
6. Provide annual projections of catch and biomass under alternative harvest scenarios. Projections should estimate and report annual probabilities of exceeding threshold BRPs for F and probabilities of falling below threshold BRPs for biomass.
7. Review and evaluate the status of the Technical Committee research recommendations listed in the most recent SARC report. Identify new research recommendations. Recommend timing and frequency of future assessment updates and benchmark assessments.

Terms of Reference for External Peer Review:

1. Evaluate the thoroughness of all fisheries independent and dependent data sets, including life history, indices of abundance, and tagging data. Evaluate the strengths and weaknesses of the data sources.
2. Evaluate the methods used to estimate commercial and recreational landings and discards. Evaluate the uncertainty in the data and spatial distribution of the fisheries. Evaluate new MRIP estimates of catch, effort and the calibration method if available.
3. Evaluate the methods and models used to estimate annual fishing mortality, recruitment, total abundance and stock biomass (total and spawning stock) for the time series and evaluate their uncertainty. Evaluate retrospective analysis of the model results and historical retrospective. Evaluate estimates of exploitation by stock component and sex, where possible, and for total stock complex.
4. Evaluate estimates of mortality and abundance derived from tagging data, and provide recommendations for further development of the tagging models.
5. Evaluate the choice of reference points and the methods used to estimate them. Recommend stock status determination from the assessment, or, if appropriate, specify alternative methods or measures.
6. Evaluate annual projections of catch and biomass under alternative harvest scenarios. Projections should estimate and report annual probabilities of exceeding threshold BRPs for F and probabilities of falling below threshold BRPs for biomass.
7. Review and evaluate the status of the Technical Committee research recommendations listed in the most recent SARC report. Identify new research recommendations. Recommend timing and frequency of future assessment updates and benchmark assessments.
8. Prepare a peer review panel terms of reference and advisory report summarizing the panel's evaluation of the stock assessment and addressing each peer review term of reference. Develop a list of tasks to be completed following the workshop. Complete and submit the report within 4 weeks of workshop conclusion.

2018 Atlantic Striped Bass Benchmark Stock Assessment Draft Schedule

| Meeting Description | Meeting Dates and Deadlines |
|---|-----------------------------|
| Data Workshop Planning Call/Webinar - Discuss Data Needs & TOR's | ✓ |
| Board Approval of TOR's | May 2017 |
| Initial Data Submission for Assessment through 2016 | June 15, 2017 |
| Data Workshop | August 2017 |
| Assessment/Modeling Workshop I | Nov/Dec 2017 |
| Modeling Workshop II | July 2018 |
| SASC to approve stock status determination | Mid-Sept. 2018 |
| Technical Committee to discuss assessment findings & approve report | End of Oct. 2018 |
| Peer Review Workshop (external) | early Dec. 2018 |
| Board Review | February 2019 |

Atlantic States Marine Fisheries Commission

Atlantic Menhaden Management Board

May 9, 2017
3:30 – 5:45 p.m.
Alexandria, Virginia

Draft Agenda

The times listed are approximate; the order in which these items will be taken is subject to change; other items may be added as necessary.

1. Welcome/Call to Order (*R. Ballou*) 3:30 p.m.
2. Board Consent 3:30 p.m.
 - Approval of Agenda
 - Approval of Proceedings from February 2017
3. Public Comment 3:35 p.m.
4. Consideration of Hilborn et al. 2017 Paper for Technical Review 3:45 p.m.
(*R. Ballou*) **Possible Action**
5. Biological Ecological Reference Point Work Group Progress Report (*S. Madsen*) 4:00 p.m.
6. Update on Draft Amendment 3 (*M. Ware*) **Possible Action** 4:05 p.m.
 - Review Allocation Workgroup Recommendations
 - Provide Guidance/Additional Input to Plan Development Team Regarding Management Options
7. New York Participation in Episodic Events Program (*J. Gilmore*) 5:10 p.m.
Possible Action
8. Provide Guidance to Technical Committee Regarding Stock Projections 5:20 p.m.
 - Review Stock Projection Methodology (*J. McNamee*)
9. Consider Approval of 2017 FMP Review and State Compliance Reports 5:40 p.m.
(*M. Ware*) **Action**
10. Other Business/Adjourn 5:45 p.m.

The meeting will be held at the Westin Alexandria, 300 Courthouse Square, Alexandria, Virginia; 703.253.8600

MEETING OVERVIEW

Atlantic Menhaden Management Board Meeting
Tuesday-May 9, 2017
3:30 – 5:45 p.m.
Alexandria, Virginia

| | | |
|---|--|--|
| Chair: Robert Ballou (RI) Assumed Chairmanship: 05/16 | Technical Committee Chair: Jason McNamee (RI) | Law Enforcement Committee Representative: Capt. Kersey (MD) |
| Vice Chair: Russ Allen (NJ) | Advisory Panel Chair: Jeff Kaelin (NJ) | Previous Board Meeting: February 1, 2017 |
| Voting Members: ME, NH, MA, RI, CT, NY, NJ, PA, DE, MD, PRFC, VA, NC, SC, GA, FL, NMFS, USFWS (18 votes) | | |

2. Board Consent

- Approval of Agenda
- Approval of Proceedings from February 2017

3. Public Comment – At the beginning of the meeting public comment will be taken on items not on the agenda. Individuals that wish to speak at this time must sign-in at the beginning of the meeting. For agenda items that have already gone out for public hearing and/or have had a public comment period that has closed, the Board Chair may determine that additional public comment will not provide additional information. In this circumstance the Chair will not allow additional public comment on an issue. For agenda items that the public has not had a chance to provide input, the Board Chair may allow limited opportunity for comment. The Board Chair has the discretion to limit the number of speakers and/or the length of each comment.

4. Hilborn et al. 2017 Paper (3:45-4:00 p.m.) Possible Action

Background

- In April 2017, Hilborn et al. published a paper regarding harvest policies for forage fish. Given the potential relevance of this paper to Draft Amendment 3, Board members have requested a discussion of this paper (**Briefing Materials**).

Board actions for consideration at this meeting

- Task the BERP Workgroup to review Hilborn et al. (2017)

5. BERP Workgroup Progress Report (4:00-4:05 p.m.)

Background

- The Board has tasked the BERP Workgroup to develop Ecosystem Based Reference Points (ERPs) for Atlantic Menhaden.
- The BERP Workgroup met on April 10-11 to review the multi-species statistical catch-at-age model.

Presentations

- BERP Workgroup progress report by S. Madsen

6. Update on Draft Amendment 3 (5:05-5:10 p.m.) Possible Action**Background**

- In February 2017, the Board tasked the PDT with developing draft Amendment 3. The PDT met via conference call on February 22nd, March 31st, and April 26th to work on a preliminary draft of Amendment 3.
- The Allocation Workgroup met via conference call on April 17th to discuss the allocation options in Draft Amendment 3 and provide recommendations to the Board on ways to hone in on the options currently included in the document.

Presentations

- Update on development of Draft Amendment 3 by M. Ware (**Supplemental Materials**)
- Summary of Allocation Workgroup recommendations by M. Ware (**Supplemental Materials**)

7. New York Participation in Episodic Events Program (5:10-5:20 p.m.) Possible Action**Background**

- In May 2016, the Board approved New York to harvester under the episodic events program and capped the state at 1 million pounds for 2016.
- New York is again seeing a high abundance of menhaden in state waters and anticipates reaching their quota shortly. They would like to harvest under the episodic events program.

Board actions for consideration at this meeting

- Approve New York to participate in the episodic events program until implementation of Amendment 3

8. Provide Guidance to TC Regarding Stock Projections (5:20 -5:40 p.m.)**Background**

- The Board established a 200,000 mt TAC for the 2017 fishing year.
- The Board must discuss what projections are needed to inform the TAC setting discussion for 2018.

Presentations

- Review of stock projection methodology by J. McNamee

9. Fishery Management Plan Review (5:40 -5:45 p.m.) Action**Background**

- State compliance reports were due on April 1, 2017.
- The PRT reviewed and compiled the annual FMP Review.
- New Hampshire, Pennsylvania, South Carolina, Georgia, and Florida have requested *de minimis* status.

Presentations

- Overview of the 2017 Fishery Management Plan Review by M. Ware (**Briefing Materials**)

Board actions for consideration at this meeting

- Accept the 2017 Fishery Management Plan Review and approve *de minimis* requests.

10. Other Business/Adjourn

**DRAFT PROCEEDINGS OF THE
ATLANTIC STATES MARINE FISHERIES COMMISSION
ATLANTIC MENHADEN MANAGEMENT BOARD**

The Westin Alexandria
Alexandria, Virginia
February 1, 2017

These minutes are draft and subject to approval by the Atlantic Menhaden Management Board
The Board will review the minutes during its next meeting

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Adjournment..... 52

INDEX OF MOTIONS

1. **Approval of Agenda** by Consent (Page 1).
2. **Approval of Proceedings of October 2016 by Consent** (Page 1).
3. **Move to continue the management of cast nets under the bycatch provision until implementation of Amendment 3** (Page 53). Motion by Jim Estes; second by Mark Alexander. Motion passes unanimously (Page 53).
4. **Move to appoint Vincent Balzano to the Menhaden Advisory Panel (Page 53)**. Motion approved by consensus (Page 53).
5. **Motion to adjourn** by Consent (Page 54).

ATTENDANCE

Board Members

| | |
|--|--|
| Terry Stockwell, ME, proxy for P. Keliher (AA) | Craig Pugh, DE, proxy for Rep. Carson (LA) |
| Steve Train, ME (GA) | Roy Miller, DE (GA) |
| Cheri Patterson, NH, proxy for D. Grout (AA) | Rachel Dean, MD (GA) |
| G. Ritchie White, NH (GA) | Dave Blazer, MD (AA) |
| Dennis Abbott, NH, proxy for Sen. Watters (LA) | Ed O'Brien, MD, proxy for Del. Stein (LA) |
| Sarah Ferrara, MA, proxy for Rep. Peake (LA) | Rob O'Reilly, VA, proxy for J. Bull (AA) |
| Raymond Kane, MA (GA) | Kyle Schick, VA, proxy for Sen. Stuart (LA) |
| Nichola Meserve, MA, proxy for D. Pierce (AA) | Michelle Duval, NC, proxy for B. Davis (AA) |
| Eric Reid, RI, proxy for Sen. Sosnowski (LA) | David Bush, NC, proxy for Rep. Steinburg (LA) |
| Robert Ballou, RI, proxy for J. Coit (AA) | W. Douglas Brady, NC (GA) |
| David Borden, RI (GA) | Malcolm Rhodes, SC (GA) |
| Mark Alexander, CT (AA) | Robert Boyles, Jr., SC (AA) |
| Steve Heins, NY, proxy for J. Gilmore (AA) | Patrick Geer, GA, proxy for Rep. Nimmer (LA) |
| Emerson Hasbrouck, NY (GA) | Kathy Knowlton, GA, proxy for S. Woodward (AA) |
| John McMurray, NY, proxy for Sen. Boyle (LA) | Jim Estes, FL, proxy for J. McCawley (AA) |
| Adam Nowalsky, NJ, proxy for Asm. Andrzejczak (LA) | Martin Gary, PRFC |
| Loren Lustig, PA (GA) | Derek Orner, NMFS |
| Andy Shiels, PA, proxy for J. Arway (AA) | Sherry White, USFWS |
| John Clark, DE, proxy for D. Saveikis (AA) | |

(AA = Administrative Appointee; GA = Governor Appointee; LA = Legislative Appointee)

Ex-Officio Members

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|--|-----------------------------------|
| Jason McNamee, Technical Committee Chair | Jeff Kaelin, Advisory Panel Chair |
|--|-----------------------------------|

Staff

| | |
|------------|---------------|
| Bob Beal | |
| Toni Kerns | Shanna Madsen |
| Katie Drew | Megan Ware |

Guests

| | | |
|--------------------------------|-------------------------------|----------------------------|
| Jennie Bichrest, CCA | Ken Hinman, Wild Oceans | Jim Rogers, Deltaville, VA |
| Benson Chiles, Chiles Consult. | Jimmy Kellum, Kellum Maritime | Tera Scott, NOAA |
| Robert Crockett, Richmond, VA | Aaron Kornbluth, PEW | David Sikorski, CCA |
| Jeff Deem, VMRC | Wilson Laney, USFWS | Jack Travelstead, CCA |
| Shaun Gehan, Omega Protein | Ben Landry, Omega Protein | John Whitehead, |
| Matt Gates, CT DEEP | Arnold Leo, E. Hampton, NY | Kate Wilke, TNC |
| Joseph Gordon, PEW | Nicole Lengyel, RI DEM | |
| Zak Greenburg, PEW | Chris Moore, CBF | |
| Marin Hawk, MSC | Jonathan O'Connor, MSBA | |
| Peter Himchak, Omega Protein | Patrick Paquette, MSBA | |

The Atlantic Menhaden Management Board of the Atlantic States Marine Fisheries Commission convened in the Edison Ballroom of the Westin Hotel, Alexandria, Virginia, February 1, 2017, and was called to order at 2:52 o'clock p.m. by Chairman Robert Ballou.

CALL TO ORDER

MR. ROBERT BALLOU: Welcome, I would like to call this meeting of the Menhaden Management Board to order. My name is Bob Ballou; I have the honor of serving as board Chair.

APPROVAL OF AGENDA

CHAIRMAN BALLOU: Our first item on the agenda is the agenda itself. Does any member of the board have any recommended additions to the agenda? Seeing none; is there any objection to approving the agenda as proposed? Seeing none; the agenda stands approved by consent.

APPROVAL OF PROCEEDINGS

CHAIRMAN BALLOU: The next item is our meeting minutes, the proceedings from the board's last meeting held on October 26, 2016. Are there any recommended changes to the meeting minutes? Seeing none; is there any objection to approving the minutes as proposed? Seeing none; the minutes stand approved by consent.

PUBLIC COMMENT

CHAIRMAN BALLOU: Next on our agenda is public comment. This is an opportunity for anyone from the public who would like to comment on any issue that is not on today's agenda to do so. We have a signup sheet, but we do not have anyone signed up; so I will ask if there are any hands. But before I do so, I would like to welcome Lynn Fegley to the microphone, and I know Lynn has a few words that she would like to share. Lynn.

MS. LYNN FEGLEY: I am here; I wanted to offer a brief word of remembrance and appreciation for one of our Maryland constituents. He passed away shortly before Christmas; Captain Jim Price died just after a long and heroic battle with cancer. Jim was very active in menhaden, both at the board level and at the science level.

Many of you may remember him as the director of the Chesapeake Ecological Foundation; which he founded. We didn't have many board meetings go by without comment from Jim. He was a tireless advocate for the need to manage forage fish in a multispecies context. In the state of Maryland he was a legendary recreational striped bass fisherman.

Sometime in the 1990s he began to observe what appeared to be declining health of striped bass, and he attributed that to declining numbers of menhaden; and he demanded attention to this issue. For any of you who spent time in conversation, you know exactly what I mean by demanded. Jim was not a politician, he did not mince words, and he never hesitated to tell you exactly what he thought of you.

But he was different, because Jim didn't just talk; Jim did, and he did a lot. He went out with his wife with his own money and collected thousands of striped bass; analyzed their stomachs, collected data. He presented results to the scientists. He often found himself at odds, a businessman by training, he was a businessman. He often found himself at odds with our ASMFC scientists. But that didn't hold him back and that didn't daunt him; and he steadfastly continued, improving his methods, gathering data, and refining his ideas.

When he was diagnosed I understand that the doctors didn't give him long to live; yet he survived for years. A friend of his said at his funeral that he was just too damned busy to leave; his passion kept him going. I believe that Jim taught a lot of us many things, not only about the feeding behavior of striped bass in

the Chesapeake Bay, but also about how to take the bull by the horns; about being an active participant in finding a solution, and about perseverance. I just want to take this moment to thank him for his legacy, and you for your time. Thanks.

CHAIRMAN BALLOU: Thank you, Lynn, and I know I speak for everyone on the board when I say how appreciative we are of Captain Price's contributions to our work and our heartfelt condolences for his loss. Is there anyone else from the public that would like to address the board on any issue that is not on our agenda? Terry Stockwell.

MR. TERRY STOCKWELL: I'm not in the public, but I would like to take this opportunity on the behalf of the state of Maine to thank North Carolina and the Commonwealth of Virginia for generously bailing the state of Maine out by transferring some of your unused 2016 commercial quota.

**REVIEW OF THE SOCIOECONOMICS STUDY OF
THE ATLANTIC MENHADEN
COMMERCIAL FISHERY**

CHAIRMAN BALLOU: Are there any other comments? Seeing none; we will move on to Item 4 on our agenda. This is a review of the Socioeconomics Study of the Commercial Menhaden Fishery; undertaken by Dr. John Whitehead from Appalachian State University, and Dr. Jane Harrison from North Carolina Sea Grant.

As a quick reminder, this study has been undertaken at the behest of the board, and in close coordination with the Commission's Committee on Economics and Social Sciences for the purpose of characterizing the commercial menhaden fishery along the east coast; and helping to inform the development of Amendment 3.

The study as I understand it, and as I'm sure we're about to hear more on, is largely

complete and although the full report is still under development. The PIs have put together an Executive Summary, which is in your meeting materials; and they are here to brief the board on the study results.

We have allocated a little less than an hour for this agenda item, but my understanding from talking to Dr. Harrison is that they plan to present for about a half an hour, and then leave about 15 minutes or so for questions and answers. With that I will turn the floor over to Dr. Harrison. Thank you.

DR. JANE HARRISON: Thanks Bob, and thank you all for having myself and John here this afternoon. We're very happy to get to share some of the study results with you; and to be able to answer some of your questions. Without further ado I am going to turn it to our first slide. Just to remind you all what we said we would do, hopefully we have accomplished these goals. The overall aim of the study was to characterize the socioeconomic dimensions of fishery stakeholders for Atlantic menhaden. I'm going to go over primarily the industry perspectives that we heard; and then I'm going to turn it over to John and he will speak to some of the economic impacts of the menhaden industry. Again, this is for both the reduction and the bait industries. Then he will also speak to a survey we conducted with the public; so trying to understand their perceptions of menhaden, how they're managed, concerns.

Really this study we're trying to understand diverse stakeholder interest, the public at large, and the industry specifically. The role that I played in the study was to gather industry perspectives up and down the Atlantic coast. To those aims I worked with several research associates to collect both quantitative and qualitative data; so these are original, primary data sources through surveys with commercial menhaden fishermen and bait dealers; as well as interviews with menhaden fishermen, bait

dealers, industry, management and the end users of menhaden.

When you think about where this fish comes from, out of the sea. Who is catching it, who are they selling it to, who's processing it, who's distributing it, who's buying it for what end? We really tried to look at the entire supply chain related to the Atlantic menhaden; again for both the commercial reduction industry and the bait industry.

From my look into the literature, I really couldn't find a study that had done that kind of work in the past. In the surveys data that was really primarily used to validate the interview data to make sure that the interviews we were conducting really reflected the entire industry; as well as to validate some of the secondary data sources that we used for our economic impact analyses.

The survey data, we had contact information for about 2,000 possible menhaden fishermen and bait dealers up and down the Atlantic Coast; this is really just seven states where the industry has a sizeable role. Now many of these potential or possible fishermen and bait dealers, we got a lot of surveys returned. We didn't have good addresses; we didn't have good e-mail addresses.

Some fishermen, they used to fish for menhaden; it was 10 years ago, they're not doing it any longer. It is hard to say what our total sample was here. We got the contact information from the various Division of Marine Fisheries and Departments of Natural Resources, or equivalent agencies in each state.

In the end we had about 106 completed surveys, so the response rate wasn't great; if you consider your total population to be 2,000. But my guess is our total population is going to be under 1,500. It could be even as small as 1,000; hard to say with some of the returns we got from the survey.

But what I will say in terms of the data quality, I feel like we got a very good representation across the different states, and if you look at the respondents from different states, you know we got more respondents from the states where the industry has a bigger presence; so where there are more fishermen and bait dealers where the state quotas are higher.

I feel pretty good about that. I'm not going to go into the survey results too much; again mostly those were used to validate some of our other data sources. I'm just going to point you to one table though from the survey results, and this is just looking at some of the issues that are important to menhaden fishermen and bait dealers. On the higher side, so these are one and two being extremely important to very important; we saw that health of menhaden and habitat, the state quotas and gear restrictions are some of the most important issues to our industry members. Now things that were not as important or elements not as important were competition among fishermen from other states, crew and labor issues, and competition among local fishermen. Those issues were moderately to slightly important, so more on the three to four range. This is just to give you kind of a sense of the concerns that they're thinking about; the issues that are important to them in this fishery.

I'm going to focus here really on the interview data, and when you look at the Executive Summaries that were passed out, and they should be back in the room, I believe. You can follow along with me if you like. With the interview data, this was a pretty short turnaround and I'm pleased how many interviews we were able to conduct.

We went around, again in these seven different states, conducted interview; 42 with menhaden fishermen and bait dealers. Then we also conducted additional interviews with the management of various menhaden businesses, not necessarily those catching the fish but

certainly the reduction oil and meal facility in Reedville; and some of the larger bait distributors up and down the coast.

We also talked to end users, so we interviewed those who were buying reduction oil and meal products. We interviewed lobstermen, we interviewed crabbers. Now they don't show up in this chart here, this chart is just reflecting the fishermen and bait dealers, but we feel we did a pretty good job at reaching data saturation. Overall as the interviews went along, we ceased to hear new themes. We started to hear a lot of repetition of themes; and I feel pretty confident that the results we have are a pretty good reflection of what the industry looks like and the concerns of the industry. I'm going to go on a few themes here, discuss some of the themes from the data, and I can tell you more about how we analyze that data if you wish.

It is kind of a process of coding as we call it in qualitative data analysis. Looking for particular codes in the data that come from the research questions asked, and the research questions were really formulated from the needs that you all laid out in the RFP. Our interview instrument, our survey instrument, were refined and revised by board members, by industry members; they were piloted, so that we would get the kind of information that might be useful to you.

Then we also came up with some themes from the data that really came from the fishermen and the bait dealers, those we interviewed. It came from them, so there might be some ideas that we didn't even ask about; but these were semi-structured interviews so we tried to allow folks to tell us too what was important, or issues that they wanted to make sure this board is aware of.

The themes I'm going to talk about initially are primarily related to market changes the industry has seen; as well as state quota impacts from the change in 2013. First,

increase stock, we heard that across the board; fishermen, bait dealers in every state are seeing increased stocks, healthy stocks of menhaden.

We also heard there has been an increase in bait demand, an increase in demand for oil and meal products, and then the last three topics you'll see you could kind of think of these themes as contradictory. But they really just reflect, I would say the diversity in this industry and how folks were affected from the quota impacts. Some in the industry had no personal impact from the changes in 2013. Many did note disparate state impacts, and then some noted decreased landings and depressed incomes. We found that generally those in the smaller scale operations, you know zero, one, two employees, didn't have as much personal impact; whereas the midscale, the larger scale operations did.

Increased stock, like I said, we heard across the board the fishermen, the bait dealers, they see the stocks as healthy; they are not overfished. Some of the reasons that they contended were because of the cyclical nature of fisheries generally, ups and downs that are always going on; warming of waters.

There are folks that are seeing the fish coming up north, coming up to Maine waters that hadn't been seen in many years. Then some did point to the 20 percent reduction of the TAC in 2013 as also having an impact. In this video here, I'm going to see if I can play it. I guess maybe you will need to play it there.

This is from a fish kill in Shinnecock Canal, New York. This was an interviewee from New York. He sent me this video about a week after I was there. I am sure some of you heard of this. You know these fish kills have been taking place, and if I look at that from afar, I almost think it looks like ice; but it's really fish up there.

I think whale watching was going pretty well this fall, but a lot of fish have been coming in,

coming into the bays, into the canals, escaping predators; and again the fishermen noted that this was more evidence of very healthy stocks. The next slide, this theme is related to increase in bait demand.

Many fishermen and bait dealers alike were looking for new markets for their bait. They really saw some possibilities out there, especially from the demand coming from the northern New England states. Some of the increase in bait demand was related to bait shortages; so like herring, especially for lobstermen up north.

They spoke of very few bait alternatives. Some of the bait dealers in Maine, they talked about getting bait from Iceland, spending a lot of money to bring it from New Jersey, from the other Mid-Atlantic states, and having some issues with getting the fresh bait that they want for other fishing industries.

Our interviewees also spoke to the increase in demand for oil and meal products. We interviewed with several different companies, companies that produce animal feeds, aquaculture feeds, and pet food. I realize that my dog actually is likely eating menhaden oil in his dog food; and he looks good, so it's working well for him.

It is very kind of fascinating learning about the market for these fish oil and meal products from talking to these interviewees who use these products. They don't have a lot of other substitutes available, so the main substitutes are anchovies from Chili and Peru. There are some other fish available, but overall demand has gone up because there is not as much consistency and availability of some of these other fish oil and meal products globally.

It is very much a global market. The menhaden reduction oil and meal products have been very consistent in quality and in high demand. Prices have gone up. That seems to be a continuing

trend with global population growth and need for quality protein sources. Now we did hear from many fishermen that have not experienced any personal impact due to the state quotas; and this is generally from fishermen that were small scale in nature. They maybe worked by themselves, they might have one or two part-time, maybe a full-time employee.

They tend to use gill and pound nets, perhaps trap nets in Rhode Island, and they're generally satisfied by the bycatch allowance; so about 6,000 pounds per day. In our interviewees, we characterized them as small, medium and large scale; and we had about a third in each of those categories.

We weren't necessarily looking to have a third in each, but that is just kind of how it turned out. When I'm looking at kind of numbers from the interviews, which is a little suspect, as it is not necessarily generalizable; but it seemed like about a third of those that we talked to were satisfied. Their 6,000 pounds a day is working for them.

Those are generally fishermen and bait dealers who catch or sell a mix of species. They are not relying solely or predominantly on menhaden for their operations. Now we did hear from across the board there was concern about disproportionate loss of TAC; so some states very much being impacted negatively by the 2013 state quotas, because they're based on reported historic landings.

Some states felt, some fishermen and bait dealers from those states felt that they had lost out unfairly; especially the small scale fishermen and bait dealers in New York, Maryland and New Jersey. They discussed kind of a culture of under reporting in those areas that also didn't help them in the state quota allocation process.

Now finally, related to state quotas, we did hear over and over again, especially from the medium and large scale fishermen and bait dealers that they have experienced significant decreased landings; and depressed incomes because of the state quota change. In some cases that certainly contributed to layoffs, as well as shorter seasons; so converting year round jobs to seasonal positions, you know high job turnover in some states where businesses cannot keep employees because of this new kind of economic situation for their business.

Some of the large scale operations also discussed the concern that managing the quota changes; it can't simply be done by reducing the labor force. There are significant fixed costs in their businesses with the processing facilities, and not just on the reduction side but also on the bait side. That just continues to be a concern.

There was also much discussion about negative impacts on both fishing related businesses and non-fishing related businesses; so some of the multiplier effects from these state quota impacts. Now I did ask some questions about their fishing community in general. Some of the themes that came out again are going to seem contradictory; but it just reflects the diversity of views from these fishermen.

The fishermen and the bait dealers spoke about commercial fishing being key, being very important to their local communities; and just as often we heard that commercial fishing is on the decline, and you know there is not much there. It really seemed to vary again where we heard commercial fishing key from those in the larger scale operations, in communities where commercial fishing continues to be vibrant; and it is a source of well-paying jobs in these communities. Many of these fishermen, I mean I talked to so many fishermen that are fifth generation. This is an intergenerational occupation; they have very strong familial and social bonds with one another.

They spoke of the economic impacts of their business, so not again just their own employees but the purchasing power that they have in the community, all the other ancillary businesses that are impacted. Finally they spoke of kind of a fishing heritage and the culture around working waterfronts; being a tourist draw, so related to the tourism economy, and certainly some of the fishing products being key exports in some states.

In Maine, for example with lobster and the importance that menhaden plays to make that a cost effective business. Then finally we heard in many communities, commercial fishing is on the decline as well. This was more frequently noted by small scale operations who discussed regulatory restrictions that have made it very difficult to continue fishing.

The fact that there aren't well paying jobs out there if you're not in fishing; and even if you are those are also few and far between. My guess is through these themes I have not necessarily highlighted anything you all don't already know. But at least it is laid out there, hopefully in an objective fashion. I'm going to turn it over now to John, to speak to some of the industry economic impacts in recent years.

DR. JOHN WHITEHEAD: Thanks Jane, and thanks everybody for having us. This first bullet point is a quote from our proposal; and we were hoping to get a bunch of economic data, revenues cost, landings, and that data just isn't out there. Instead of pursuing the economic efficiency analysis that we proposed, we're focusing more on economic impacts.

The data we did receive, we have three datasets, county level annual landings, and then annual landings with disposition; and then state level landings. There was a miscommunication and I don't have all my slides loaded. Let me go through this quickly and we'll see, gosh. All right let me go through here real quick and see what we have and see what I don't have.

Okay, I apologize. Yes, they're here. There is just some stuff that I took out that I didn't want to talk about; but I'll mention it briefly. This is from the data that we do have. There is a statistical analysis, it is in the Executive Summary, and I took it out because this last slide, the effect of tons landed on price is very low. We're proceeding with an assumption that landings do not affect the bait fishery ex-vessel price.

The economic impact model that we're using is from the Bureau of Economic Analysis. The model is maintained by the BEA, and is called the RIMS II model, the Regional Input-Output Modeling System. What you do is you order multipliers from the BEA by industry sector. We've done that for the fishing sector, for each of the Atlantic states, and also Northumberland County.

We received Type 1 and Type 2 multipliers. Type 1 multipliers include direct and indirect economic impacts; where direct impacts accounts for the first round of inputs purchased by the fishing industry. Then when the industry that sells inputs to the fisheries buys things that is the indirect impact. The Type 2 multipliers include those two effects as well as the money spent by the employees in the industry. The Type 2 multipliers are always going to be larger than Type 1 multiplier and they're inclusive. This is just an example of what the multipliers look like. This is Sector 11-114000, fishing, hunting and trapping and we have the final demand output earnings and employment multipliers for all of the states.

For the economic impact analysis in the bait sector, we're measuring the direct effect in the bait sector as the ex-vessel price; that letter P there with the bar on it. The bar is our assumption that the price is fairly constant with landings; and we multiply that by a markup factor. Then we multiply those gross revenues by the change in the TAC, and then multiply all

that by the Type 1 and then the Type 2 multiplier.

The markup that they were using, we're uncertain about what the markup is, so we're using a range. The National Marine Fisheries Service in-plan model, which is an alternative economic impact model, uses a markup of 63 percent for wholesalers and distributors; and that number is from some results from Alaska.

In the survey that we've done with the bait dealers and fishermen, we've estimated a markup of 356 percent for menhaden. What I'm going to present includes the markup that we've computed ourselves, but the report will include sensitivity analysis. This is just some examples of the calculations.

For 2016 the Virginia bait landings are 33.5 million pounds, and the ex-vessel price is 12.5 cents per pound. These are the numbers from the National Marine Fisheries Service. The direct effect is 4.6 million and then the numbers in bold there are the multiplier. The output is 5.6 million, earnings from people as a result of that output is 1.7 million, and the number of jobs as a result of that output is the employment effect, and that is 94 jobs.

Here is the economic impact analysis for the 6.45 percent increase in the TAC for 2017. The result you'll see is that most of the impact flows to New Jersey and Virginia. The overall output effect is 3.5 million with one million in earnings and 42 jobs. Here is the same analysis, the first line for the 6.45 percent change in TAC; and then a simulation of the TAC going from a 10 percent increase up to a 30 percent increase.

As you go from 10 to 30, the output effect goes from 5.4 million to 16.1 million. Earnings go from 1.6 million to 4.7 million, and then employment goes from 66 jobs to almost 200 jobs. The next slide illustrates, it was supposed to illustrate the Type 2 results; including the induced effects. But I failed to update the last

three lines, so you'll see that it's the same, so I'll move on.

In the reduction sector we began with the Kirkley et.al Virginia Marine Resources Commission 2011 study, where Jim Kirkley has developed an economic impact model using in-plan for Northumberland County and the rest of Virginia for the menhaden fishery. This is his reproduction of his Table 5.4 and 5.5, where the output effect is roughly revenues generated by the final demand from Omega Protein.

For our analysis we have scaled the 2011 numbers up to 2015 landings, an increase of about 5 million pounds; and we've increased the dollar values by the Consumer Price Index. The baseline economic impact for Northumberland County, in terms of the Type 1 multiplier would be the sum of the direct and indirect values there; and so we've got about 300 jobs, and 67 million in output and about 10 million in earnings. Then the rest of Virginia adds to those numbers, but most of the impacts were to Northumberland County. Okay so doing the same thing, those were the baseline results, increasing the TAC by 6.4 percent for Northumberland County.

The model suggests that that would lead to 77 additional jobs with the Type 1 multiplier and 79 with the Type 2. The output effect would be 4.5 million, with a Type 1 multiplier, and earnings would be 1.2 million. The Type 2 multiplier adds a little bit to that for Northumberland County and then the last two columns here for the rest of Virginia those are additional impacts; as a result of the 6.5 percent increase.

This table again shows the effects in Northumberland County for going from a 10 percent increase in the TAC to a 30 percent increase in the TAC. Output effects go from 7 to 21 million, earnings almost a 2 million increase to almost 6 million increase, and then employment 119 jobs up to maybe 358. The

next two slides I'm going to bounce through quickly.

It's just Type 1, the same analysis Type 1 for the rest of Virginia, Type 2 for Northumberland County, and Type 2 for the rest of Virginia. The pattern of results is the same as I've described before. We also conducted a survey of the public using Survey Sampling Internationals panel. For this analysis we again looked at increases in the TAC, and to see what the public thought about this.

We're also considering ecosystem-based fisheries management in the survey. I'll describe how that worked. The sampler is about 2,000 individuals with 400 in some from both New Jersey and Virginia; and about 200 from each of the other Atlantic states. Just some preliminary questions to go through, not surprising most folks that we talked to didn't know anything about the ASMFC or menhaden.

But they did think that when we described the impact of the menhaden commercial fishery on the economy, and we gave them a snapshot of ex-vessel landings and revenues; and most people think it is either somewhat important or very important. We described results from the most recent stock assessment that menhaden is not overfished.

But we did ask them if they were concerned about overfishing with that information, and most of them are still somewhat concerned or very concerned about overfishing. Then most people think it's important. We described what managing fisheries at the ecosystem level is all about, and most of them think that that is somewhat important or important.

We presented people with alternative quotas and different scenarios; and we asked them if they would vote for or against an increased quota. On the right is like a stylized choice question that we presented to people. On the

left describes the different variations that we included, so each respondent got six scenarios.

We varied the price, the ex-vessel price. We varied the change in the TAC from 10 to 20 to 30 percent. We talked about increases and decreases in jobs, and then we expressed uncertainty about the impacts of alternative TACs on gamefish, shorebirds and water quality; but then told folks, imagine that gamefish would either decrease, there would be no change, or they would increase, same for shorebirds and water quality. We varied that and asked them how they would vote. This is a regression analysis for the increase scenario. The numbers to focus on are the ones in the northwest part of this picture. The results are pretty much as we would expect as ex-vessel revenue increases or jobs increase from increasing the TAC; survey respondents are more likely to vote in favor of increasing the TAC.

If water quality would get worse, if gamefish populations would decline, or shorebird populations would decline then people are less likely to vote in favor of increasing the TAC. In terms of a social choice mechanism, if 50 percent of the people vote for the referendum then it's a good idea or people are mostly in favor of it.

We've done some simulations along that. If there are no water quality, gamefish or shorebird effects, people are in favor of increasing the TAC. If there are negative effects for all three of those attributes then people are not in favor of an increase in the TAC. This is just a way of summarizing the results.

You can think about the tradeoffs people are willing to accept to receive more or less of water quality, gamefish or water birds. The most important characteristic for our survey respondents was water quality. They are willing to give up 13 million dollars in ex-vessel

revenues in order to avoid a decrease in water quality.

They are willing to give up 914 jobs in the commercial fishing industry to avoid a decrease in water quality. Similar for the decrease scenario, we presented the same type of policy question; in this case respondents are voting in favor or against a decrease in the menhaden TAC, and the hypothetical is that if the TAC falls then water quality might increase, gamefish populations might increase, or shorebird populations might increase.

In this case people are not willing, they are not in favor overall of decreasing the TAC unless all three of those characteristics, those attributes would come into play. It takes an increase in water quality, an increase in gamefish populations, and an increase in shorebird populations to get people to be 50 percent or more in favor of reducing the TAC.

This is a similar type of analysis and this shows a similar type of tradeoff analysis, and it shows that water quality is most important in the minds to the survey respondents. But you see the number of jobs that are willing to be traded off is lower than for the increase scenario, and that is consistent with the fact that survey respondents were more in favor of increasing the TAC than decreasing the TAC. Questions?

DR. HARRISON: Just as a follow up, we will have a final report out at the end of March that should be helpful. If you can look at the Executive Summary as well, I know we presented a lot of information and John might have had some numbers up there you couldn't read. But I would suggest reading the document; that will be helpful.

CHAIRMAN BALLOU: Certainly a wealth of information, probably more than we may have ever had on any fishery that I'm aware of; at least with regard to socioeconomic characterizations. Deeply appreciated, and I

know we all look forward to the final report. Questions for either – lots of questions – let's go right to left. Terry Stockwell.

MR. STOCKWELL: Thank you both for your presentation. Dr. Harrison, you mentioned three tiers, large, medium and small scale fishermen. Could you please explain what the differences are between each tier?

DR. HARRISON: The way that those are categorized is small scale operations were 0 to 2 employees, and we allowed that to be part-time as well; so those may not be full-timers. Medium scale is 3 to 9 employees, and then large scale was 10 plus employees. That is arbitrary, but we were just trying to get a sense of some of the differences. Generally the small and the medium scale are going to be your pound netters and your gill netters; and once you go up to that 10 plus you've generally got purse seiners.

CHAIRMAN BALLOU: I'm sorry, I didn't take note of whose hands went up; so who would be next with a question? Rob O'Reilly.

MR. ROB O'REILLY: Thank you very much to both of you. I guess for Dr. Whitehead, I did see a reference in the Executive Summary to the 10 percent increase. It's been a while since I guess all this information was put forth to you to look into. Is there going to be in the report an indication of what the 20 percent reduction in the TAC meant; in terms of economic input or economic output, I should say, or economic impact, however you do that?

I know with the in-plan model that the late Dr. Kirkley had that economic output as well, so was that considered or will that be in the report as well; so that we can see what has happened since 2013, as we moved forward with both the 10 percent increase in TAC and the 4.65, what did you say 4.65 percent?

DR. WHITEHEAD: The Kirkley report only looked at decreases in the TAC. For the impact analysis that we've done, I took as a guide what's been going on with ASMFC over the course of the year. That is where the 10 percent increase, the 10, 20, and 30 percent increases came from for the economic impact analysis that I've just presented. But it's pretty easy to do the negative analysis, reducing the TAC. The numbers are all the same, it's symmetric and I'm more than happy to put that in the report.

MR. O'REILLY: Pardon me for being out of my league here a little bit, so the jobs aspect and everything else plays in to that impact when you go in either direction?

DR. WHITEHEAD: Yes, a decrease in the TAC would lead to a decrease in output earnings and employment.

CHAIRMAN BALLOU: A show of hands of others who have questions; keep your hands up. Let's go to Dr. Duval.

DR. MICHELLE DUVAL: Dr. Whitehead, you mentioned that you weren't able to do the analyses that had been originally proposed due to data limitations. What would have been required in order to do the analyses that you had originally proposed? What specifically was missing?

DR. WHITEHEAD: I think it is the stuff that is going on in the boats. We received information on the number of crew, on fishing trips, but that was two data columns that did not have identifiers that allowed us to link it back to the output data. If we had those identifiers then we could estimate the cost of the crew and gear and develop some profit or rent estimates for the bait sector to compare to or just to develop those estimates. But the data that we received was separate and just not complete; and that was from ACCSP data.

CHAIRMAN BALLOU: Dr. Rhodes.

DR. MALCOLM RHODES: Thank you both for that presentation, it was interesting, and from back here trying to read the tables was remarkably intriguing. I should have brought opera glasses. I had one question, and it may have been I wasn't paying as close attention as I could. But when you were talking about the 6.45 percent increase creating 42 new jobs, the slide before that; I was thinking you said there were 94 jobs in that 6.45 percent increase created 42 jobs or did I misunderstand that?

DR. WHITEHEAD: Yes, the slide before that you mentioned, I believe that's the baseline economic effect, so that would be the snapshot of the 2016 menhaden economy. Then the 42 additional jobs would be the 6.45 percent increase in the TAC, and the 42 jobs are for the entire Atlantic coast; and that example of 94 jobs was for Virginia.

DR. RHODES: Then the total jobs for the coast was what, because I just had that 94 and 42 and that 6.45; it was like a 45 percent increase in jobs, which would be a remarkable multiplier.

DR. WHITEHEAD: Yes, I don't have the number for the number of jobs on the entire Atlantic coast that comes out of the model for 2016 in front of me, but I will be sure and include that in the final report.

DR. RHODES: All right, thank you.

MS. MEGAN WARE: John McMurray, you can go next.

MR. JOHN McMURRAY: I understand that this was geared really towards the bait reduction fishery, but I'm wondering if anybody reached out to the recreational community or the recreational industry, and if there was any analysis on what the impact for that sector was.

DR. HARRISON: Yes, the only element where we included recreational industry elements was the recreational bait markets; so we did talk to

sport bait shop dealers. But we did not do any kind of like a travel cost analysis of the recreational industry; that was outside of the scope of our research.

MR. McMURRAY: I know you weren't tasked with doing this, but I think a really important component when we're discussing socioeconomic impact is availability of fish along the coast, and the opportunity it provides for a host of stakeholders; not just two sectors.

DR. HARRISON: I know John does those kinds of studies; you can maybe employ him to do that.

CHAIRMAN BALLOU: Emerson Hasbrouck.

MR. EMERSON C. HASBROUCK: Thank you to our two presenters for your report. Thank you also for contacting and including fishermen from New York in your survey. They have contacted me and I know they were very appreciative of the fact that they were included in this. My question is for Dr. Whitehead.

One of the last slides that you had up there where you correlated water quality, I think the slide said with an increase in water quality fishermen were less inclined to reduce the TAC; or maybe I misunderstood you. But it was one of your last slides. It was the last slide or second to the last slide.

DR. WHITEHEAD: We presented two types of scenarios to people, one was for an increase in the TAC and the other is for a decrease in the TAC. If people were presented with an increase in the TAC, they were told that either water quality would not change or water quality might decrease. For the decrease in the TAC, respondents were told either water quality would not change or water quality might improve.

In the statistical analysis from both those scenarios shows that people recognize the tradeoff. If there is a potential for a water

quality improvement, people are less likely to vote for the increase in the TAC. In the other scenario, when there is the potential for water quality improvement, people are more likely to vote to decrease the TAC. The same logic applies to the other two attributes, the gamefish and the shorebirds.

CHAIRMAN BALLOU: Emerson, you have a follow up?

MR. HASBROUCK: Does that mean, and maybe I'm getting into sociology here perhaps. Does that mean that fishermen saw some relationship or do you have any explanation for that? Did they see a relationship between an increase in the TAC with an associated increase in improving water quality? Maybe I am just misunderstanding your analysis.

DR. WHITEHEAD: These results are from the public survey where we used Survey Sampling International's panel, which is a nonrandom sample of the public; so just anybody who signs on to that online panel could be included in our survey. We do know the folks in that who have some connection to the commercial fishing industry; and we do know the people who are anglers. We can look and see how those two demographic groups would vote differently under different situations.

CHAIRMAN BALLOU: One more time.

MR. HASBROUCK: Very quickly. I would suggest then in your final report you make that explicit, in terms of what that population was; because to me it was not explicit in your presentation.

DR. WHITEHEAD: Will do.

CHAIRMAN BALLOU: Nichola Meserve.

MS. NICHOLA MESERVE: There is a lot in this presentation, more than the Executive Summary, so I look forward to your final report

in March. I did note, being from Massachusetts that none of the participants in either the survey or the interview set were from Massachusetts; and you may have addressed this partially with Emerson's question. That was a little disappointing for me, but how those people were pooled from again that had that results is one question, and secondly, could you clarify for me whether the final report is going to have economic impact information that compares the bait and reduction fisheries and potential quota allocation between the two?

DR. HARRISON: I can answer that first one. We really worked hand in hand with the board and ASMFC to consider which states to do interviews and surveys. We were limited with time and resources, and we certainly wanted to get a diversity of the industry, you know what it looks like from state to state. I will say though when I was in Rhode Island, I did talk to some folks that also work in Massachusetts; there are some connections there. I am getting mixed up when I think about my travels.

I was in Massachusetts for a moment in somebody's house, but then that fisherman, I believe all of his quota is with the state of Rhode Island; although he might have had a mix. I was close, but anyway that was really kind of a decision from some of the folks that we've been working with here on which states to include, so I apologize that you guys weren't there. Then the other question, can you just repeat that?

MS. MESERVE: If there will be economic impact data comparing the bait and the reduction fisheries, in terms of quota allocation between the two. I wasn't sure if the Virginia economic impact data that you were showing was for Virginia as a whole, including both their bait and reduction or one or the other; and if the two could be compared, for example.

DR. WHITEHEAD: Yes. I guess it wasn't clear on the slides, but we do have the Virginia impact

numbers for the bait and the reduction sectors split out in the report. It will be straightforward to see how the economic impacts for the different sectors compare. I am not sure if we're going to do an explicit allocation analysis; that wasn't in the proposal. But the economic impact stuff will be there if that's whatever you would like to do.

CHAIRMAN BALLOU: John Clark, and then I would like to wrap up.

MR. JOHN CLARK: Just to follow up on some of the other questions, I think that Rob and Nichola asked. Is that formula used for predicting jobs just based on a certain amount of extra quota it leads to extra dollars and extra jobs therefore? It doesn't take into account whether the operation was working to capacity beforehand, and I think Rob was getting to that point. You had real world data when the quota was reduced by 20 percent, did you see a reduction in the number of jobs in the menhaden fishery that you would expect based on your model at that time?

DR. WHITEHEAD: I'm going to ask you to repeat that second question. But let me answer the first one. The model assumes, in economics we say a perfectly and elastic supply, which means that if you inject something into an economy then the economy has the capacity to absorb that and pursue the economic activity. There are no capacity constraints in this model, so in that case it can be unrealistic in certain situations. I'm not familiar with whether that's the case here or not.

MR. CLARK: Right and I think that is just what I was getting at, because you had a real world example of when the quota was cut 20 percent; and could you go back and look and see if, okay in the menhaden fishery based on this model, we lost the number of jobs in that fishery we would have expected based on this or whether because of other things going on that you didn't

see that or if there was any way to look at that at all.

DR. WHITEHEAD: I haven't done this analysis yet though, but I have a county level jobs income and output data from NOAA that I am going to analyze with the actual menhaden landings from those coastal counties. Then that way I can groundtruth the results from the RIMS model.

CHAIRMAN BALLOU: Kyle Schick, and then we really do need to wrap up.

MR. KYLE SCHICK: Yes, just a quick question. I understand the effects of menhaden with gamefish and water fowl, I guess more like the eagles and predator birds. Where was the water quality issue brought up? I don't know of any studies that show a definitive answer that catch decrease/increase effects water quality. I was just wondering if that was something you put in there just as kind of a placeholder for environmental issues, or is there something that you have as a quantitative analysis that shows that water quality is affected by the catch of menhaden.

DR. WHITEHEAD: We're not scientists and we haven't done an extensive review of the scientific literature; but water quality is an issue that I think has been raised in the past. In the survey I think we tried to characterize that effect as uncertain; and the survey allows us to turn that characteristic on and turn the characteristic off to simulate votes and tradeoffs, depending on how the science works its way out. We were very careful not to make assertions about the scientific impacts; but we wanted to create a model that was flexible enough to handle scientific results that may come down the road after a number of years.

CHAIRMAN BALLOU: Okay so I am sorry, Roy, I really think we do need to move along. But I will take the board's interest to be indicative of the fact that this was an important piece of

work for us and my understanding as to where we go from here is the completion and submittal of the final report by late March; at which time it will be put on the ASMFC website, so not only made available to the board but made available broadly to anyone who may be interested.

Then of course that would be available to us to draw upon as a board as we move forward with the Amendment 3 process. I think that's where we are. I think we obviously stand to benefit immensely from this very impressive body of work, so on behalf of the entire board I just really want to thank both Dr. Whitehead and Dr. Harrison for their excellent work.

I also want to just take a moment to further recognize and commend Shanna Madsen at the far end of the table to their right, or your left as you look at them; from the Commission's Fisheries Science Program, who very competently ushered this study from beginning to end, so thank you, Shanna as well.

Are there any other further comments or questions regarding this agenda item? Seeing none; we'll move on, and again say thank you to both doctors for their excellent work. I think they're going to swap out their seats for a couple of other staffers who are going to move in; and this brings us to Item 5 on our agenda, the PID for Amendment 3.

PUBLIC INFORMATION DOCUMENT FOR AMENDMENT 3

CHAIRMAN BALLOU: Actually our next two agenda items are very closely related. First we're going to review the public comments submitted on the PID, the Public Information Document for Amendment 3. We also have an AP report on the PID, and then following that as the subsequent agenda item, we will roll up our sleeves and begin the process of tasking the Plan Development Team on the development of the Draft Amendment.

Turning first to the PID, Megan has put together a summary of the public comments; and I'm about to turn to her to present that summary to the board. Before I do, on behalf of the entire board I would like to offer our deep appreciation to the many thousands of stakeholders who weighed in. Our management process is designed to accommodate and be responsive to public input.

The PID is a key step in that process. If we didn't get much feedback, we wouldn't have much to go on. But thanks to the 25,606 comments we received on the PID, we have a lot to go on; and for that we say thank you to everyone who took the time to write in, attend hearings, and otherwise voice their opinion. With that and with the understanding that we have about 45 minutes for this particular item, Megan, the floor is yours.

REVIEW PUBLIC COMMENT

MS. WARE: I will be reviewing the public comment that we received on the Amendment 3 PID. Just a brief overview of how we're going to go through the comments. I'll start with a timeline of Amendment 3, and remind us of where we are and where we're going. Then I'm going to dive right into the public comment, so I'll start with the public hearings and also the written comment we received.

Then we'll have Jeff Kaelin provide an advisory panel report. Then after that we'll kind of take a step back and evaluate where the board wants to go with Draft Amendment 3. To kick us off on that discussion, Katie Drew is going to just provide a brief refresher on the different ecosystem or reference point options, so that everyone has a clear idea of what those different options mean and can provide proper guidance for the board. This is our timeline for Amendment 3.

Today the board is going to review public comment, and also provide direction to the Plan

Development Team on what to include in Draft Amendment 3. Plan Development Team is going to work on Draft Amendment 3 from now until August, and we will do a check in at the May meeting. This will provide an opportunity for the board to see the progress of the Plan Development Team; and also provide an opportunity for the Plan Development Team to ask any other questions of the board.

Hopefully at the August board meeting we will approve Draft Amendment 3 for public comment, and this will make our public comment period from August to October, 2017. Given that annual meeting this year is a little earlier than normal, it is October 16th through the 19th, and the fact that we anticipate a high volume of public comments, we are going to have a separate meeting for menhaden in November, 2017.

This will be similar to what was done for Amendment 2, where we'll devote a full day to a menhaden meeting; and we'll focus on final action on Amendment 3. Moving to our public comments, we conducted 14 hearings in 13 jurisdictions, and those ranged from Maine to Florida; and in total we had about 300 individuals attend those hearings. Turning to written comment, as was mentioned we had 25,606 comments received; 75 of those were from organizations, 283 were from individuals, and over 25,000 were form letters. We're going to start with reference points just to orient everyone to how the tables work. I recommend if you have the meeting materials in front of you, to look at the tables on a paper; because it may be easier to read.

But on the top there in black we have our different management alternatives or options. Then the first three rows individual organization and form letter, those were comments received either written or via e-mail. Then we have a break where it says hearings, and after that we have the different states; so those were the

comments that were received by individuals who attended a public hearing.

Turning to reference points, reference points were the most commented issue on the PID. We did receive over 25,000 comments in support of Option D, which is existing guidelines for forage fish until menhaden specific ERPs are developed by the BERP; with someone from every state commenting in support of this option.

Some of those who supported this option highlighted the importance of menhaden to the ecosystem as forage fish, and a need for policy to reflect this ecosystem role. Others looked at the fact that menhaden support larger fish, birds, marine mammals, and as a result they're important to the health of our oceans; as well as coastal economies which include things such as tourism, recreational fishing, birding, and whaling.

Several commented that there is a need for greater protection of menhaden, as even though we have growing abundance in our waters, there continues to be low recruitment in the Chesapeake Bay. We did have some who are in favor of Option A, which is maintaining our single species reference points.

Those in favor of this option generally stated that the current reference points are working as by our definition the stock is not overfished and overfishing is not occurring. Others noted that the board could have increased the TAC by 40 percent, and according to our definition of overfishing there was a small likelihood of exceeding that.

Then others noted some concern with unexpected consequences of ecosystem reference points; particularly economic consequences. We did have some who were in favor of Option B, which would be implementing existing guidelines for forage fish. Those in favor of this option stated that

ecosystem reference points are needed now and the board should not wait.

Then finally we had some who were in favor of Option C, which is maintaining our single species reference points until those menhaden specific reference points are ready by the BERP. Those who favored this option stated that they want the BERP to continue work on ERPs, but for the meantime the board should stick with what it knows.

Others commented that one model does not fit all, and so they had concerns about applying a general forage fish rule to menhaden. Others stated that they wanted something to be peer reviewed. We did have one proposal for a new ERP, and this was based on osprey; so I'll do my best to present this to the board. It looks like osprey populations in Connecticut and New York, which are sensitive to menhaden abundance, and the hypothesis of this proposal is that osprey's serve as bio-monitors of menhaden abundance as fluctuations in the abundance of osprey have mirrored those changes in the abundance of menhaden. The proposed reference points are two young ospreys per successful nest; and that would serve as the reference point for the Connecticut River estuary and one young osprey per active nest for the Gardiners Bay, New York area.

If reproduction of osprey fell below these reference points that would indicate menhaden depletion and for reference in 2016 there were 2.5 young osprey per successful nest in the Connecticut River estuary and 1.39 young per active nest in Gardiners Bay, New York. The authors of this proposal did note that ecological conditions also affect osprey, so things such as predation and weather.

That's why there is a difference between a successful nest and active nest, where active nests are all nests and successful nests are those that did not fail outright. Our next issue is quota allocation. A majority was in favor of

Option B, which is jurisdictional quotas with a fixed minimum; and there was support from this option from almost all of the states.

Many felt that this represented a fair way for each state to participate in the fishery, and that allowing each state to receive 1 percent of the quota would solve many other issues in the fishery; such as the bycatch provision or episodic events. Overall people supported this option, generally because they felt it would protect small scale fisheries.

Going through the other options here, I am going to go left to right, so A through H here. Option A is our state-by-state or jurisdictional quotas. Those in favor of this option liked the current allocation strategy of state-by-state allocations, and thought that the true problem was with the allocation timeframe.

They generally felt that it works well administratively, and there was the greatest support for this option at the Maryland public hearing; although many fishermen did feel as though they don't have a measurable impact on the stock, and should not be subject to a quota. Option C is our coastwide quota, and those in favor of this option wanted to distribute landings along the coast.

There was the greatest support for a coastwide quota in Maine. However, they recommended that it be combined with a seasonal quota, so that landings could primarily occur in the summer when bait is most needed. We did receive several letters which did not support a coastwide quota, and the primary reason for this opposition was that it could cause a race to fish.

Option D was our seasonal quotas. Those who favored this wanted to spread harvest throughout the year. There was a recommendation for a winter fishery, in which remaining quota is pooled into a coastwide fishery in November and December. Option E

was our regional quotas. Similar to seasonal quotas, those who favored this option wanted to spread harvest out along the coast.

Several liked the combination of a regional and seasonal quota to divide harvest spatially and temporally. Others such as those in Massachusetts and New York did not like the option of regional quotas, and they expressed concern that they may be beat out by southern states such as Rhode Island and New Jersey to that quota. Option F is our disposition quota, so that splitting the quota between the bait and reduction fisheries. This was the second most popular option, and many felt it would be a way to protect the bait fishery. Most recommended a 30/70 split with 30 percent of the allocation going to the bait fishery and 70 percent going to the reduction fishery. Option G was a fleet capacity quota, and there was general support for this option as a way to protect quota allocated to different gear types. Some fishermen expressed concern that they might be pigeonholed into a specific fleet type based on landings, and they would not be able to increase their landings if the menhaden stock continued to improve.

Some people did comment on the option of soft quotas, and overall there was much greater support for a hard quota, as people did not have confidence in soft quotas to cap harvest. Our final option was Option H; so this is an allocation strategy based on the TAC level. We had one individual and one organization that supported this option.

Those who supported the option stated that the fishery needs to be made whole first, and then the board can work to allocate more quotas to the bait sector. There were several comments that spoke against this issue, as it might result in perverse incentive to change the TAC. Throughout the public hearings we did see or receive many other suggestions on ways to allocate menhaden.

Some of those I've already discussed, so that would be the coastwide distribution, by season or combining regional and seasonal quotas; but some of the others included a fixed minimum quota with a four-region split, fixed minimum quota with a coastwide winter fishery, seasonal quotas with state allocations.

One of the new ones was progressive catch limits, so the idea behind this is that there would be a catch limit, and that would get progressively smaller as the fishery got closer to achieving that TAC. This would be a way to preserve the fishery for some of the smaller gear types. Then a comment we received several times was that allocation should be based on the biology of the species.

Moving to our allocation timeframe; while there were two comments in support of the current allocation timeframe, which is 2009 to 2011. The majority of comments felt that the allocation timeframe should be changed; so a majority supported Option C, which was for longer time series average.

Some stated that the time period needs to be longer to encompass a full generation of menhaden, and others provided specific dates. Some recommended going back to 1955, others in Rhode Island and Maine pointed to high catch in the 1980s, and recommended that these years get included.

Some states such as Maryland wanted to make sure 2012 was included in a longer time series; since this was a good year for them. Then in Florida they did note that they've had a net ban since 1994, and that this should be considered when setting the allocation timeframe. We did have some who supported Option B, which is 2012 to 2016.

Most of them were in New York, and they noted that they've had issues with the lack of reporting; so the most recent years include all of the catch. Others did not like this option,

because it includes years when we have had a TAC in place, and as a result catch has been limited. Then finally Option D, which is weighted allocation. Some supported Option D as a compromise between considering past trends and current harvest rates. Our next issue is quota transfers. There weren't specific management alternatives in the PID for this, but I've tried to group the comments into different categories to provide a bit of a summary here. The majority supported quota transfers, but also noted that greater accountability measures are needed to prevent abuse of this provision. Some of the recommendations for greater accountability measures included that a state could not do transfers two years in a row, that a state could only accept a transfer if the quota has not been exceeded, or that transfers can only occur within a region.

That way quota that has been allocated for example to Maine can't be suddenly changed to Florida. People had concern about the science behind that. Others opposed quota transfers. Many felt that it would not be necessary if reallocation was properly done, and that overages should not be forgiven. Others felt that transfers encouraged states to exceed their quota or allow for increased harvest in certain areas which could result in localized depletion.

Some expressed concern about the growing abundance of menhaden and the fact that this may lead to kind of the commodification of menhaden transfers. We did ask questions about quota reconciliation, and overall there was pretty limited support for this option. Those who did support it stated that it was an easy way to address overages.

Our next issue is quota rollovers, a majority opposed quota rollovers and there were approximately 1,500 comments that opposed them. Those in opposition stated that rollovers allowed for significantly higher harvest in some years than what the science recommends; that rollovers may allow for localized depletion.

Others recommended that there be no rollovers so that unused quota can serve as a buffer for the stock. Many commented that if a state is not catching its quota that might be an early sign of poor stock condition. Some did favor rollovers or limited rollovers, and they stated that states should be allowed to catch everything that it is allocated, but they did note that the stock should be in good conditions; so we should maintain those provisions that rollovers can only occur if the stock is not overfished and overfishing is not occurring.

Moving on to incidental catch, the majority did favor Option C or Option F, and just for clarity there were many letters which recommended that the catch be included in the TAC, and that was counted as Option C and F; since both of these options achieve that goal. Those in favor of Option C generally stated that they wanted incidental catch to be included in the TAC.

The same goes for Option F, which is our small scale fishery set-aside, but those in favor of this option also stated that it relieves administrative burden, it protects small scale fisheries. Florida was in favor of this option at the public hearing, and those in the cast net fishery did note that the cast net fishery is a directed fishery, and they want to be considered as such; so this option would kind of allow them to be a part of that fishery.

We did have those in favor of Option A, which is our status quo, so setting aside some sort of limit per vessel. In Maryland they supported Option A, as long as they get to keep the provisions of Addendum I, and just as a reminder that allows two permitted individuals fishing from the same vessel to land up to 12,000 pounds of menhaden; if they're fishing stationary gears.

Overall there was pretty limited support for Options B, D and E. Turning to the Episodic Events Program, the majority supported the removal of the Episodic Events Program, and

they felt it wouldn't be necessary with proper reallocation. Others expressed concern that an episodic event is not well defined, and several commented that it's a short term solution for a long term problem. Others did support the maintenance or an increase in the set-aside. Many of the New England states commented that they would need an episodic even program if reallocation does not provide them with more quotas.

New York stated that they want to be included in the set-aside or have their own set-aside. Then individuals in Florida recommended that participation be limited to small-scale gears and in-state residence. Our next issue is the Chesapeake Bay cap. A majority of participants wanted to either maintain or reduce the cap.

Those who were interested in maintaining the cap said it was an important tool for the management of Chesapeake Bay, and that it was an important stop-gap to protect the nursery grounds. Over 2,000 comments were in support of reducing the cap, and many expressed concern that the reduction fishery could expand to twice the level that it's at now in the Chesapeake Bay.

Recommendations on the level of reduction ranged, but a majority were in favor of a 50 percent reduction to current levels. Others recommended that we should use a five-year average; and others recommended expanding the geographic extent of the cap to some of the Virginia coast. We did have a couple who were in favor of removing the cap, and those stated that the majority of catch is coming from the mouth of the bay in Virginia, and so the cap is not necessary.

Finally, our last issue here is a research set-aside. There was a slight majority against a research set-aside, with concerns about the abuse of the system and the fact that maybe a high volume of fish isn't needed for research. Those who were in favor of research set-aside

stated that it would foster collaboration with industry, and that there are many research questions that still need to be answered.

Then this final slide here is just a list of all of the research programs that were recommended. I'm not going to go into this list here; but some of the themes were relation to the environment, so how the environment affects menhaden, but also how menhaden effect the environment, greater regional trends, and speciation of menhaden. If there are any questions about the list I am happy to answer them.

ADVISORY PANEL REPORT

CHAIRMAN BALLOU: Let's do this. Let's roll right into the AP report, and then I think we'll pause and open the floor to questions. I know we have a few slides that captured the AP report; and I guess I'll let Jeff Kaelin our AP Chair run through those, thanks.

MR. JEFF KAELIN: I'm Jeff Kaelin with Lund's Fisheries in Cape May, New Jersey; and I am the AP Chair. I am privileged to sit here as the AP Chair. There are several AP members in the audience today, and I think Megan put together a slide presentation that encapsulates the memo of January 23, which you have.

Rather than reading that I'll just ask Megan to go through that I think, since you made it. We reviewed it. I think it captures what occurred on the call. What we did on the call, Mr. Chairman, was we reviewed the public hearing comments; the written comments weren't available at the time. We try to operate by consensus.

We didn't take any votes or anything, but I did give all of the AP members on the call, and you were on the call too as I remember, an opportunity to make a statement that was kind of qualitative in terms of their overall view. That is what we have and if you want to go ahead and comment on that Megan that's great.

MS. WARE: As Jeff mentioned we had an AP call on January 9, we had 14 members in attendance; which I think is really great, and shows how the kind of revitalization of this AP is really working. I presented some of the summaries from the public hearings but not the written comments.

I've split the AP comments into three different categories; the first is comments on reference points. Three members supported Option D, which is again the existing guideline for forage fish until ERPs are developed by the BERP. Some commented that reference points dictate how the fishery is allocated between all stakeholders; it is not just between the reduction and the bait fishery but the recreational fishermen, the environment, tourism industries and things like that.

One member stated that a one-size-fits-all approach to managing forage fish is not appropriate. One member commented that few fisheries are in as good a shape as menhaden, and he questioned why there was such a need to change the management strategy. One member noted that ERPs would help the resource and the economy.

Then one member recommended that the option which states the possibility of combining the 75 percent unfished biomass target with the 40 percent unfished biomass threshold, be forwarded in Draft Amendment 3. The next sets of comments are on the allocation. Three members highlighted the need for a longer allocation timeframe; with historic fisheries in New York and New England, and that those should be recognized.

Two members supported Option H, which again is our allocation strategy, based on the TAC level, and noted that the fishery needs to be made whole again, and then additional quota can be distributed to the bait sector. One member supported Option B, which is our state specific quotas with a fixed minimum, and

Option D, which is seasonal quotas; and commented that quotas should be reserved for seasons when it is most needed.

One member just supported reallocation in general. Then just some other comments, there were two recommendations for Draft Amendment 3. There was a recommendation that a table be added to Draft Amendment 3, which compares the various reference points on a common currency; and there was a recommendation that a table be added to Draft Amendment 3 which summarizes catch by state, gear type, and year. With that we'll take questions.

CHAIRMAN BALLOU: Great, before I open up the floor to questions I do want to note that I was on the AP call. I really am impressed with both Jeff's stewardship and the thoughtful comments offered by the members; so thank you to Jeff and through you to all the AP members for their contribution.

I would be remiss if I didn't note that Megan once again really did an outstanding job coordinating all the public hearings from Maine to Florida. We are a large board geographically here, and she attended and conducted many of those hearings herself, and then in remarkably short order pulled everything together for board consideration today. Again, to her and other staff members who lent their assistance, we extend our appreciation. With that I will open the floor to questions. We're not in comment mode, we're about to go into comment mode but we're not there yet; so at this point are there any questions for Megan or Jeff on the public review of the Public Information Document? Yes; Rob O'Reilly.

MR. O'REILLY: Thank you Megan, thank you, Jeff. I know it is not available I suspect, but you know the public had quite a few comments; it looks to me about 358 written comments, and then the rest were form letter style. It would

probably be good as we go along if we had one table that showed all the majority.

I know there were a couple that were close, but generally there was some real good majority elements there; so as we go through we can turn to the Technical Committee, turn to Jason and get some advice on, for example, what is really practical and what is not. I'll just take one. I know in the hearing that we had in Virginia there was some clamoring for using data as far back as we had it.

Let's use data back into the fifties, and then there was one for let's use data back to 1985. I really didn't have much to say until the end of the meeting, but I did point out then certain parts that had to be looked at, such as when do we really think the data are suitable to look at this allocation question?

I know there are some recent gaps in recent years that we have from New York, and I guess also Florida had a situation. We have that but in general that is not a deterrent, as in some of the earlier years when you go back and you realize that you can't assume that if you're missing data that it's missing data for all.

There is not a systematic omission of data as you go back. That would be one thing to look at. It would be nice if we could go through these as we proceed; Mr. Chairman, and kind of keep that approach. Megan, I don't think you have that type of table for us to look at. I don't know. But it would be good; for those of who kept notes, we can sort of simulate that as we go on, so that's my question.

MS. WARE: If I understand the question, Rob, I think you're asking for a table that shows kind of the majority vote at the end. When we move into our discussion for tasking the PDT on what should be included in Draft Amendment 3, I have slides that show just total what the votes or counts were for each of the options; and then some questions to kind of help prompt

that discussion. Hopefully that will help answer your questions, and I can provide a bit more information as we go on; for example years of data, and what might be more reliable than other years.

CHAIRMAN BALLOU: Other questions for either Jeff or Megan. Yes, Dave.

MR. DAVID BLAZER: I just want to say kudos to Megan for an outstanding public hearing in Maryland, it got a little bit feisty there in the beginning, but she worked her way through it and we appreciate all the hard work that you did. My question, Megan, is on the state specific quotas and the first couple options. In Option B, where it talks about the state specific quotas with a fixed minimum, I have a couple different interpretations of that. If you could refresh exactly what we mean by the 1 percent allocation as kind of a minimum.

MS. WARE: Yes, so the 1 percent is just an example. Something I'll be looking from the board today is if you guys want to pursue that option, what that percentage would be. But how that option would work is that they, we'll use 1 percent as an example, would be allocated to each state and then the remaining amount would be allocated based on average landings from an allocation timeframe.

**PROVIDE GUIDANCE TO THE PLAN
DEVELOPMENT TEAM ON THE DEVELOPMENT
OF DRAFT AMENDMENT 3**

CHAIRMAN BALLOU: It seems like this might be a good segue way to move into our next item, which really blends so well with what we just went through; and that is Item 6, Guidance for the PDT on the Development of Draft Amendment 3. To summarize our aim now is to essentially launch the next step in the amendment process by providing guidance to the Plan Development Team on the issues and options to be included in the document; and subject to further development.

We've got about 45 minutes for this item, and we've got a lot to work through; so let's see how well we can do here. To help frame and guide the discussion, let me give you a sense as to how we plan to proceed today and how we plan to proceed over the next five months. A lot of this Megan has already noted, so I'm just going to tick through this quickly.

For today we're going to go back over the issues set forth in the PID, and consider which issues and options the board wants to retain; and which if any the board wants to eliminate, modify or add. My M.O. will be to seek consensus and call for motions and votes only if there are competing views among board members; and I would hope that that would not happen often, but we'll see.

Given the large amount of public input received during the review of the PID, I do not plan on taking any additional public comment today. Keep in mind that we're still essentially at the conceptual stage; that is framing the issues and options to be fleshed out by the PDT for development of the draft amendment, which in draft form will be brought back before the board for further review.

In moving forward today the board is not committing to any particular direction or outcome; we're just framing. Looking ahead, as Megan indicated this is a relatively new development, but I think it's an important one. We are going to use our May meeting to hear back from the PDT in the form of an interim status report. That will give the PDT the opportunity to report out on how their work is progressing, and the opportunity to seek clarification from the board on any issues or options they may need further guidance on.

It will also give the board and the public the opportunity to see how things are taking shape and respond accordingly. Then of course we'll use our August meeting to review and approve the draft amendment for public comment. Are

there any questions on where we are, where we're going or how we plan to get there with particular reference to our goals and objectives this afternoon? Is everyone clear on what we're about to undertake?

I think the context is very important. Sometimes these sorts of discussions tend to get into a pro and con as to which option we prefer. That is not really the point. The point is how do we want to frame the document to be developed by the PDT? I see no hands, so I assume I was effective in trying to characterize where we are. We'll move through the issues now by first addressing. As Megan noted and I think this is going to be very helpful to kind of help set the stage for the board's review of the reference point issue, Katie Drew has kindly agreed to provide a brief overview of that issue; summarizing both the work being undertaken by the BERP Working Group and the existing guidelines set forth in the PID. Katie, the floor is yours.

DR. KATIE DREW: As was discussed, basically I just want to give you guys a refresher on some of the options that were name dropped in the PID; so that everybody kind of knows what we're talking about when we go through and discuss the various pros and cons of the options that are going to go out for public comment.

What we have basically on the table for consideration are single species reference points, which are a product of the most recent benchmark stock assessment, generalized ecological reference points that are kind of existing guidelines for forage fish; and this includes specifically the Lenfest Report and the 75 percent BMSY Rule of Thumb that have been referred to specifically within the document.

The third option would be the products of the Biological Ecological Reference Point Working Group that is working on this issue now for ASMFC. This is kind of a table of some of the various options that are on the table, so that

you can get an idea of the scale that we're talking about.

The top in gray is the Amendment 2 BRPs. That is what has been used most recently to manage menhaden. That includes the F15% MSP where MSP is your maximum spawning potential. The idea of these F reference points is that F15% MSP would leave 15% of your maximum spawning potential in the water; so that you would fish at a rate that leaves the population at 15% of its maximum spawning unfished potential.

You can see the values over on the far side. The threshold in the past was 2.98 or 15% MSP; and the target was 1.03 or 30% MSP. The most recent benchmark stock assessment produced single species reference points that are similar in concept but recommended different values. The threshold proposed by the most recent benchmark stock assessment is the 1.26 or 26% MSP and the target would be F 57% MSP of 0.38.

The Lenfest Report recommends a value that is essentially based on where we are with the stock; half of the natural mortality value for this species, which works out to an F of 0.29, and that is essentially equivalent to an F of 64% MSP. On the bottom row you can see where we are right now that is the F in 2013 was 0.22, so it was below all of these reference points indicating overfishing is not occurring.

This is kind of a framework for some of the options that we're going to talk about with actual numbers attached. The first option kind of on the table is these generalized ERPs for forage fish; existing guidelines I think they're called in the document. Where they come from is essentially a meta-analysis of ecosystem models.

A suite of ecosystem models such as EwE that is ecopath with ecosim, ATLANTIS, a few other options; were run for multiple different forage

species, multiple different ecosystems. Some of these studies looked at menhaden in the Chesapeake Bay, but they also included things like sardines in California, anchovies, throughout the Pacific and the Atlantic, the north Atlantic, a number of different species and ecosystems were analyzed together. The intent was to provide sort of a generic conservation buffer and a control rule; especially for data limited situations that would ensure that you left enough fish in the ocean to prevent stock collapse for the exploited species, as well as to prevent adverse effects for the predators involved.

The meta-analysis component was trying to look at options that would reduce this risk or reduce the adverse consequences to an acceptable level across multiple different situations. That is why they are sort of in a sense generalized for forage fish, but they cover a wide range of ecosystems. One specific example that's in the PID is a product of the Lenfest Report; it is also cited as Pikitch et al, where they have a number of different information tiers.

Based on what they laid out, the TC felt that menhaden fell in the intermediate information tier; which means that you apply this hockey stick control rule with a biomass threshold of greater than 40 percent unfished biomass and an F less than or equal to 50 percent of your natural mortality rate.

That is kind of laid out in this figure here where that dashed line across the top represents your F threshold; that you wouldn't go above that F threshold, which represents about 0.29 for menhaden. Then that happens at sort of your maximum stock size, and you ease that fishing mortality back as your stock declines; and below 40 percent of your unfished biomass no fishing is allowed.

This is an example of this specific type of reference point from this specific report.

Another option that was mentioned specifically in the report is this sort of 75 percent unfished biomass reference point from Smith et al. Again it is a similar type of meta-analysis of ecosystem models, where the idea is you exploit the population; your target exploitation is a level that would leave 75 percent of the unfished biomass in the water.

That is essentially an F target of 75% MSP, which means that if we're at about F 70% now we are close to the target; but still below the F threshold, which was sort of proposed to go along with this would be an F40% would be your threshold, and you would not fish above that 40 percent threshold. The other option in terms of ecosystem models is the product of the BERP Working Group.

These are a little different from the generalized models, in that they are going to be menhaden specific models and this includes a multispecies statistical catch-at-age that is in production now. They are intended to really allow the evaluation of tradeoffs between menhaden quota, predator biomass and levels of acceptable risk; so that the board could say, we're willing to accept a certain level of risk of overfishing in the stock.

We want to accept a certain level of risk of overfishing our predators; or our predators not having enough prey at different levels of risk, different levels of quota, and to be able to actually evaluate the tradeoffs from that perspective. As a reminder, we had an Ecosystem Management Objective Workshop in August of 2014 that laid out some of the board goals for ecosystem management.

That included the goal of sustaining menhaden to provide for fisheries, sustaining menhaden to provide for predators, and providing stability for all types of fisheries. These types of reference points all essentially meet these goals; that they are intended to provide menhaden to fisheries, provide menhaden to predators, and provide

kind of a stability and understanding of how these rules will be applied. But there are sort of pros and cons to each approach. The pros of the generalize model obviously are that they are available now; that this work has been done and it's been peer reviewed, and they are available for management use now.

The BERP products will not be available until 2019. They will be peer reviewed, but they're still under development. The generalized models also include birds and mammals in there; they're very comprehensive, ecosystem models. The BERP products that will be used for management focus on the major finfish predators.

We will have an ecosystem type model, a EwE model for Atlantic menhaden, but it's intended to be more of a compliment to the actual models that will be used for management purposes. The generalized models do include specifically birds and other marine mammals, whereas the BERP products will not for management.

The pros of the BERP approach are that they are menhaden specific, so we will not be incorporating any data from other ecosystems, from other species or other fisheries; this is really focused on the menhaden ecosystem, the menhaden fishery. The other benefit of the BERP working group over the generalized models is that they do allow those tradeoffs.

To be able to say this level of menhaden quota is going to result in this level of striped bass biomass, of weakfish biomass; so that you can compare the effects of increasing or decreasing your menhaden quota on the predators that you're interested in. Then evaluate what is worth it, essentially in that level of tradeoff; as well as being able to specify the level of risk that you are willing to accept as a board.

The generalized models essentially have their level of risk and of tradeoff already baked in,

and there is not a way to adjust that; not a way to quantitatively evaluate those effects. This is kind of just a general overview of some of the things you may be wanting to think about as you go forward with these options; and I'm happy to take any questions about the BERP products or some of these other options.

CHAIRMAN BALLOU: Questions for Katie.

MR. O'REILLY: Thank you Katie, and the way you presented that is very elegant, so thank you. I guess what I don't know are a couple things. I'm going to be indirect about the process a little bit, but the meta-analysis, is that as rigorously set as an assessment process that I'm more familiar with.

Does the meta-analysis have the same scientific rigor that perhaps what's been done with the BAM model or something else? That's one question. I would like to get the other question out, because I don't want to raise my hand twice on this issue, so if that would be okay with the Chair.

CHAIRMAN BALLOU: Sure.

MR. O'REILLY: The other question is, has the Technical Committee changed its recommendation concerning the use of the Lenfest or the Lenfest derivative models for menhaden, and whether they have or have not, is that extra work? Is there any diversion there to moving to something like that as an interim approach? I hope that's enough to be understood.

DR. DREW: I would say the Lenfest Report; these EwE models are certainly robust scientific products. I mean it's not quite the same process as a stock assessment, and I think probably the stock assessment has to be a little more conservative in some of the choices it makes; in terms of what quality of data, where we borrow data from and things like that.

But definitely the Lenfest Report is a very robust product of multiple scientists. There was a peer review process. The TC hasn't changed its recommendations, which is that it's not like we feel this is garbage science by any means. I think we do feel this is good science. But with menhaden I think we can do better, and we can do it specifically for menhaden.

I think our concern is not about the robustness of the meta-analysis, and not about the robustness of the data that went into the ecosystems; it's more concerned about the generalized nature and the multi-ecosystem, multi-species features compared to the benefits of a product that is specific for menhaden and for our fisheries.

CHAIRMAN BALLOU: We have Jason McNamee, our TC Chair. I think he may want to add to Katie's response.

MR. JASON McNAMEE: I agree with everything Katie just said. I just thought I would hit one other aspect of your question, Rob, and that was I think you asked about the workload. I actually thought about that a little bit in talking with Megan. We checked in on that specifically with Dr. Schuler about that. Dr. Schuler always puts things in these really nice ways, so I'm going to quote her directly and she said, "If we get a couple well defined additional reference points, we can handle it."

The ones that we've been looking at here I think meet those metrics, if we're talking about one, two, maybe that third hybrid version; I think we would be okay to produce them. Keep in mind, I guess I will add that when you're talking about the BERP and the Menhaden Technical Committee and the update assessment, you're talking about the same people each time; so that is something to keep in mind also.

CHAIRMAN BALLOU: Additional questions? Emerson.

MR. HASBROUCK: I have two questions, if you will please, one for either Katie or Jason, the other one for Jeff; relative to the AP. My first question is Katie, in your presentation and also in the document you refer to generalized models frequently. Are those generalized models in that they are general for a lot of different species, or are these generalized linear models that are being used, or are they generalized linear models that are being used for a general assemblage of species; that's my first question.

DR. DREW: The models themselves are very broad in scale. I would say the reference points are what are generalized, in that they come from a meta-analysis or a combination of multiple different models; but each model was built for a specific system. They would build a model for sardines in the California current; they would build a model for Peruvian anchovies, and these kinds of different ecosystems. There was a model for menhaden in the Chesapeake Bay. It is specific to an ecosystem, which is obviously a huge question in and of itself, but then those results from those multiple different models and multiple different ecosystems were combined to create a rule that could apply to a number of different forage fish situations in general; that you might have a data poor situation or couldn't have a specific model for.

I think the reference points are sort of generalized, in the sense that they're meant to apply across a broad forage fish species without concern for a specific ecosystem. The models themselves that were built to support this larger analysis are specific to each individual ecosystem that it was built for. Does that answer your question?

CHAIRMAN BALLOU: Did you have a follow up for Jeff?

MR. HASBROUCK: Yes. Jeff, in your presentation you mentioned providing some

tables to show, and I think your term was in a common currency, what the different options will result in. Then Katie had a table that she showed relative to the different reference points. Is that the type of thing that the AP was looking for, and if so I would encourage these things to be in the next iteration of this document?

MR. KAELIN: Yes I thought Katie's table was good. It still has the values, it has targets in terms of percent, F rates and so forth. I think our discussion at the AP, and this I think was really kind of a consensus outcome, was it would be helpful to have projections in metric tons around those values. I think I just heard Katie say that that was something that the TC was going to be doing anyway.

That is exactly what we were talking about, because it is really hard to know in output where we are now; with all these various reference points, and how do you shift from MSP to unfished biomass? I think the AP was looking for some numbers too. I don't know if that's possible or not. There was broad agreement, people from different parts of the political spectrum felt the same way in our AP, I think so.

CHAIRMAN BALLOU: Katie, did you want to offer something?

DR. DREW: I was specifically referring to the BERP products rather than the TC products, but if that is something that the board and the PDT would feel would be helpful; again within a limited set of options, so it is not go out and do this for every single ecosystem reference point you can think of. But if you could limit it to a couple of options, I think we could do some projections on that if that would be helpful.

CHAIRMAN BALLOU: Just to remind the board, we're going to be having to set specifications for 2018 at about the same time that we're going to be working through these options; so

the two really do go hand in hand, and I think it's inevitable that we're going to be looking at projections that relate to these various options once we get to that point. That is my sense. John McMurray, you had a question?

MR. McMURRAY: Katie, it looks like the BERP product won't be ready until 2019, but presumably that has to go through a number of hurdles, and it has to be formally evaluated. When can we expect it to be ready for prime time or for real management use?

DR. DREW: The 2019 timeline does include the peer review process. In 2019 it is intended to compliment the most recent benchmark, the benchmark assessment for menhaden; so that they can come through together and you'll get management advice for both of those together in 2019.

MR. McMURRAY: Just a quick follow up. If we do utilize rule of thumb end term BRPs, there is no real tradeoff, right? I mean they would not impede the work of the working group nor would they push the timeline back at all.

DR. DREW: No. Again, as long as you're picking stuff that is already existing; then it would require minimal additional work for the TC.

REFERENCE POINTS FOR DETERMINING STOCK STATUS

CHAIRMAN BALLOU: Good questions; further questions for Katie or anyone else up here? Seeing none; I think I'm going to turn it back to Megan and Megan if you want to walk the board through the issues starting with reference points. Now we're at the point of really looking to make sure that the board is comfortable with the issues that the PDT will be taking up for development; beginning with reference points.

MS. WARE: What we have on this slide here are the public comment summary, but I've just taken the total column at the bottom of the

tables that I previously presented; just to again remind the board of what the various comments were in favor of. Then I've put some questions up on the screen for the board to hopefully prompt some discussion. Some of the questions are which of these options should be included in the draft amendment?

Are there any other options that should be added; for example the osprey ecosystem reference point that was newly proposed as a part of the public comment process? If the board is interested in some of these existing guidelines, which Katie was just talking about, which guidelines would the board like to pursue? Again we have kind of these three options that are on the table now, it would be very helpful for the board to kind of pick out some of the ones they are most interested in pursuing.

CHAIRMAN BALLOU: Okay. Thoughts, comments; yes, David.

MR. DAVID BUSH: I'm not prepared to tell you which ones to use, but I do have a question that might be something beneficial for folks to look at. You just asked the question I wanted to ask a moment ago about, what do we anticipate these impacts to be if we change the reference points that we're using now?

Whichever ones we do, I do think it will be helpful to preface it by if you do change this is what it's going to mean at least qualitatively. It doesn't have to be super specific, but if you go from this option to that option, this is going to potentially be a 5, 10, or 80 percent reduction from what they're catching now; something along those lines.

CHAIRMAN BALLOU: Comments, thoughts, suggestions for how we should proceed on this issue? I would remind the board that Options A, and B in the PID both ended with the line, the BERP Working Group would stop their work and turn to something else. As we think about this,

I'll just sort of pose the question. Is there any interest on the part of the board in calling upon the BERP Working Group to cease and desist in their efforts to try and develop the multi-species modeling approaches?

If so, let's get that out there. If not, we could probably just on that issue alone kind of winnow things down a bit. I'm trying to ask some leading questions here to try to get things going. Again, it seems like the options as I see them are to sort of look at current single species approach, compare that to an interim guideline approach, and compare that to the ultimate outcome that the BERP Working Group might be pursuing. My sense is that that is sort of how I see this issue framed, but I do understand. John's got a comment or question, so go ahead, John.

MR. JOHN CLARK: I just had a question, I know some of these have status quo put right into the PID. This one I was assuming was the single species reference point. Isn't that status quo? Could we take it out? We had support for keeping that in the amendment; I just wanted to make sure. Does that have to be in the amendment, because I was working under the assumption that it did have to be there?

MS. WARE: Yes. That basically is our status quo option, so I think that would remain there. I think the question is really if the board wants to remove Option B, which is go straight to the existing guidelines and have the BERP stop work on the menhaden specific ecosystem reference points.

CHAIRMAN BALLOU: What's the pleasure of the board, in terms of how to proceed? Cheri?

MS. CHERI PATTERSON: I think that there is just general conversation about the issues with the Lenfest Report that continues to not only lead this board, and I'm a short-timer so I could be misspeaking for some members; also, the public comment seemed to be very widespread to

move forward with ERPs. My recommendation would be to remove Option B out of these three.

CHAIRMAN BALLOU: Dr. Duval, did I see your hand up?

DR. DUVAL: I was just going to make the same suggestion as Cheri, to just remove Option B.

CHAIRMAN BALLOU: Let's try and do it this way. Is there any opposition to removing Option B; that is to not include it in the development of the Draft Amendment? Seeing no opposition; it seems like we've made some headway on that issue. Other thoughts and comments in terms of how to frame this issue, with particular reference I think to the range of existing guidelines; and whether that can or should be honed at all. I think there were at least two or three examples. Terry Stockwell.

MR. STOCKWELL: My sense is to leave the other three issues in there. I can't speak for all the other public hearings. As Megan's presentation displayed, there were no public comments in Maine on the reference points. I think clearly it's because most of the people in the room didn't have a clue what she was presenting.

I don't think Maine was unique. I think as we collectively have work to do to help our fishermen and our public members understand what this means, so they can make more informed the more choices they have I feel more comfortable about. I would be against whittling down this list any more.

MR. HASBROUCK: Yes I would agree with what Terry just proposed as well.

CHAIRMAN BALLOU: Okay so I have removing Option B and retaining Option D as a Full Monte so to speak, but again those are just suggestions and I'm looking for comments on those suggestions; hoping to achieve consensus in

terms of the pleasure of the board. Are there any other thoughts, pro or con, versus or relating to any of the suggestions that have been made so far? Seeing none; I guess I'll turn to Megan and see if you think that is enough guidance for the PDT or whether you feel there is a need to do more.

MS. WARE: I say we'll take this guidance for now and we'll see how the PDT is doing, and in May we'll report back. If we need to gather further comments we can do so.

CHAIRMAN BALLOU: We're about to move on to allocation, but before I do I just want to make sure, are there any other thoughts or comments on the reference point issue? We're going to obviously be coming back to this often; so this is by no means a last chance, but it is the last chance for today. David Borden.

MR. DAVID BORDEN: I just want to understand what your sense of timing is. I mean we don't have much time to deal with all these issues today, obviously. We're going to deal with whatever we deal with, and then we'll get a report, and then we'll continue the development at the next meeting.

CHAIRMAN BALLOU: That is correct. I anticipate this is going to be an iterative process and we'll get our head of steam going today as we are now doing; and we'll see where we are in May and take it from there. Okay let's move on to the next issue, Megan.

QUOTA ALLOCATION

MS. WARE: Our next issue is quota allocation, and again I have a table with the total public comments in favor of each of the options; then just reminders of other allocation methods that were recommended during the public hearing process. The questions are which of these options should be included in the draft amendment?

If the board is interested in Option E, which is the regional quotas or Option G, which is the fleet capacity quotas, it would be very helpful for the board to specify how many fleets or how many regions; and then, is the board interested in pursuing soft or hard quotas?

CHAIRMAN BALLOU: Okay the floor is open for discussion, comments. Do you like the suite of options as presented? Do you want to make any suggested changes? Let me go to Steve Train first.

MR. STEPHEN TRAIN: I have a question before we go out with this. We've talked about changing the timeline on how far back we go. If we go to an option like H, and further along we decide to change the timeline, would that change the timeline in Option H or do we have to stick to the years we chose in this?

MS. WARE: If I understand your question, Steve, what I envision for Draft Amendment 3 is kind of a mix and match; so you would pick your allocation strategy and you would pick your allocation timeframe. The goal would be to have some sort of table in Draft Amendment 3 that would show you what the result of those two mixings would be; and we would do that for every combination of allocation strategy and timeframe.

CHAIRMAN BALLOU: Steve, did that answer your question?

MR. TRAIN: Yes.

MR. STOCKWELL: Megan, on Section G under the fleet capacity, on the medium capacity fleet my comment is purse seine needs to be added into that category. State of Maine has a number of small purse seiners 35 and 40 feet. I would not consider them large capacity.

CHAIRMAN BALLOU: Duly noted, thank you. Additional comments on the suite of allocation

options that we would ask the PDT to further develop. Rob O'Reilly.

MR. O'REILLY: I want to follow up on Steve Train a little bit. Option H is one that I made the motion for in Maine, and it is really not tied to a timeline as much as to a restoration of where the TAC was before the 20 percent reduction. There was not a lot of time to say everything. But obviously one thing behind Option H was this board at the summer meeting came within an eyelash of pretty much reinstating that 212,500 metric tons by 1 percent, which the 1 percent represents the set-aside or the episodic set-aside.

That really was the driving force I think of anything else. I think all of us remember that nice day in August, and that was why in Maine the impetus for that motion. But it is tied to that situation prior to 2013 when we started on the 20 percent reduction, so thank you.

CHAIRMAN BALLOU: Additional thoughts, comments. Nichola.

MS. MESERVE: I would suggest that the board consider removing Option C, coastwide. I struggle to see how that would be an effective management tool for the fishery, given the timeline of the different state fisheries perpetuating a race to fish, et cetera.

Based on the level of comment supporting Option H, I would at least suggest that we consider removing that option the allocation strategy based on the TAC level. It had very limited favorable response and the negative response to it suggested that it could encourage the board to set a TAC higher than the science dictates, and that's not a public perception that I would hope to perpetuate.

CHAIRMAN BALLOU: Let's take those one by one. There is a recommendation to remove Option C, the coastwide option, thoughts on that. Is there anyone opposed to removing that

from the document or from further development as an option? Seeing no hands; I'm going to take that as a consensus agreement, as agreement on that recommendation and that will be taken out. On the next issue, removing Option H, do we have thoughts on that? Yes, Kyle.

MR. KYLE SCHICK: Option H is really status quo, and I think that needs to stay in there. I think most people don't even understand that that's the way we're doing things, as far as a lot of the comments go. I do think we need to leave that in there; as far as a status quo statement.

CHAIRMAN BALLOU: Interesting perspective as to whether or not it constitutes status quo, but I'll leave it at that. Rob.

MR. O'REILLY: Seriously opposed to removing Option H, and again one of the main reasons that that option is there is because in August we were just about there. I don't want to go into how it didn't happen, but I think everyone should remember that the 10 percent would have passed, except for maybe some unforeseen circumstances there.

Then we got into a – to use the word twice today from someone else – a quagmire, and we didn't get out of it until we got to Maine. But I think that even from the first allocation subgroup meeting that Robert Boyles chaired, even at that time part of the discussion that first meeting, even the second meeting was there needs to be some consideration of what is meant by allocation; because truly we were looking at a reduction, and we weren't back to where we really could look at an allocation system the way we should, which is fair.

Part of the call throughout the process, I think there were seven calls that Robert adroitly handled, because he never really made decisions; he allowed the group to have discussions and give the board guidelines. But throughout, fair and equitable were the rallying

thoughts. I think there is a certain amount of fairness, given that Option H is not finding fault with what has happened previously, but it is saying that at the time that there was the reduction; which we've all heard many times.

We went by the science we had. Our current chair at the ASMFC was the one who initiated we need to get away from the problem we're in with the threshold. From there, there was a cascade that lasted about a year. Here we are today, and I think fairness says that Option H should be in this draft document.

I think that the Technical Committee, if you heard last meeting, there was information from our board members that when on earth have you ever seen a situation where a 5, a 10, a 20, a 30 a 40 percent increase does not risk overfishing, does not risk anything; 6.45 percent was settled on. I just can't fathom taking this option out.

MR. HASBROUCK: I don't really see Option H as status quo; I see it as a variance of status quo. I thought that Option A was actually status quo. Maybe we can get some clarification on that please.

CHAIRMAN BALLOU: I have an opinion, but I'm going to let Megan offer hers first.

MS. WARE: Thanks Bob. Option A is technically status quo, so that would maintain state-by-state allocations. Option A is I'll say a twist on that where you maintain it up until the 212 metric tons is achieved, and then you would add variation on to it.

CHAIRMAN BALLOU: Yes that's my take; I didn't mean to be coy there in tossing it to Megan. I just really do feel that Option A is intended to be status quo, and Option H is proposed as a variation on that. That is my take. On this issue and I do want to try to work through this particular issue before we address any others. It has been suggested that Option H be

removed, and there has been some opposition to it and in fairness if there remains a difference of opinion, we may want to vote on this issue. I don't anticipate there being many other issues that we'll end up at this place on, so we'll handle it as the board sees fit. Dr. Duval.

DR. DUVAL: Just to address the point that Nichola brought up that there is a perception that Option H would actually allow for an exceedance of the TAC. I think it's the language that is used to describe this particular option, because as I look at it, the wording is that when the TAC exceeds 212,500 metric tons then you would do these things.

What it's really trying to describe is that when the scientifically supported TAC coming out of whatever next assessment goes above 212,000 metric tons, then you would consider potentially one of these other strategies that are laid out in here to allocate any TAC that is above that. I think it's the way this alternative is being written up that makes it sound like, hey we're just going to exceed the TAC and then we'll allocate some things around that.

I think that's what is probably leading to some public misperception that this would not be under the strategy that a TAC would not be scientifically supported. I think it is in the way that it's being described. I know I'm not being very clear, but I'm just starting to warm up right now, so I apologize, Mr. Chairman.

CHAIRMAN BALLOU: We like it when you get warmed up.

MR. ROBERT BOYLES: I'll try not to repeat what Rob O'Reilly said, but as Chairman of the Allocation Working Group, I recall specifically the conversations about this. As I read this, what this option intends to do is give everybody invested in growing this resource.

To Mr. O'Reilly's comment, this was really the conversation in our early allocation discussions

about is this an allocation or is this a reallocation? We've received comments and testimony. People still reference the difficulties of those cuts that we took in 2012. I think for the purpose of getting robust public comment, I would certainly move to keep it in and support keeping it in.

CHAIRMAN BALLOU: Before we go to a motion, which we might or might not need to do, Terry, you had a comment?

MR. STOCKWELL: Although this alternative may not be my preferred, I'm strongly opposed to removing it at this time. We may be able to mix and match with some of the other alternatives when we get together in November, so I hope it's the sense of the board to keep it in the document.

CHAIRMAN BALLOU: Nichola, it's your prerogative. Based on the conversation that's taken place, if you wish to make a motion to remove you're welcome to do so. If you wish to defer to the others on the board who have urged against that it is your call.

MS. MESERVE: I'll certainly defer on this issue, but I would suggest that the Plan Development Team look closely at the language that is used to describe it here, and maybe look to provide some additional justification for it, such as Rob has discussed today.

CHAIRMAN BALLOU: Good discussion I think. Other issues, other comments on this, yes Roy.

MR. ROY W. MILLER: I would like to take another look at Option B, state specific quotas with fixed minimum. The example was given of 1 percent of the coastwide TAC. When we have a report released to the public for comment for this amendment, I think we would be wise to put in some firmer numbers in there. Whether it's a single value or a range of values, I suspect a range would be most useful; so that the public

can see specifically what we're talking about and how it will affect individual jurisdictions.

CHAIRMAN BALLOU: Eric, did you have your hand up?

MR. ERIC REID: I wanted to comment on Option H but we've moved on from that; so thanks anyway.

CHAIRMAN BALLOU: If you want to bring it back, I'm sorry.

MR. REID: Well, as far as I read this, Option H is status quo up until 212,000 tons and then it is some other option for the amount over 212; so if we go to 220 then we're going to have status quo for the first 212, and then we're going to have another option for the next 7,800 ton or something like that. For me if I go to 212 from where we are now I get 5,000 pounds. I have a very hard time supporting H staying in the document, because I think it doesn't do anything to accomplish any kind of reallocation. I think it's inequitable.

CHAIRMAN BALLOU: Although I thought we had moved past that issue, if you wish to make a motion to remove it you're welcome to.

MR. REID: I don't have any problem letting it go forward; I just wanted my opinion out there.

CHAIRMAN BALLOU: Fair enough. I saw Dave Blazer, your hand.

MR. BLAZER: I also was thinking about offering to eliminate Option E, the regional quotas. Basically one of the issues we have with it is it kind of creates an inequitable access between the large mobile gears and the stationary gears; and just thinking that those regional options aren't going to play well.

CHAIRMAN BALLOU: Thoughts on that suggestion; removing the regional quota option. David Borden.

MR. BORDEN: I would support that suggestion for exactly the same reason.

CHAIRMAN BALLOU: Are there other thoughts on the proposal to remove the regional allocation option? Terry Stockwell.

MR. STOCKWELL: I'm opposed to it. I think it's an alternative that is worthy of further development and consideration. It was one of the options that were supported in the state of Maine's hearings. I would be remiss if I were not to express that opinion.

CHAIRMAN BALLOU: Duly noted. Cheri, did I see your hand up?

MS. PATTERSON: Yes, I agree with Terry. I think Option E needs to remain as an option for consideration for some of the states that might not see as many fish coming up through on a consistent basis.

CHAIRMAN BALLOU: Dr. Duval.

DR. DUVAL: Based on the comments from my colleagues around the table, I'm certainly supportive of keeping this in there. One thing that the PDT may want to consider is a hybrid of state specific and regional. This sort of speaks a little bit to, I think what we did for spiny dogfish where we had some regional and then state specific. I know there is some history there. But that might be one hybrid option that would satisfy folks around the table.

CHAIRMAN BALLOU: Good thought. David did I see your hand up?

MR. BUSH: I think mine was sort of heading in a different direction, but a different position on it. But if you were looking to get rid of the coastwide and the regional, both of those together, then the seasonal might as well go with it; because at that point the states would be managing their own quota. However, Michelle brought up some good points.

CHAIRMAN BALLOU: Let's stay focused on the issue of the regional option. We've had a couple of suggestions. I guess Dave; I'm going to go back to you in a minute to remove it. There was at least one other board member who supported that idea. We can certainly do this in the form of a motion. But again, having now had the benefit of the board's discussion, go back to you, Dave Blazer and see if you wish to make a motion on the issue.

MR. BLAZER: I won't make a motion. I think it's worth going forward and getting the comments at this point.

CHAIRMAN BALLOU: I see Robert your hand up, but Megan wants to offer something.

MS. WARE: Perhaps if it is the more New England states like Maine and New Hampshire, maybe Massachusetts – I'm not trying to speak for you – who are interested in regional quotas, kind of taking Michelle Duval's suggestion; do a regional quota for the New England states. Rhode Island we can discuss if you're included in that or not; and then state specific quotas for everyone else. I'm just throwing it out there as a compromise.

CHAIRMAN BALLOU: We had thumbs up on that. Robert Boyles.

MR. BOYLES: You know the allocation working group spent a lot of time developing these options. I would just – Megan, don't hate me – but I think it's important. There was a lot of thought, a lot of discussion, and a lot of back and forth in developing each of these options.

I think it's important that we develop them further with seeing what the public has to say about this most important issue. Not to throw water on ideas to toss ideas at this point. But I think this is a critical issue; a lot of time, a lot of effort, a lot of emotion and intellect went into developing these. I think it's worth considering

getting public feedback on each one as they are written.

MR. O'REILLY: I think one of the difficulties is that we don't have quantification, and so I know that Roy Miller was talking about Option B; if I can slide back for a second. We took that at face value just to look at that; and we did 1 percent. That's 53 million pounds. Everyone gets 1 percent, it is 53 million pounds.

New Jersey, Virginia and Maryland a little bit help subsidize that. All of these options probably would make a little more sense if each state or each region or north to south, however it looks, were quantified. That's been done. My staff did that. It does help out a little bit. That might be part of the situation when you're looking at these different options that next time around will help a little bit, so thank you.

CHAIRMAN BALLOU: That's consistent with my thinking is that there will be a next time in May, and as the PDT has had the chance by then to flesh things out, put some – as you say Rob – tie some numbers to some of these options that may, in fact surely will, better inform the board on how they look and whether the board remains comfortable keeping them in.

I do get the sense from everyone's comments and body language that probably best at this point to keep this together as a package, and move it forward to the PDT for further development. But I am just giving you my sense of what I've heard so far; and I'm open to other suggestions. Rob, you had a follow up?

MR. O'REILLY: A quick follow up. The reason it's important for staff to supply this is there is confidential data embedded here, so you can't reconcile everything completely if you do it on your own; but you can come pretty close.

MS. PATTERSON: Yes, considering what you just said then I think we should move Option C

back in, the coastwide quota, and leave that in there also.

CHAIRMAN BALLOU: That certainly is an easy exercise, right. I don't see any problem with that. If we move C back in, is that okay? I'm actually forgetting who exactly was advocating for removing it. But obviously a coastwide quota will be very easy to assess, it is the entire quota allocated to the entire coast. It's about a one minute exercise, if I'm not mistaken in terms of developing and presenting it.

I didn't want to do this, but we're now going back and revisiting a decision essentially we already made. Is the board per Cheri's recommendation that she just made, is the board comfortable putting Option C back in and keeping this whole suite of options under allocation together as a package for the time being?

Is there any objection to that suggestion? Seeing none; I'm comfortable moving on, unless there are any other comments or suggestions on this issue. I think this has been a very healthy and productive discussion, even though we sort of zig-zagged a bit. But I think we ended up at a healthy place, particularly given where we are in the process. David Bush.

MR. BUSH: We had mentioned earlier there about possibly quantifying some of the impacts of these. Now given the large suite of options, is this going to be too much to quantify in the timeframe, or does it need to be whittled down at least to be a workable chunk of things to handle?

MS. WARE: I think it's going to depend on the number of allocation timeframes the board is interested in on the next topic. I just want to highlight that it is a pretty tight timeline for Amendment 3. Keeping all of these options in is going to be a pretty hefty workload, and I'm not saying the PDT is unwilling to accept the challenge. But I am going to say that it would

be very helpful to get some guidance perhaps on preferred ones that you would like the PDT to work on first. I don't know if we can do all of the analysis by May, but we can try.

CHAIRMAN BALLOU: I don't think we want to revisit the same discussion. I think let's give the PDT the opportunity to give it their best shot. We'll see where we are in May, and we'll take it from there. I think if we weren't meeting in May, and this was all going to head toward a culmination for our August meeting.

I would be much more concerned that it would be too difficult an exercise, I think, in one meeting in August to try to look at everything that's been developed and try to figure out what we need to go through. Let's move on with the understanding that we're going to have a better view on where things stand at our May meeting. As Megan just indicated, the next issue is going to be very important; perhaps to try and winnow down a bit. Let's look at the next issue. Megan.

ALLOCATION TIMEFRAME

MS. WARE: Our next issue is allocation timeframe. Again, we have the different public comments on the options we had. Some of the questions are which of these options should be included in the draft amendment? If the board is interested in a longer time series, it would be very helpful for specific timeframes to be recommended. Just again, some of the examples that were given were 1985 to 2016, 1955 to 2016, pre-industrial – looking at the 1980s to 1992.

In terms of the quality of data that we have for the different time series, I think we have pretty good data going back to 1985, and we can look at the ACCSP landings going back to 1955. I'm not sure I have the greatest confidence in those, or I would want to review those between 1955 and 1985 before kind of putting that out as what allocation will be based on; but that's

something that the PDT could undertake if necessary.

CHAIRMAN BALLOU: This speaks directly to the issue that we just discussed, and that is how much of a workload is it going to be to try to develop the various allocation options. It all depends on how many timeframes or time periods the PDT is being asked to analyze; because each iteration is going to have to take a different dataset, plug it in and see how it looks.

That is why this is such an important issue to really try to think through. For what it's worth, when I ask Megan what her ideal outcome would be from this meeting on this issue, she said, "Three or four options would be a dream come true." Let's see if we can make Megan's dreams a reality. Robert.

MR. BOYLES: I'm ready with a motion if you would like.

CHAIRMAN BALLOU: I don't think we need a motion. Let's hear a suggestion, and if we need a motion we'll take it. But let's hear a suggestion. Go ahead.

MR. BOYLES: I would suggest that we look at the weighted allocation and give 50 percent of the allocation is based on the 2009 to 2011 and the other 50 percent be based on the 2012 to 2016 average.

CHAIRMAN BALLOU: Clearly I take your suggestion as being one that would keep in the weighted allocation option, and with added clarity being 50 percent to the 2009 through 2011 period and 50 percent to the 2012 through 2016 period; is that correct?

MR. BOYLES: Yes, sir.

CHAIRMAN BALLOU: With that on the floor as a suggestion, thoughts on that; and let's just again keep this as focused as possible. We're on the question of whether we should keep

weighted allocation in as an option under timeframe; and if so whether Robert Boyles' suggestion is the one that the board would support for the purposes of PDT analysis. David Bush.

MR. BUSH: I like the idea of the weighted allocation, but I would ask – I don't know – if we only include these two timeframes, how many states is that going to eliminate from having historic landings?

CHAIRMAN BALLOU: I'll leave that as a rhetorical question unless anyone has an answer.

MR. TRAIN: I have a similar sentiment to that question. The other problem I have with this weighted timeframe and weighting 2012 to 2016 so heavily is we already told everyone what they can catch under that timeframe. To base an average based on what we already awarded them doesn't seem like we're taking a long enough historical account. I would encourage that if we're going to use that 2012 to 2016, it gets a much lower weighted average than the previous years; before it was actually awarded out.

MR. MILLER: Follow up question, Mr. Chairman. If we use the weighted allocation between 2012 and 2016, does that in fact include total landings or is it just landings that counted toward the quota? In other words, do the bycatch landings count during that period?

MS. WARE: It would include total landings, so anything caught under the bycatch provision or episodic events; in addition to those landed under the TAC or the state's quota.

MR. BORDEN: It doesn't trouble me to leave weighted allocation in the mix of ideas; but I'm totally opposed to those timeframes. It's just going to get you right back in the status quo. We're crafting a public hearing document. The record is replete with numerous references to

including a longer timeframe. I would think something going back to 1985 or 1980 up to 2006 would be an appropriate timeframe to reflect those sentiments.

CHAIRMAN BALLOU: Okay so we have an alternative suggestion for how to craft that weighted allocation option. Conceivably we could ask the PDT to look at two versions, but the hope here is that we can try to hone is as best as possible. I realize how tough this is, because we're not making final decisions; we're just trying to develop options. With that additional thoughts on how to – and again if I could, just because I think it would be as helpful as possible to stay focused on one issue at a time – so on the weighted allocation option. Rob O'Reilly.

MR. O'REILLY: Well it is not going to fit everyone's situation, but what Robert indicated I think since 2013 to 2015 is post regulatory action, if 2009 through 2012 were coupled I think there is a mathematical difference there. I would say that about Robert's suggestion there, or motion, pardon me.

On the other part of it, what I started out today asking about was where the Technical Committee can give us an idea of accuracy, where the Technical Committee thinks the starting point should be. I doubt its 1985, so that poses a problem. I don't know whether it's 1995 on. But I think we need to know that as well, to explore that a little bit.

Those that have worked with the data more closely than we have, certainly have a sense of that. It's not an option, you asked about the weighted option. I do support the weighted option, but maybe it should be pre and post regulatory; if you're going to start with 2009, or even if you're going to go a little bit lower than 2009 or back further.

CHAIRMAN BALLOU: Rob, were you looking for a response as to the extent that the TC might be able to respond to your question?

MR. O'REILLY: If that's possible. I think that's really central to all of this that we need to have a starting point where we look at this, otherwise we're going to come back and there will be a lot of discussion about; well, wait a minute that's not good data because that wasn't reported back then, this wasn't done back then; so we need a starting point.

CHAIRMAN BALLOU: All right, so I'm going to look to my right and see if anyone wants to take a crack at that. Jay.

MR. McNAMEE: Yes, I'm probably not going to give you a very satisfying answer, Rob. I think what we would have to do is go back and re-vet the data with the Technical Committee; because I think we have good records by and large in certain segments. Then there are other elements of the information that I think we don't have as good a sense of. I think it is something that would need to be hashed out explicitly; we've not done that since Amendment 2.

I am not recalling what those timeframes were where we had more confidence. Certainly in the most recent period of time with the advent of ACCSP and people realizing that their history was going to mean something, I think things have improved greatly. But there is still good data back in time as well. But what I would like to be able to provide the board is a better qualification of what the tradeoffs are the further back you go, so that you can make a judgment as to whether that is quality data or not.

CHAIRMAN BALLOU: I'm about to go to Terry, but before I do I just want to note another angle that I think is very important and relevant, and that is going back as far as '85 would include data from reduction fisheries that no longer

exist. I think that is something the board should be thinking about carefully.

I think there is a possibility of standardizing the data, in essence, by identifying where those landings may have been attributable to reduction fisheries that no longer exist and removing them. That would be therefore standardizing to bait fisheries only, with the exception of Virginia, of course. I don't know easy that is to do, but I think it might be a relevant issue to at least consider.

MR. STOCKWELL: Just reflecting upon your comment there and following up on Dave Borden's comment about the public support for a longer time series. If you look back, at least in the state of Maine's records, in order to reflect the history of why we're in an episodic fishery right now, much of the landings we had were in the '80s.

If we're going to lengthen the time series, it's got to reflect that time period and pro-rate the reduction landings around that time. Likewise, if we get into a weighted allocation, a portion of it has got to reflect the time when the states had had traditional landings or counted otherwise. The one thing, I can't speak for everyone around the table. I would just as soon remove status quo, it hasn't worked. We're all bickering about it. If we want to get rid of one option let's get rid of status quo.

CHAIRMAN BALLOU: Okay a suggestion made there.

MR. BORDEN: I'll make this quick. Just to follow up on Terry's comment. I just remind everybody, we're managing this stock in an extraordinarily conservative manner; and what's going to happen is the population is going to continue to grow and expand, and I think that's what we all basically wanted.

But one of the things that it will do, it is going to redistribute northward, and especially if there is

global warming going on. It's going to end up in every little nook and cranny up in the Gulf of Maine. If you look at the historical record if those fisheries existed 20 or 30 years ago, there is no reason to expect that we won't have those fisheries again. I think we have to at least put in the public hearing document a really long timeframe that reflects that potential.

CHAIRMAN BALLOU: Okay so this is a challenge, because I do think we need to come to terms with three or four options for the PDT to develop. It is not a final decision, but it is an important step in the process, because it is going to be, I think of critical importance to the PDT as they work through the other allocation options that we just reviewed. Each one has got to be plugged with a dataset reflecting some history. I'm going to challenge the board and say I think it's time.

I would rather not get into motions and votes, although if need be we will; but we all know how those things can go. Maybe what I'm really trying to get at here is a sense as to what would be a fair and reasonable set of options that would bracket this issue from both a long term historical sense, which I don't think anyone disagrees should at least be considered, as well as something more recent perhaps; then perhaps something in between, two or three in between. That is the challenge before us right now is to try to come up with options that really cover the ground well.

MR. BOYLES: I'm going to make another pitch for a weighted allocation, and perhaps I was too earnest in trying to specify the years. I note the document says, notes that the most reliable bait landings data since 1985, so perhaps we might consider a weighted allocation timeframe with half of the weight going to what we might call a long term dataset; reaching back to 1985, and the other half a more recent time series. I would submit to you post Amendment 2. I don't know what that timeframe is, 2013 through the present. I mean clearly we've all

got our own fish to fry here, but I think it's important that we keep – well, my effort.

CHAIRMAN BALLOU: That was a new version of a weighted allocation proposal. Dr. Duval.

DR. DUVAL: I certainly support that. I was just going to follow up on Terry and say if we're looking to narrow this down, I would support removing Options A and B. I mean A is not working, and B we had lots of, well I think a good amount of public comment not in support of keeping that in. I recognize that there are some jurisdictions for which they have the greatest confidence in these most recent years; but I think we could encompass that with Option D, with the weighted allocation using something that Robert described.

CHAIRMAN BALLOU: Although it's somewhat awkward to consider removing status quo, since typically with any proposed management action you always offer status quo as your baseline, and then you work from there. I get the point and I think we are interested in trying to winnow down.

Per Dr. Duval's suggestion, what does the board think about removing Options A and B? There seems to be a lot of heads nodding in agreement. Not working, need to change, therefore remove them. Is there any objection to removing Options A and B under the allocation timeframe issue? Yes. Steve Heins.

MR. STEVE HEINS: Frankly, I don't think anything that's in this section of the document is going to work for us; just because of the problem we have with our data, time series. But certainly Option B is a little closer to a real fishery for us. I would be opposed to taking that out. You know New York's become a sanctuary state for menhaden. I really want to remedy that situation.

MR. DENNIS ABBOTT: I'm glad things are getting humorous. I know that you're a very

smart fellow, Robert, so I'm going to ask you a question; a rhetorical question. What would we all do if we just landed in this boardroom with nothing in front of us, no historical records? How would we divide up the menhaden population amongst the states?

That's somewhat truly where we should be at this point, because things have changed. It doesn't make sense that the state of New York can only catch a handful of fish; as an example, or that the state of Maine who needs bait fish, has fish off their coast and has no allocations, and has to go begging to the state of Virginia to get a million pounds to keep their lobster industry going. It really gets funny, but maybe you could answer my question what we would do if we just dropped into this room with nothing but our common sense to lead us to a solution?

CHAIRMAN BALLOU: Nope. You asked that as a rhetorical question, so you're not going to get a response. Robert.

MR. BOYLES: Dennis, may I take a swing? The intention of offering a proposal, in terms of weighting an allocation formula is to account for the historic aspects of this fishery, upon which so many of our communities and anglers and fishermen depend; and kind of looking at the long term allocation. But also recognizing that those of us in fisheries management are often criticized, you know with statements that these allocations are rusted shut, and how do we deal with that? That is where the second part of my equation, in my mind comes from, is you look at a more recent time series that accounts for – now we can't predict the future – if we could predict the future none of us would be here, I don't think. But we could account for more contemporary and more recent changes in the fishery. Dennis, that's how I would do it, honestly. But this is coming from a guy who gets 0 percent, or a state that gets 0 percent of this fishery; so it works for me.

CHAIRMAN BALLOU: If I'm not mistaken, Amendment 2 utilized 2009 through 2011, because those were the most recent three years for which data was available. Because of the way the amendment was reviewed and adopted, it missed 2012, even though it could have included 2012; if I'm not mistaken.

The first year of the actual allocation was 2013. One thought that I have is to retain a recent timeframe just for the purposes of analysis, and that would be 2009 through 2012, would be four years prior to the initiation of the new quota allocation system enacted through Amendment 2. Subsequent to Amendment 2, everybody has been essentially locked in, granted with the bycatch allowance and the episodic event.

It's arguably something that we should still consider; that is landings subsequent or in 2013 and thereafter. But I guess I just want to put on the floor for thought and consideration, just to see if we can get through this. At least for the purposes of analysis, an option that would look at 2009 through 2012, and then I definitely want to entertain further discussion on other options that would go farther back.

But is there objection to using those four years as the sort of proxy for what we looked at and tried to do through the Amendment 2 process? If there is objection, okay sounds like there is objection, so sorry for trying to be thoughtful. Dennis, see I'm not that smart; Ritchie, the problem with that approach.

MR. G. RITCHIE WHITE: I'm struggling here; I'm looking at the public input up there, which we don't seem to be following in what we're discussing. I mean longer time series and weighted is what the public said that they would like us to concentrate on. I also get very concerned about taking two options, maybe three to the public.

I mean we're almost making the decision here if you send that few a choices out. I don't have the answer of what we should do, but I don't think we're reacting to the public; unless we do a longer time series, unless we do some weighted. I think we need a couple of weighted and a couple of longer time series. That is what I think they're telling us.

CHAIRMAN BALLOU: Let me ask you back if I could. Is that fair to those states that have seen recent changes in their fisheries and those recent changes being more reflective of current realities? Does it somehow miss capturing those in the allocations?

MR. WHITE: That's where the weighted can come in. That's how you can reflect that by weighting it.

CHAIRMAN BALLOU: Thank you that was a good answer. Okay Eric Reid.

MR. REID: Thank you, Mr. Chairman, 2009 through 2011 is the reason we have 70,000 pounds of fish, 2012 to 2016, it dumbfounds me that the state of New York would like to use those years when they caught some fish, but they didn't catch very many. Rhode Island caught some fish, but we took advantage of episodic event; and if you took every pound and gave that to us in the future as a quota, we still wouldn't have 1 percent.

I can't even think about using those two datasets. I think we should go back, far back in time as we can. You take Rhode Island for an example, there was a really robust fishery in Narragansett Bay in the late seventies and the early eighties; but no one pound of those fish was landed in Rhode Island. But Narragansett Bay was full of big, giant purse seiners, and the fish went right to Belford, New Jersey.

I don't know how you take that into account, but I want to go back as far in time as possible, not so much to show the fishery and the

landings in the state, but the abundance of the resource to the state. I think we need to go back as far as possible. If '85 is the year we have the most reliable data that's as far back as I want to go. If it is more reliable further back, I want that. As far as a weighted allocation goes, as long as we are mix and matching there, I'm good with that. But to use the two short periods is insanity to me.

CHAIRMAN BALLOU: Okay so let's see if we can come to turns on how we want to proceed. There is clearly interest in a long time series. I keep bouncing back and forth between trying to figure out where we can find consensus and then try to build from there. Let's see if there is consensus on a longer timeframe, with '85 being it looks like as far back as the document suggests we might want to look.

Is there anyone who would like to make a proposal for a longer time series; that would be Option C, which was left ambiguous in the PID, and that's why we're struggling with this now, because the public supports it and it sounds like the board supports it? But now we need to put some parameters on that as to what that actually means to enable the PDT to do their work.

That is what I'm looking for. What is the longer time series? What should it be? Let's see if we can get consensus on that and then we'll maybe move back to the weighted option. Does anyone have a suggestion, and maybe it's as simple as 1985 through 2016. I see Robert making a motion; I'm not sure what he meant. We've got such a smart person here sitting to my right. Megan, given your understanding of the issue, do you have some thoughts on how best to frame this?

MS. WARE: I'll humbly offer a suggestion. Just because, as a reminder, you do have options here, it doesn't have to just be one time series. We can take out a couple options. This is just based on what I'm hearing from the board. One

option would be 1985 to 1995. That would look at the more historic time period.

The second option would be 1985 to 2016. That would be more of a longer time series. The third option would be 2012 to 2016. That would look at a more recent time period, and Option 4 would be a weighted allocation from 1985 to 1995 with 50 percent in 2012 to 2016 with 50 percent.

CHAIRMAN BALLOU: So moved. I certainly like that as a proposal, so let's respond to that. I'm sorry Megan; I was following you right up to your weighted. Your last option is the first being '85 through –

MS. WARE: Through '95 and 2012 through 2016, so basically weighting Option A and Option C.

CHAIRMAN BALLOU: Okay let's respond to that proposal. Those are four options. Let's get comment on those four options. Thank you, Megan. What are the board's thoughts on moving forward with those four? Robert.

MR. BOYLES: I like it, just a question. What about the period '95 to 2012? We do not account for that. I was wondering if that is a third interim period and you give each one of those a third, 33 percent.

CHAIRMAN BALLOU: It sounds like that is a workable suggestion. Thoughts on what Megan proposed and what Robert Boyles just amended in the form of options for timeframes. Steve Train.

MR. TRAIN: I think '85 to 2016 does that. Doesn't it, it treats every year the same? That is kind of already there, and once again I still have a problem with, and I'm not saying we need to go back to when Maine had fish. I'm saying I have a problem with weighting an average, when basically only two states are allowed to

fish, because we already awarded them quota and giving them a heavier weighted average.

If we're going to treat every year the same that's one thing. But to weight and average when basically two states had the resource. It's not that there weren't fish off of Rhode Island or there weren't fish off of Cape Cod, it's there was no quota awarded to the states, or not enough to make it worthwhile fishing. To weight and average during that period I have trouble with.

CHAIRMAN BALLOU: Understood, these are not decisions these are options to be further developed and subject to further review by the board. Dr. Duval.

DR. DUVAL: Just to bring folks back to something that Megan said previously about trying to create some matrix of how things would look between Issue 2, which is the allocation strategy, and Issue 3, which is the allocation timeframe. I think when we're viewing these different options under Issue 3, the timeframe, we're thinking in a very state-specific sort of sense.

We are also considering options that would get away from a state-specific approach, or have some hybrid in there. I know it's tough to not posture ourselves right now with regard to what timeframe options are put forward. I think these are fine, let's see what we get back from the PDT, because we're going to have to match up some of these allocation timeframes with the different allocation strategies as well.

CHAIRMAN BALLOU: Good point, I concur. Rob.

MR. O'REILLY: I just wanted to comment that again, back to what the board asked to have a working group or subgroup talk over allocation options for many, many phone calls. My interest at that time was to find out what everyone meant about capacity. It sounds to

me that everyone is looking now to where the questions were on those phone calls, not where things stand but where things will be. But in some instances things aren't there yet, and so I think we have to keep that in mind that capacity is going to be different than it has been.

For whatever reason, you know we chose to go a very conservative route when we made our increases to the quota. I think it's worth keeping in mind that by the time we get to Amendment 3, and by the time we have to set the 2018 specifications, some of these concerns might not be there. That is one idea.

The second idea, you know we're going exploring now. Although a lot of us can imagine what things will look like with these different situations of time periods, we really don't know yet; and we will find out and then we'll just have to go from there. But one thing I wanted to mention, which was unusual to me, is 2009 to '11, the status quo, and I heard we don't want to be there; and that's fine.

But generally in a plan, you know status quo is removed the next time you make that amendment. If you think of all the plans we went through, status quo was always an option. It isn't always adhered to by the time you make the amendment or the addendum, but we've sort of just thrown it out it sounds like to me; and I wanted to make sure that was the intent of the board.

CHAIRMAN BALLOU: Well right now that's on the table as a proposal to not have status quo as an option. I'm not aware of any action that I've ever been associated with where status quo was not an option. But we could be treading new ground. Let's see, I had Emerson and then I'll go to Terry and then I'll go to Mark.

MR. HASBROUCK: I have to agree with Michelle. How much time are we going to spend on Issue 3, relative to timelines and

landings for each state? How much time are we going to spend? How much effort is the PDT going to put into this, when you look at the different options under Issue 2, there are only I think three of them that are really based on a state-by-state allocation.

The rest of them move away from that. Further down the line here, my preference is probably going to be to go with one of the options under Issue 2 that doesn't lock us into a state-by-state allocation; in which case none of this is relative. But that is my thinking here in New York, and others probably think differently. But I just pose that question. How much time are we going to spend on this? How much time is the PDT going to spend on this, when we may not even chose an option that includes state-by-state allocation?

CHAIRMAN BALLOU: Good point and I don't think we should be spending much more time today; meaning I think we need to try to wrap this piece up as soon as possible. I've got two more on my list, Terrey Stockwell.

MR. STOCKWELL: A question for Megan, then perhaps comment. Prior to 1985, what is the quality of the data that you have? I mean if we're going to go cherry picking for data, Maine's big landing years were in the 1982, 3, and 4; it precludes that. I would be advocating if we're going to do a long time series to begin at 1980.

MS. WARE: I've only looked at data through 1985, so I can't really comment to it. I know it does exist or if you go to ACCSP you can look up data from 1950 onward. To the quality of that data I'm not sure. That would be something that the PDT would have to investigate, and I don't know how long that would take.

MR. MARK ALEXANDER: I object to eliminating Option A; first because there is little precedent for eliminating a status quo option. As we talk about some of these options, some of the time

periods here by which we're going to calculate new allocations, because they are so heavily based or weighted on years by which some states have already been constrained by the Amendment 2 allocations. I just think it's extremely unfair that if we got rid of the status quo option we would be burning a bridge between a meager allocation and a more meager allocation. We have to at least leave that there.

CHAIRMAN BALLOU: Yes it does seem like good form. I mean we're revisiting allocation not committing to change it. The only way to revisit is to have status quo as your Option A, and then have a series of alternatives to that to consider if the board decides to change. From my perch, I like the idea of keeping status quo as Option 1. Then running through what now turns out to be the four other options that Megan offered.

First being '85 through '95, the second '85 through 2016, the next being 2012 through 2016, and then lastly a weighted option 50 percent, '85 to '95, 50 percent 2012 to 2016; are there objections to at this point in the process tasking the PDT with moving forward with the development of the draft amendment using those timeframes? If there are no objections, I am going to take that as a consensus on this issue for now, and an acknowledgement that it's time to move on. Are there any other comments, questions, or concerns on this issue? David.

MR. BUSH: Just a very brief question. If I understood you correctly, Mr. Chairman, you said earlier that status quo would have been 2009 through 2012?

CHAIRMAN BALLOU: Eleven.

MR. BUSH: So it is '11, and we're not including '12 because?

CHAIRMAN BALLOU: Well, it's not the Amendment 2 status quo, so there has been a

lot of talk about whether 2012 should be given consideration and of course it is in the fold in one of the options, 2012 through 2016. I hope I've answered your question. Amendment 2 was based on three years, 2009 through 2011. Okay anything else on this, we're running very late and I do think we need to move on. Cheri.

MS. PATTERSON: Yes, I'll be quick. Is it possible to have the PDT also be able to make a recommendation on a different time series, since they're going to be crunching these numbers; they might see something and just make a recommendation in regards to what they're seeing?

CHAIRMAN BALLOU: Of course. I mean I think that is the purpose of our May meeting is to have them report back to us on how this exercise is going, and whether they've identified any policy issues that they think the board should take up. Let's try and move on. Mark, you had something else?

MR. ALEXANDER: Yes, I just wanted to throw another idea out there. In looking at Table 2, every state has a period of time in which the fishery may have been important to them for various reasons. Some particular gears may come and go; fish distribution may have come and gone. I would just like to add one more option for the TC to consider, and that is let each state pick its highest ten consecutive years in the range from 1985 to 2016 and that be their total that would be used as a basis for calculating a percentage.

CHAIRMAN BALLOU: Your ten highest over an 11 year period?

MR. ALEXANDER: Your ten highest consecutive years over the '85 through 2016 period.

CHAIRMAN BALLOU: Okay I'm sorry, I wrote that down wrong. I thought you said '05. Are there thoughts on adding that as an additional

option, it seems like that would take a lot of work; Megan.

MS. WARE: The only thing I'm thinking of right away is if we don't use state-by-state allocation that could get a little hairy. If we did something like seasonal quotas, which of those 15 ten year series would we use?

MR. ALEXANDER: I think you may be missing my point. Let's say for Connecticut we might choose '98 through 2007, New York may choose I don't know, '88 through '97, something like that. That is your ten highest years of landings. You would total those amounts up for each state. That would become the denominator, and then you calculate a percentage for each state based on that.

CHAIRMAN BALLOU: Well, it sounds like it can be done, no promises. It just adds yet another layer of analysis; but it sounds like it can be done if there are no objections we can add that to the list. Roy.

MR. MILLER: I don't like it, Mr. Chairman. Thank you. Let me elaborate why, because I think it could potentially reward states that had a historical reduction fishery within their borders. If we extended the time series far enough back, we could eventually even find our way to Delaware, where there was a reduction fishery in the 1950s. I don't like the idea of taking the 10 highest years.

CHAIRMAN BALLOU: Let's do this. I'm going to try and move us forward. Let's leave that out, Mark. Hold it as a thought but leave it out for now, because I'm worried about overloading the PDT in the short time they have to try and get going on this and then have something to report back to us on in May. That's a big lift in and of itself; and the more options we add the harder that is going to be. We may end up not being where we want to be in May, which is at a point where we have a better feel for this.

We've had a great discussion. I think everybody gets the issue, and I think it's time to give the PDT an opportunity to develop it, for us to go home, think about it some more and be ready to circle back to it in May. I really feel like that is the best way to move forward here. I don't sense that we're likely to make much further headway if we just keep discussing this. Is the board comfortable moving on at this point with the five options that we've identified; with the full understanding that things can change and likely will, as we move forward with this process? I am not seeing any objection so I am going to move on and we have a few other issues that we need to work through.

QUOTA TRANSFERS AND OVERAGE PAYBACKS

CHAIRMAN BALLOU: Megan, the next I think is quota transfers.

MS. WARE: All right so a similar question here. Which of the options on the screen should be included in Draft Amendment 3, and kind of ask more pointedly, is the board interested in quota reconciliation; since there wasn't much public support for it? We did hear public support for additional accountability measures, so if the board is interested in pursuing that it would be helpful to get guidance on which measures the board would be interested in, and I have listed the three that we heard most frequently on the screen.

CHAIRMAN BALLOU: Okay thoughts on this issue. Dr. Duval.

DR. DUVAL: I would like to see quota transfers stay in the document. I definitely would support some accountability measures or some guidelines for doing that. I know we faced a few challenges this year, with wanting to help out other states and wanting to try to balance meeting some of those needs with our transfers.

CHAIRMAN BALLOU: Any objection to keeping quota transfers in as an option? Seeing no

objections; it sounds like that will stay in, other thoughts on the other alternatives that have been teed up under this issue, Nichola.

MS. MESERVE: Just to say that I would like the quota reconciliation or the ASMFC facilitated process to stay in as an option. I think it was probably tough to explain to the public exactly how that works, and the benefits of it. I would like to give it another shot in the draft amendment.

CHAIRMAN BALLOU: Any objections to keeping quota reconciliation in as an option? Seeing no hands; we'll keep that in. Other thoughts on any of the other issues such as the accountability measures, does anyone on the board feel any of those should be pursued? Dr. Duval.

DR. DUVAL: My comment was definitely specifically yes transfers, but also having some accountability measures that go with that or guidelines that would – I tend to think of them more as guidelines that would help to facilitate the quota transfer process both for states requesting a transfer, as well as for states transferring the quota.

CHAIRMAN BALLOU: Michelle, do you have any thoughts on the three options that are on the screen right now? Do you think those are all viable and worth pursuing or potentially viable and worth pursuing, or do you have any specific thoughts on the types of accountability measures that you would want to see carried forward?

DR. DUVAL: I apologize; I don't feel like I can make any specific comments on the ones that are on the screen right now. I understand not being able to transfer if you've already exceeded your state quota, but I think we have states that unfortunately got into some situations this year, through no fault of their own. I would hate to see them penalized for that. I apologize; I can't provide any useful

input at this time, but I promise to sleep on it and perhaps catch up with Megan later.

MR. HEINS: As one of those states. If we get the allocations right, I could support leaving the stuff in. But under these current tiny quotas that we have, we're going to need to not look at that. I guess we could leave it in for analysis, but I'm not supporting those kinds of accountability measures when some of us are trying to manage tiny quotas. Transfers are necessary in case we go over.

CHAIRMAN BALLOU: I hear accountability measures as a sort of place holder without much insight yet as to exactly what they might look like; and the board feeling like they need more time to kind of marinate on that issue and see how things pan out. Do you think that provides enough guidance to the PDT on this issue, Megan?

MS. WARE: Yes, the PDT can kind of marinate on it and we'll maybe provide a suggestion or two in May, and if the board likes that we'll move forward, if not we'll change it out.

QUOTA ROLLOVERS

CHAIRMAN BALLOU: Great, so let's move on to quota rollovers.

MS. WARE: Through the comments there are kind of three alternatives that came forward, I would say. The first would be no rollovers, the second would be allowing rollovers, and the third would be allowing some sort of limited rollovers; so 100 percent up to a poundage level or 50 percent of your unused quota. Should the three management alternatives above be included in the draft amendment, and if the board is interested in limited rollovers, it would be helpful if you have a suggestion on what type of limitation the board would like to pursue.

CHAIRMAN BALLOU: Just as a reminder, rollovers as I understand it is in our current

plan; but have not yet been activated, even though it could. It is sort of there as an option, but the board has decided not to operationalize it pending our Amendment 3 process. Should it stay in? Obviously there seemed to be a fair number of public comments in opposition to the concept, but that doesn't necessarily dictate how we want to proceed on this. David Bush.

MR. BUSH: A lot of times I think, I hate to say it even as somebody who was a layman coming into this a long time ago. I didn't understand the concept of some of these; so when they came out to me I'm like no that's bad, and when they explained it, oh that's actually good. We have bad years, we have good years, and we have cycles.

When we have a bad year we reduce the quota, when we have a good year what do we do; or if fishery efforts shift to other fisheries, whatever. But I would certainly support a rollover, at least using a smaller percentage; maybe your bottom two that you have suggested at 5 and 10 percent. I don't think a pound for pound would be the greatest thing to do, because if we tried to fish on that the following year, we could do some major damage; but most certainly at least the lower percentages.

CHAIRMAN BALLOU: There has been a suggestion to retain rollovers, but give it the clarity that it doesn't currently have in our plan; which is to a limited extent perhaps in the 5 to 10 percent range; thoughts on that issue, Rob.

MR. O'REILLY: I support it the way it is to bring forward. If we have a healthy stock and no overfishing, no overfished condition, and a year in assessment that has been done, everything else, all the conditions say that to mirror what David just said. There is a little bit of flux maybe inter-annual flux and I would hate to see it not be able to be rolled over. I support it the way it is to get further comment later.

CHAIRMAN BALLOU: Rob, if I could ask, do you support it as an open-ended provision, or one that perhaps should have some constraints?

MR. O'REILLY: If by that you mean what's up on the board right now.

CHAIRMAN BALLOU: Yes, as far as the limitations that might be placed. Right now we have an open-ended provision. We don't have any bounds, in terms of what could be rolled over. Do you like it that way and want to keep it that way or do you want to suggest an option that might have some limitations?

MR. O'REILLY: I like the range right now. I think we can narrow it down later on. I like the range that is up there to bring forward.

CHAIRMAN BALLOU: Zero to 100 that's a good range. Additional comments on this issue. Rachel, did you have your hand up? I'm sorry.

MS. RACHEL DEAN: I just wanted to ask really quickly, should this be in the document as a status quo?

CHAIRMAN BALLOU: Yes. I think if we're going to address this issue. Obviously for each of these the question to the board is, is it an issue that should be addressed in Amendment 3, and if so I think it stands to reason that status quo is Option A; and then some variation on that would be Option B, C, D.

Right now we have an open-ended provision in our plan that allows for quota rollovers if the stock is in a healthy condition, which it currently is. But we don't have any bounds on how it might work, how much for example, might be allowed to be rolled over. I think the question that we have posed through the PID and now today to the board is, does the board want to consider any variation on the provision that is currently in our document? Rob.

MR. O'REILLY: Yes just to restate it. I'm not in favor of zero, but I think for right now we can

look at that range of 5 to 100. The history of rollovers in the ASMFC, so with dogfish there is a limited rollover percentage wise, we had issues with striped bass about six or seven years ago where the board did not choose to rollover. I think there has to be some action beyond just today to finally say; well is it going to be 100 percent, which I think it should? But for the sake of bringing this forward, I think we look at all these and wait and see what the board does.

CHAIRMAN BALLOU: Thank you, and thank you for clarifying. I'm sorry if I joked on an issue that really didn't lend itself to a joking comment. Emerson.

MR. HASBROUCK: This may be a joking comment. I agree with Rob that we should have 100 percent rollover, but we should allocate that rollover to the states based on a new allocation schedule that the PDT can develop in conjunction with this. I'm only kidding, I'm only kidding.

CHAIRMAN BALLOU: Okay, I started a bad trend. No kidding, we need to get through this now. Steve.

MR. TRAIN: I think of all the species we manage there is no species that screams for rollover more than this. We just spent the last half hour talking about awarding quota based on historical landings, and if we have a species that travels the entire length of the coast, and some years it makes the extremes and some years it doesn't; and that average landing could change dramatically if you weren't allowed to rollover for the next year when it's there.

CHAIRMAN BALLOU: Is there any objection to keeping quota rollover in with a range of options from 5 to 100 percent as ones that would be subject to further analysis and discussion? That is what I'm hearing is that there is support for at least keeping that in as a provision. Is there any objection to that?

It is essentially supporting what's on the board, but not including an option for no rollovers. I think that's what I'm hearing. It sounds like there is support for maintaining a rollover provision and looking at various limitations that the board might wish to put on it. Okay, I don't see any hands – oh, Nichola.

MS. MESERVE: Based on the overwhelming public comment, I would want to keep in the no rollover option at this time.

CHAIRMAN BALLOU: Is there any objection to keeping in no rollovers as an option? Seeing none; we'll keep this intact in the way that it was presented in the PID. As I understand it there I didn't hear any suggestions from the board to change things, so Megan does that provide enough?

INCIDENTAL CATCH AND SMALL SCALE FISHERY ALLOWANCE

CHAIRMAN BALLOU: Okay, we're off onto incidental catch.

MS. WARE: Same questions here. Which of these options should be included in Draft Amendment 3? Does the board want a management alternative which could remove the bycatch provision? This is asked because there were many comments that stated that if reallocation was properly done this might not be needed; so I'm just throwing it out there as a question, and does the board have any comments on how a small scale fishery should be defined?

CHAIRMAN BALLOU: Thoughts on this issue. John.

MR. CLARK: More of a question, Bob. On Option C, if incidental catch is included in the quota, this is to the entire TAC not toward a state quota? Is that what was meant by this?

MS. WARE: Yes, so it would depend on how the TAC is allocated, but I think if we just kept our status quo, so state-by-state allocation,

incidental catch in that state would count towards the state's quota. Once the state met that quota the fishery would be shut down for the year.

MR. CLARK: Doesn't that mean there is no incidental catch?

MS. WARE: Yes, you're right.

CHAIRMAN BALLOU: Thoughts on whether all of these options should be included in the draft amendment, or whether we should potentially even remove the bycatch provision; or continue rolling it forward. I realize how tough this is getting, particularly as the hours move on; but we're nearing the end. We've got just three more issues. Dr. Duval.

DR. DUVAL: Well, I definitely support keeping Option F in, having a small-scale-fishery set-aside in some version of what we have now. But I do think it is important that everything be counted. If we're going to have an incidental catch limit per vessel, then I want to make sure that's accounted for in the overall TAC.

CHAIRMAN BALLOU: Rob.

MR. O'REILLY: I have a different view than that and that is that for four years we've allowed this bycatch to go on of 6,000 pounds. There was just recently an addendum which allowed two licensees to have 12,000 pounds; and there was also a qualification by the board as to which gears could have the bycatch.

It has helped in a lot of states, I think, to have the bycatch. I certainly don't favor removing it. As far as counting, it is going to be counted; and while I'm thinking of it, I didn't get a chance earlier when we moved past something. But when we do our allocation, it is my assumption that what will be looked at are total landings, not just what the quota were for the states.

I assume that is the way things would be; I just wanted to mention that. But really after four years it has provided some opportunity. My understanding is it is maybe a percentage and a half if that of the total TAC. I don't think we're quite ready to disband that and so I think we have to carry some of these options forward.

But in advance I can tell you that we sort of created a situation where there is some economic advantage in many of the states because of the bycatch, and if we just put it towards the state quota; if there still is state-by-state I should say. If we put it towards that quota then the states are going to be forced to do one thing, which is disadvantage some who have been working on the bycatch; and secondly, monitoring those quotas becomes that much more difficult, which is already a pretty fair task anyway.

CHAIRMAN BALLOU: Additional thoughts on this, Mark.

MR. ALEXANDER: I support retention of Issue 6 and the options there, particularly Option F, the small-scale fishery set-aside. I think for a state like Connecticut that has a very small quota that would provide us with some relief, in the case that more equitable quota allocations can't be arrived at.

MR. STOCKWELL: I am in favor of leaving this in the document, just a word of concern to the PDT would be as you develop the options, don't make it too complicated or burdensome for the states to report a small amount of fish. We have enough trouble with our other programs.

MR. TRAIN: I think it's important this stays in. Personally I like the status quo, but to take a species that is not overfished and not overfishing occurring, and to make it a choke species on the rockfish or the weakfish fishery, and they would have to remove their pound nets or whatever else doesn't make sense to me. I think that this needs to stay.

MS. PATTERSON: I definitely think that this needs to remain. I'm just wondering if Option E is something that is very viable to keep track of. If it would be worth just removing it, just knowing the complexities of keeping track of it.

CHAIRMAN BALLOU: I see your point and it could very well be removed to kind of help narrow the options. Is there any objection to removing Option E, incidental catch defined by percent composition? Does that offer an option that really needs to be kept in, or is that just potentially offering something that would be too complicated?

Is there any objection? Seeing none; let's remove Option E, and at least winnow these down a bit. Clearly there is a sense that I get from the board that this issue needs to stay in and the suite of options as presented should stay in, with the exception of Option E. Are there any other options that the board might wish to remove? Seeing none; is the board comfortable moving along on this with those options as presented with the caveat that E comes out?

EPIIODIC EVENTS SET ASIDE PROGRAM

CHAIRMAN BALLOU: Seeing no objection; we'll move on to episodic events.

MS. WARE: I'll just verbally talk here. There were three kinds of again alternatives that popped up from the public comment; they would be no set-aside, a 1 percent set-aside, which is our status quo, or a greater than 1 percent set-aside. Should these three management alternatives be included in the draft amendment? How should we deal with New York in the set-aside, and there was also a proposal that there be a management alternative which splits the set-aside between Maine and the New England states. Is that something the board is interested in pursuing?

CHAIRMAN BALLOU: Thoughts on this, and clearly this is an issue that may or may not

become as germane moving forward, depending on how we reconfigure if the board decides to reconfigure the allocation program, this issue may no longer be as important and relevant as it was. But that said; should it remain in the document as an option?

MR. STOCKWELL: Yes to all of Megan's questions. We threw the Hail Mary to develop the episodic event, and it took several meetings longer than this to get it through. I'm hoping it will no longer be necessary when we're through, as to your guidance, Mr. Chair. But at this point we need to retain it in the document.

CHAIRMAN BALLOU: Further thoughts? It looks like I see a lot of heads nodding, that it should be retained at least for now. Is there any objection to retaining it in its current form? I guess that we would have to decide on whether that includes New York or not. I guess our status quo is New York is in.

Should we consider that the status quo approach, and put it forward in that way? I don't see any objection from New York, is there any objection from the board for moving forward with this with the understanding that at least in terms of status quo it is a program that includes New York? As everyone remembers they were added, I think over the past year.

CHESAPEAKE BAY REDUCTION FISHERY CAP

CHAIRMAN BALLOU: Okay seeing no objection; we are on to the next issue Chesapeake Bay reduction.

MS. WARE: Again, three management alternatives kind of formed themselves from the public comment, and those would be removing the cap, maintaining the cap, or reducing the cap. If the board is interested in reducing the cap, what should the reduction level be; so some of the recommendations were a recent five-year average of harvest, or the 96

million pounds, which is about a 50 percent reduction?

CHAIRMAN BALLOU: Thoughts on this issue, in terms of keeping it in, and if so with what set of options associated with the Chesapeake Bay reduction cap? Yes, Andy.

MR. ANDY SHIELS: This one has caught my fancy in looking at the document, because of the large number of comments in the public comments that were in favor of reducing the cap. As we know from the data, the cap is set at 87,000 metric tons. But in the last three years '13, '14, and '15 it ranged from 40,000 to 50,000 metric tons; which means the cap is not being achieved.

The recent five-year average harvest was proposed by some commenter's apparently. I would like to request that there be included in the analysis to use that five-year average harvest as a way to determine what an appropriate cap should be; given that the cap is not being reached now, and that the 87,000 metric tons seems unrealistic, so that's my request.

CHAIRMAN BALLOU: I'll take that as a suggestion to include an option to reduce the cap at a level that would reflect the most recent five-year harvest; thoughts on that as a proposal. Rob.

MR. O'REILLY: I'm certainly not in favor of that. The history is, and we heard the word today a little bit about localized depletion. I think most on the board know, if not everyone that there were some investments in determining this localized depletion. It was not determined. This is a coastwide stock. I think the 2009 assessment information, the advice that came out of that was that there really didn't need to be a Chesapeake Bay cap, but someone can check me on that.

However, I will also note that when there was a 10 percent and then a 6.45 percent increase in the coastwide TAC, the Chesapeake Bay cap was not increased. This had the current cap still has a reference back to the 2006 to '10 timeframe, and I can't tell you why or why not the harvest is where it is, as far as less than that; but I do think the two options should be to finally say what's it doing there, what's it's effect?

Secondly, if that's not what the board thinks about then please consider what I just said, about not taking any of the increases and also that things pretty much are status quo back to the 2006 to '10 period. On the converse of that there is something to be said for not wanting to have zeros or ones in the catch anyway, and that is really not what any fishery really wants right now.

You heard comments also that mostly the fisheries prosecuted near the mouth of the bay. You know there are a lot of instances here that if the board wants to continue on with this, then I think someone else said earlier let sleeping dogs lie. I think this is providing adequate conservation where it is, and then throw on top of that the lack of increases where every other part of the coast did increase; and I wish it was increased more, quite frankly.

CHAIRMAN BALLOU: I hit the wrong button. Rob, do you have any objection to maintaining the three options as set forth, which would be status quo current cap? Option B might be to remove the cap, or maybe in the right order Option B would be a reduced cap as proposed; Option C would be no cap at all. It seems to me that's a pretty good framing of the issue, and gives you the opportunity I think to offer your support for maintaining status quo; if I heard you correctly.

MR. O'REILLY: Yes thank you, Mr. Chair, and I don't have the same button you have so I can't do anything back to you. But I do support that

and we'll have another discussion about that later, and I hope that the board remembers the background that I just provided.

CHAIRMAN BALLOU: And that was indeed an inadvertent hitting of the button on my part, I did not intend that in your direction; other thoughts on this issue? Nichola.

MS. MESERVE: I would suggest adding a sub-option; I guess that would be to remove the rollover provision, if we're considering that for the coastwide quotas in whatever form they take. Then I would want to see a comparable option here.

CHAIRMAN BALLOU: Okay duly noted, thank you, any objection to that suggestion? Seeing none; we'll add that. Other thoughts on this issue or the options associated with it? Seeing no hands; oh, I do see a hand. Ritchie.

MR. WHITE: Just to confirm the suggestion of the recent five-year average; that's going to be in?

CHAIRMAN BALLOU: Yes that would be in for the reduced cap. Is everyone clear, any further questions?

CHAIRMAN BALLOU: Seeing none; we're on to the last issue, the research set-aside issue, which I guess sort of, was it in the PID or did it just come up through hearing? I forget.

MS. WARE: It was in the PID, it was kind of added right before we approved it for public comment. We honestly didn't receive that many comments on it, and so my question for the board is do you want to include this issue in the document? If so, do you have a suggestion on what that set-aside should be?

CHAIRMAN BALLOU: Not much in the way of public comment, is this something we want to include or not? We certainly have our fair share

of issues already. Do we want to add this one as well; thoughts on that? Terry.

MR. STOCKWELL: At this time of the day I would say no, for more than just that. It is too complicated a fishery to have an RSA to try to divide between the different fleet types. It would be an administrative nightmare, although it probably would produce some good research. At this point I don't think it's ready for primetime.

CHAIRMAN BALLOU: There is a suggestion to remove it; thoughts on that. Emerson.

MR. HASBROUCK: I would like to keep it in. The fact that we keep it in doesn't necessarily mean it's going to be adopted, but even if we do adopt it we don't have to implement it right away. This isn't something that has to be implemented in terms of a research set-aside program when we implement the new addendum. I would like to see it kept in.

CHAIRMAN BALLOU: If it's kept in I think we're going to need a percentage or some sort of quantitative component to be able to determine what it would constitute.

MR. HASBROUCK: Well it could be up to whatever percent or whatever tenth of a percent or whatever it might be, whatever percentage. Then each year it could be specified whether we're going to allocate up to that RSA or not. That would be my suggestion.

CHAIRMAN BALLOU: We have a suggestion to remove given the complexities of an RSA program; we have another suggestion to keep it in at least as an option, thoughts on those two ideas. Dr. Duval.

DR. DUVAL: I'm kind of along the lines with Terry right now. I almost feel like this might be better fleshed out in an addendum. You know that's something that the board could always consider down the road. I am a little concerned

about the number. We have a number of issues in there already. I appreciate what Emerson is trying to do, and I'm not saying that I wouldn't support it in the future. I just think right now it might be the elephant is already pretty big, getting pretty hard to eat.

CHAIRMAN BALLOU: Other thoughts on this issue? We do have a couple. David Borden.

MR. BORDEN: I agree with almost everybody. Is one of the options we have available to just framework it, put it in as a framework item that we could resurrect through a short-term regulatory action, and if that's the case I would suggest we do that. Then if we need it we'll trigger the framework and set the amount at less than 1 percent.

CHAIRMAN BALLOU: Okay, Megan indicates that makes sense so we'll try to keep it in as something that could be pursued down the road; but wouldn't necessarily be a component of this amendment. David, did you have a thought on that?

MR. BUSH: I'm sorry; I was just going to speak in support of that as well. I think it's a great tool to have, especially the direction we're headed with ecosystem-based fisheries management. It would definitely be a valuable tool if we chose to use it later, and if it's a nightmare we don't want to tackle it just stays in the closet.

CHAIRMAN BALLOU: Duly noted, is there any objection to that approach? Seeing none; I do think we have reached the end of this agenda item, and I do have to ask just in conclusion are there any other issues not included in the PID that the board feels should be addressed in the amendment?

This is now the time to offer anything new or different; and I don't see any hands going up, which means the PID did a pretty good job of framing the issues, and I do think it did by the

way. I thought it was a very well developed document. I think based on the public response the public concurs. Nice job. Is there any objection to conveying the guidance and recommendations offered today by the board to the PDT?

We do not need to have a motion on this, it is not an action item; but I do want to ask that question, to make sure the board is comfortable and in concurrence with everything we just discussed, which Megan will have the pleasure of pulling together and conveying to the PDT. They will then get to work and report back to us in May. Okay, we are done with that item. Thank you and we just have a couple of last items that I don't think will take much time; although we never know with this group.

CONSIDER RENEWAL TO ALLOW CAST NETS TO HARVEST UNDER THE AMENDMENT 2 BYCATCH PROVISION

CHAIRMAN BALLOU: Item 7 is the Cast Net Fishery Bycatch Allowance. By way of background, three years ago in February of 2014, the board passed a motion to manage the cast net fisheries for menhaden under the Amendment 2 bycatch provision for two years, 2014 and 2015. Prior to that provision sunset in 2015, the board passed another motion in the fall of 2015 to continue the provision for another year through 2016.

That means it has again sunsetted and is no longer in place for 2017. The question for the board is whether it wants to consider another extension. I believe Jim Estes may have an interest in speaking to the issue and possibly offering a motion on it. Jim.

MR. JIM ESTES: That is a good history of it. If we don't, our fishery in Florida is all cast net, and like some of the other states when we first looked at our allocation and we looked at our history, we had some under reporting; and so this was the reason that we did this. I can either tell a really, really long story about how

this would advantage our fishermen and we can do that or when you're ready I can set forth a motion.

CHAIRMAN BALLOU: I think we're ready for a motion.

MR. ESTES: I kind of thought so. **I move to continue the management of cast nets under the bycatch provision until final action on Amendment 3.**

CHAIRMAN BALLOU: Is there a second? Mark Alexander seconds the motion. Moved and seconded, is there discussion on the motion. Yes, Adam.

MR. ADAM NOWALSKY: I'll just ask; do you want it through final action on Amendment 3, or until implementation of Amendment 3? Is it possible that there would be a lame duck period, if you will, at which point we take final action on it and it is actually implemented that could impact your fishermen?

MR. ESTES: Yes thank you. I think that implementation would be better.

CHAIRMAN BALLOU: Mark, do you concur making that as a friendly?

MR. ALEXANDER: Yes I do.

CHAIRMAN BALLOU: Let's change that to until implemented, so I'll reread the motion. **Move to continue the management of cast nets under the bycatch provision until implementation of Amendment 3; motion by Mr. Estes, seconded by Mr. Alexander.** Is everyone comfortable with the motion; any questions or comments on the motion?

Is the board ready? Is there any objection to the motion? **Seeing none; the motion passes unanimously.** Thank you.

REVIEW AND POPULATE ADVISORY PANEL MEMBERSHIP

CHAIRMAN BALLOU: We are on to our last item, AP membership. We are considering a request from Maine to add a member to the menhaden AP. I guess it is either Tina or Terry. Tina.

MS. TINA L. BERGER: Hi, originally Maine requested the addition of Chris Hull to the AP. They removed Chris from consideration and they're offering Vincent Balzano. I have the AP nomination in hand and can forward it to the board once I return to the office.

CHAIRMAN BALLOU: I'm sorry, so has the nomination been provided to the board yet or not yet?

MS. BERGER: Yes.

CHAIRMAN BALLOU: Okay so the board has the nomination of Mr. Vincent Balzano.

MS. BERGER: Balzano, a commercial fisherman from Maine.

CHAIRMAN BALLOU: This would fill an existing vacancy on the AP from the state of Maine; **any objections to appointing Mr. Balzano to the AP? Seeing none; he is appointed with the unanimous support of the board.** Thank you.

ADJOURNMENT

We are on to our final item, which is other business; and please don't say yes to this. Is there any other business to come before the board?

Seeing none; is there any objection to adjourning? Seeing none; we stand adjourned. Thank you very much.

(Whereupon, the meeting was adjourned at 6:44 o'clock p.m., February 1, 2017.)



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When does fishing forage species affect their predators?

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ABSTRACT

This paper explores the impact of fishing low trophic level “forage” species on higher trophic level marine predators including other fish, birds and marine mammals. We show that existing analyses using trophic models have generally ignored a number of important factors including (1) the high level of natural variability of forage fish, (2) the weak relationship between forage fish spawning stock size and recruitment and the role of environmental productivity regimes, (3) the size distribution of forage fish, their predators and subsequent size selective predation (4) the changes in spatial distribution of the forage fish as it influences the reproductive success of predators. We show that taking account of these factors generally tends to make the impact of fishing forage fish on their predators less than estimated from trophic models. We also explore the empirical relationship between forage fish abundance and predator abundance for a range of U.S. fisheries and show that there is little evidence for a strong connection between forage fish abundance and the rate of change in the abundance of their predators. We suggest that any evaluation of harvest policies for forage fish needs to include these issues, and that models tailored for individual species and ecosystems are needed to guide fisheries management policy.

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1. Introduction

There has been considerable interest in recent years on the impact of fishing low trophic level fishes, commonly called “forage fish”, on the higher trophic level fishes, marine birds and marine mammals (Cury et al., 2011; Pikitch et al., 2012; Smith et al., 2011). For our purposes we consider forage fish to be the major small pelagic fishes and squid, but the juveniles of many species are also an important part of the diet of many predators. There is good evidence and theory to suggest that (1) fishing reduces the abundance of targeted fish stocks, and (2) reproductive success of predators is affected by the local density of their prey. The logic seems clear, lower fishing pressure results in more forage fish in the ocean, and thus better reproductive success and higher abundance of the higher trophic level predators. Pikitch et al. and Smith et al. used

ecosystem models to quantitatively evaluate the impact of fishing forage fish on their predators, and both papers suggested that forage fish should be harvested at rates lower than would provide long term maximum yield of the forage fish.

Although it would therefore seem obvious that fishing forage fish would have a negative effect on the abundance of their predators, the empirical relationships between forage fish abundance and predator abundance, or population rates of change, have not been examined in a systematic way. There is evidence in the literature (Cury et al., 2011) showing changes in reproductive success in relation to local food abundance, but the assumed link between the changes in total population size of predators and the total forage fish abundance has not been evaluated against historical trends in abundance. Another way to explore the impact of fishing forage fish is to examine the population trends in a dependent predator. Given that most forage fish in the U.S. have been harvested more heavily in the past than they are at present, if predator populations increased under past fishing pressure on forage species, then fishing at those levels did not preclude the ability of the predators to increase. For many reasons, the predators of most concern should be those others that have been decreasing in abundance over recent decades.

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Most forage fish are well documented to undergo substantial fluctuations in abundance unrelated to fishing (Schwartzlose et al., 1999), a feature that is ignored in the ecosystem models used to evaluate ecological impacts of fishing which were mentioned above. This was recognized as a deficiency by the authors of the Pikitch et al. paper. “Major fluctuations in forage fish abundance have been observed and recorded for centuries. Forage fish can respond dramatically to shifts in oceanic conditions and may exhibit strong decadal-scale variability. Forage fish may be capable of responding quickly to favorable environmental conditions, but their populations cannot be expected to maintain a steady state and can plummet when conditions become unfavorable” (Pikitch et al., 2012, page 84).

Such fluctuations can range over three orders of magnitude. Vert-pre et al. (2013) showed that for about 50% of fish stocks, there were major changes in the productivity of the stocks unrelated to fish stock size. Given great natural variability in abundance of forage fish, a key question is how much does fishing impact abundance relative to the natural fluctuations?

The commonly accepted assumption that higher spawning stock sizes lead (in expectation) to higher recruitment (Myers and Barrowman, 1996; Myers et al., 1994) is implicit in EwE models that do not break taxonomic groups into size or age groups, and explicit in ATLANTIS models and EwE models that do break a group into stages. The assumption that increasing spawning stock size will lead to higher recruitment has been challenged first by Gilbert (1997) then by Szuwalski et al. (2014) who showed that most stocks do not exhibit a stock recruit relationship and of those that do, a large fraction of them have shifts in average recruitment over time. Myers et al. (1999) estimated that forage fish show clear relationships between spawning stock abundance and recruitment, but low spawning stock and low recruitment can be explained equally well by low recruitment generating low spawning stock (Szuwalski et al., 2014). If abundance of forage fish and their recruitment are primarily environmentally driven, then the impact of fishing on the food supply of higher trophic level predators is mainly through depletion of prey cohorts by fishing, not by reduced recruitment.

In addition to the assumption of a direct link between spawning stock and recruitment, the EwE models used to evaluate the impacts of fishing forage fish have a direct link between forage fish abundance, predator consumption and predator abundance implicit in the dynamics. However, few of these models have considered the life histories of the forage fish and their predators in enough detail to capture several key issues in the interaction between fishing on forage fish and impacts on dependent predators. None of the 11 EwE models used by Pikitch et al. considered the size or age structure of the forage fish (Essington and Plaganyi, 2013) and in five cases the modeling was not conducted at the species level, but instead grouped up to eight forage species, amongst which many may exhibit negative covariation in abundance. Indeed, two of the authors of the Pikitch et al. study subsequently questioned the use of “recycled” ecosystem models (i.e., those developed for other purposes) to understand the impacts of forage fish abundance on their predators; “We find that the depth and breadth with which predator species are represented are commonly insufficient for evaluating sensitivities of predator populations to forage fish depletion” (Essington and Plaganyi, 2013). All of the models used by Pikitch et al. were such recycled models.

A key factor determining reproductive success of many birds and marine mammals is the local density of prey within their foraging range of the breeding sites (Thaxter et al., 2012). So in addition to the variability induced by natural fluctuations in total abundance of the forage fish, the spatial availability can also vary, and two breeding colonies feeding on the same stock may see strikingly different

food availability. Local density can either amplify natural variability in food supply, or the predators may be able to concentrate on high density locations even at low prey abundance, thus buffering them from the fluctuations in total abundance. Despite the importance of local forage abundance for central place foragers, there is little evidence relating abundance of forage species to the abundance of mobile predators. Jensen et al. (2012) cited several of the studies showing the importance of local abundance to central place foragers but also reviewed the empirical literature relating marine predatory fish abundance to abundance of their prey and found few clear links apart from a decline in cod productivity following the collapse of both herring and capelin in the Barents Sea (Hamre, 1994; Hjermann et al., 2004).

This brings us to another important factor in the life history of forage fish and their predators that is neglected in almost all of the EwE models. Some marine predators consume forage fish at sizes and ages before the fishery harvests them. This is most true for predatory fish and marine birds, where mouth gape sizes limit the maximum size of prey that can be eaten, and probably least true for marine mammals. As an example, Nelson et al. (2006) showed that the mean size of Atlantic menhaden (*Brevoortia tyrannus*) eaten by striped bass (*Morone saxatilis*) in Massachusetts was 8.4 cm but the mean size taken by the fishery was 28 cm. In the extreme, if the recruitment of forage fish is not affected by fishing, and the predators consume sizes smaller than taken by the fishery, then the fishery would have no impact on the food available to the predator. In other words, the fishery harvests only those individuals that have survived and grown large enough to escape most of their predators.

To summarize, the impact of fishing forage fish on dependent predators will depend on (1) the alternative prey available to the predators, (2) the impact of fishing on the recruitment of the forage fish, (3) natural variability in recruitment, (4) the relationship between abundance of the forage fish and what is actually available to the predators, (5) the overlap between sizes/ages eaten by the predators and those taken by the fishery, and (6) other factors that may limit the predator population abundance.

In this paper we explore these issues for a range of U.S. forage fish and their predators. First, we examine the relationship between forage fish abundance and predator population growth rates, then we evaluate the recruitment pattern for each forage species and evaluate the evidence regarding the relative importance of fishing and environmental influences on the recruitment. Thirdly, we compare the size/ages taken by predators to those taken by the fishery. We then model the changes in forage fish abundance as a function of different assumptions regarding the dependence of recruitment on fish stock size and environmental variability to generate scenarios of forage fish abundance as a function of fishing pressure. Finally we examine how much the abundance of forage fish in the target size range is affected by fishing.

2. Materials and methods

Eleven species of forage fish in the U.S. were selected for analysis, and for each of these species we conducted a literature review to identify: (1) what predators eat those species, (2) the importance of the forage fish species in the diet of the predator, and (3) the size range of each forage species found in the diet of the predator. The selected forage species were the Pacific sardine (*Sardinops sagax*), Northern anchovy (*Engraulis mordax*), Market squid (*Doryteuthis opalescens*), Pacific hake (*Merluccius productus*), Pacific chub mackerel (*Scomber japonicus*), Atlantic herring (*Clupea harengus*), Atlantic menhaden, Atlantic mackerel (*Scomber scombrus*), Shortfin squid (*Illex illecebrosus*), Longfin inshore squid (*Doryteuthis pealeii*) and Gulf menhaden (*Brevoortia patronus*).

2.1. Literature search

A systematic review of the literature was conducted by querying the Academic Search and Google’s online search engine for articles on prey and predators occurring in the California Current, U.S. East Coast and the Gulf of Mexico. Queries included topical keywords for diet and abundance for identified predators in the geographic range.

2.1.1. Diet

We recorded data from 127 relevant citations in peer-reviewed journal publications, books, technical reports, theses and from online databases (e.g. www.fishecology.org in September and October 2015). Data included individual occurrences of a predator eating a prey. Each record includes information on the citation, study location, date (year and season of observations), sampling methods (e.g. stomach content, visual observation), predator (life-history stage, size/age/sex, sample size) and prey (amount consumed and size eaten, usually estimated through otoliths or beak measurements).

The importance of a prey species in the diet of a predator was defined as the mean proportion of a forage fish consumed by a specific predator reported in a specific unit for measuring consumption. When more than one unit of consumption was available, the following order of preference was set: prey proportions by mass were preferred, followed by numbers, energetic contribution and finally frequency of occurrence.

2.1.2. Abundance of predators

The predators for which the importance of a single prey species was equal to or greater than 0.2 were selected as “dependent predators”. We identified 86 different populations of dependent predators of which 52 are commercially important fish species or stocks, 33 are top predators (seabirds and marine mammals) and one is an invertebrate.

Abundance data for the dependent predators were obtained from several sources. For marine mammals, data were obtained primarily from the NMFS Marine Mammal Stock Assessments (Caretta et al., 2006; Waring et al., 2015). For commercially important fish species, data were obtained primarily from the RAM Legacy Stock Assessment Database (Ricard et al., 2012). Other sources of abundance data for seabirds and other species include agencies and government websites, peer-reviewed journal publications, books, technical reports and theses. Information on abundance trends were found for 50 of the 86 dependent predators species identified in this study.

An index of abundance was calculated using available data such as total and spawning stock biomass, density, estimated number of individuals, counts, pup production, nesting pairs, standardized catch per unit effort, breeding pairs and number of nests. The sources for these data are shown in supplemental Table S1.

Graphical data were extracted with DataThief III (Tummers, 2006) when original data in tabular form could not be found.

We compared the population per capita rates of change of the predators to the abundance of forage fish. For exploited species, we used the surplus production, should be there instead of; defined as the change in abundance from one year to the next, plus the catch. The relationship between forage fish abundance and predator rate of change was assessed using a linear model and the significance of the slope was tested using an F test.

2.2. Recruitment analysis

We analyzed the estimated forage fish abundance and subsequent recruitment to assess if recruitment was better explained by environmental variability or fish abundance. The

spawner-recruit data were obtained from the RAM Legacy Stock Assessment Database (www.ramlegacy.org) for the forage fish of concern. Four models were fit to the data and compared using AIC: a traditional Beverton-Holt stock-recruitment model, a hockey-stick model, a model that assumes that recruitment is random and independent of stock size and a regime-shift model. In the latter, the presence of regimes was identified by estimating breakpoints in the recruitment time series where the statistical properties (mean and/or variance) change. Different segmentation algorithms exist to search over the entire parameter space for the number and location of breakpoints that maximize the likelihood of the data subject to a penalty to prevent overfitting. We used the PELT algorithm (Pruned Exact Linear Time) proposed by Killick et al. (2012) implemented in the “change point” library (Killick and Eckley, 2014) for the statistical software R (R Core Team, 2014). Differences in both the mean and the variance among segments were allowed and model selection was based on AIC while constraining the minimum segment length to either 5 or 10 years. The PELT method was preferred over the simpler sequential *t*-test method of Rodionov and Overland (2005) used by Vert-pre et al. (2013) because the latter does not search over all possible combinations of breakpoint locations.

Stock-recruitment models (other than regime shift) were fitted using the software AD Model Builder (Fournier et al., 2012). For each model we computed the likelihood and the AIC assuming lognormal errors. The number of parameters in the regime-shift model was computed as the number of breakpoints plus the number of means and variances estimated. We excluded from the analysis the squid as well as the Northern anchovy, because the time series of abundance data available for these stocks were discontinuous.

2.3. Impacts of fisheries on prey abundance

We gathered biological and fisheries information on six species of forage fish and implemented a simulation model to quantify the reduction in food availability to predators from fishing given the size selectivity of both the fishery and the predators. An age structured model was used to simulate the effects of different fishing mortalities on fish abundance. The numbers of individuals of age *a* at time *t* were modeled as:

$$N_{a+1,t+1} = N_{a,t} \exp(-M + Fv_a) \quad (1)$$

where *M* is the natural mortality, *F* the fishing mortality and *v_a* is an age specific selectivity. Two different scenarios of recruitment were simulated:

$$\begin{cases} N_{1,t} = R_t & \text{Scenario 1} \\ N_{1,t} = \frac{aSE_{t-1}}{1 + bS} & \text{Scenario 2} \end{cases} \quad (2)$$

In Scenario 1, we assumed that recruitment was independent of the spawning biomass, while in Scenario 2 we used the standard Beverton-Holt stock-recruitment equation. Spawning stock biomass was calculated as:

$$S_t = \sum_a w_a m_a N_a \quad (3)$$

where *w_a* is the average weight of an individual of age *a* and *m_a* is the proportion of sexually mature individuals of age *a*. Weight at age was calculated as a power function of the average length

$$w_a = \alpha L_a^\beta \quad (4)$$

Length at age was modeled using the standard Von Bertalanffy growth equation.

$$L_a = L_\infty (1 - e^{-k(a-t_0)}) \quad (5)$$

Table 1
Stock specific parameters used in the simulations. L_{∞} is asymptotic length, K is the Von-Bertalanffy growth rate, t_0 = scale parameter of growth curve, M = instantaneous natural mortality rate, α = length to weight scale parameter, β = length to weight power.

| Stock Parameters | Atlantic Herring | Atlantic Menhaden | Gulf Menhaden | Pacific Chub Mackerel | Pacific Hake | Pacific Sardine |
|-------------------------------|---|--|--|--|---|--|
| L_{∞} (cm) | 32 | 36.5 | 26.25 | 39.2 | 52 | 23.7 |
| K | 0.36 | 0.363 | 0.39 | 0.39 | 0.32 | 0.318 |
| t_0 (years) | -1.17 | -1.3 | -0.99 | -2 | 0 | -2.01 |
| M | 0.52 | 0.45 | 1.1 | 0.5 | 0.213 | 0.4 |
| α ($\times 10^{-6}$) | 8.21 | 4.07 | 7.41 | 2.7 | 5 | 7.52 |
| B | 3 | 3.2 | 3.19 | 3.4 | 3 | 3.2332 |
| Maturity at age | 1 = 0; 2 = 0.01; 3 = 0.21; 4 = 0.81; 5 = 0.98; 6+ = 1 | <2 = 0; 2 = 0.12; 3 = 0.85; 4+ = 1 | <2 = 0; 2+ = 1 | 0 = 0; 1 = 0.48; 2 = 0.63; 3 = 0.76; 4 = 0.85; 5–6 = 0.91; 7+ = 1 | 1 = 0; 2 = 0.01; 3 = 0.21; 4 = 0.82; 5 = 0.98; 6+ = 1 | 1 = 0; 2 = 0.99; 2+ = 1 |
| Selectivity at age | 1 = 0; 2 = 0.18; 3 = 0.54; 4 = 0.7; 5+ = 1 | <2 = 0; 2 = 0.1; 3–4 = 1; 5 = 0.19; 6+ = 0 | 1 = 0.05; 2 = 1; 3–4 = 0.35; 5+ = 0 | 0 = 0.5; 1+ = 1 | 1 = 0.07; 2 = 0.18; 3 = 0.37; 4 = 0.62; 5 = 0.81; 6 = 0.92; 7 = 0.97; 8+ = 1 | 1 = 0.18; 2 = 0.37; 3 = 0.62; 4 = 0.81; 5 = 0.92; 6+ = 1 |

A global food depletion estimate can be calculated by comparing the equilibrium biomass for a given F with the equilibrium biomass in the un-fished state. However, as predators may select prey by size, we are interested in assessing the food depletion for different prey's length intervals. We generated a length composition of the population by assuming that the size of individuals within an age class is normally distributed with mean L_a and standard deviation σ_a . For simulation purposes we assumed a constant coefficient of variation in size-at-age of 20%. We calculated the numbers of individuals (Eq. (6)) and the biomass (Eq. (7)) in the size interval $l_1 - l_2$ as:

$$N_{l_1-l_2} = \sum_a N_{a,l_1-l_2} \quad (6)$$

$$B_{l_1-l_2} = \sum_a w_a N_{a,l_1-l_2} \quad (7)$$

For each fish stock we ran the model for 5000 years under different fishing mortalities and randomly sampled 500 iterations to assess the reduction in the food available to predators. Under Scenario 1, the model was forced using the historical recruitment estimated in stock assessments in order to account for natural variability (we sequentially repeated the recruitment time series to achieve 5000 observations). To perform the simulation under the assumption of a stock recruitment relationship (Scenario 2) we used the spawner-recruit curve best fit to the stock assessment data. To account for natural variability, we calculated the log residuals and used them as multiplicative errors. Similar to Scenario 1, we sequentially repeated the observed errors to achieve 5000 observations.

Our simulations are a simplification of the stock dynamics, since key parameters such as selectivity, growth and natural mortality can be time, size or density dependent. For each fish stock we gathered mortality, growth, maturity, vulnerability to fishing and weight-at-length parameters from stock assessment documents. We ran the simulations for only one fishery for a given stock; when more than one fishery targeted that stock, we used the vulnerability to the fishery that accounted for the largest fraction of the catch.

We calculated the biomass depletion for four size ranges, (small, small-medium, medium-large and large fish) set at the quartiles of the length frequency distribution in the un-fished state. We explored the impacts of fishing under $F = 0$, $0.5 F_{MSY}$, and F_{MSY} . When possible, the value of F_{MSY} was calculated using the stock-recruitment, maturity and growth parameters used in the simulations. For stocks where the stock-recruitment relationship was a flat line, the calculation of F_{MSY} was unreliable, and instead we used the value estimated as part of the stock assessment which was often a proxy. For each F , we computed the median biomass compared to median

biomass in the un-fished state. Parameters used in the simulations are summarized in Table 1.

3. Results

3.1. Diet data compilation

The literature review yielded 1041 predator-prey pairs that contained information on predators' diet (size eaten and/or proportion of the prey in the diet). For a given predator and prey species, the database can contain several records, since we included an individual entry for the same pair of species if data were obtained in different locations and/or different years or when the data were recorded for different sexes or stages in the life cycle. These records corresponded to 119 species of predators and 11 species of prey, and included multiple years of data for the same species in one location as well as data for one species from different regions. The number of individual predator species identified for each forage fish ranged from five for the Gulf menhaden to 46 for the Northern anchovy.

We identified 203 prey-predator pairs where the mean proportion of a prey item in the diet in a given location was larger than 0.2 (Table S1).

3.2. Empirical relationships between predator and prey trends

Trends in abundance of both predator and prey covering overlapping periods were available for 50 predator-prey pairs out of the 203 pairs where the proportion of a specific forage fish in the diet was larger than 0.2. When multiple abundance time series were available we selected the longest one that did not present gaps in the data. Trends in abundance of most dependent predators were either growing, stable, or fluctuating between periods of high and low abundance (Figs. 1 and S1). Six cases showed a clear decreasing trend in the predator's abundance index over time: Atlantic cod (*Gadus morhua*) in Georges Bank, sablefish (*Anoplopoma fimbria*) on the Pacific coast, mako shark (*Isurus oxyrinchus*), silky shark (*Carcharhinus falciformis*) and spiny dogfish (*Squalus acanthias*) in the N.W. Atlantic, and yellowtail rockfish (*Sebastes flavidus*) on the Pacific coast. No obvious relationship between the prey and predator abundance was apparent in the majority of the cases (Fig. 1 insets).

Although a positive relationship between prey and predator abundance can be interpreted as evidence of trophic dependence, a better way to assess the role of prey abundance in the population dynamics of the predator is to analyze the predator population rate of change or surplus production against the abundance of the

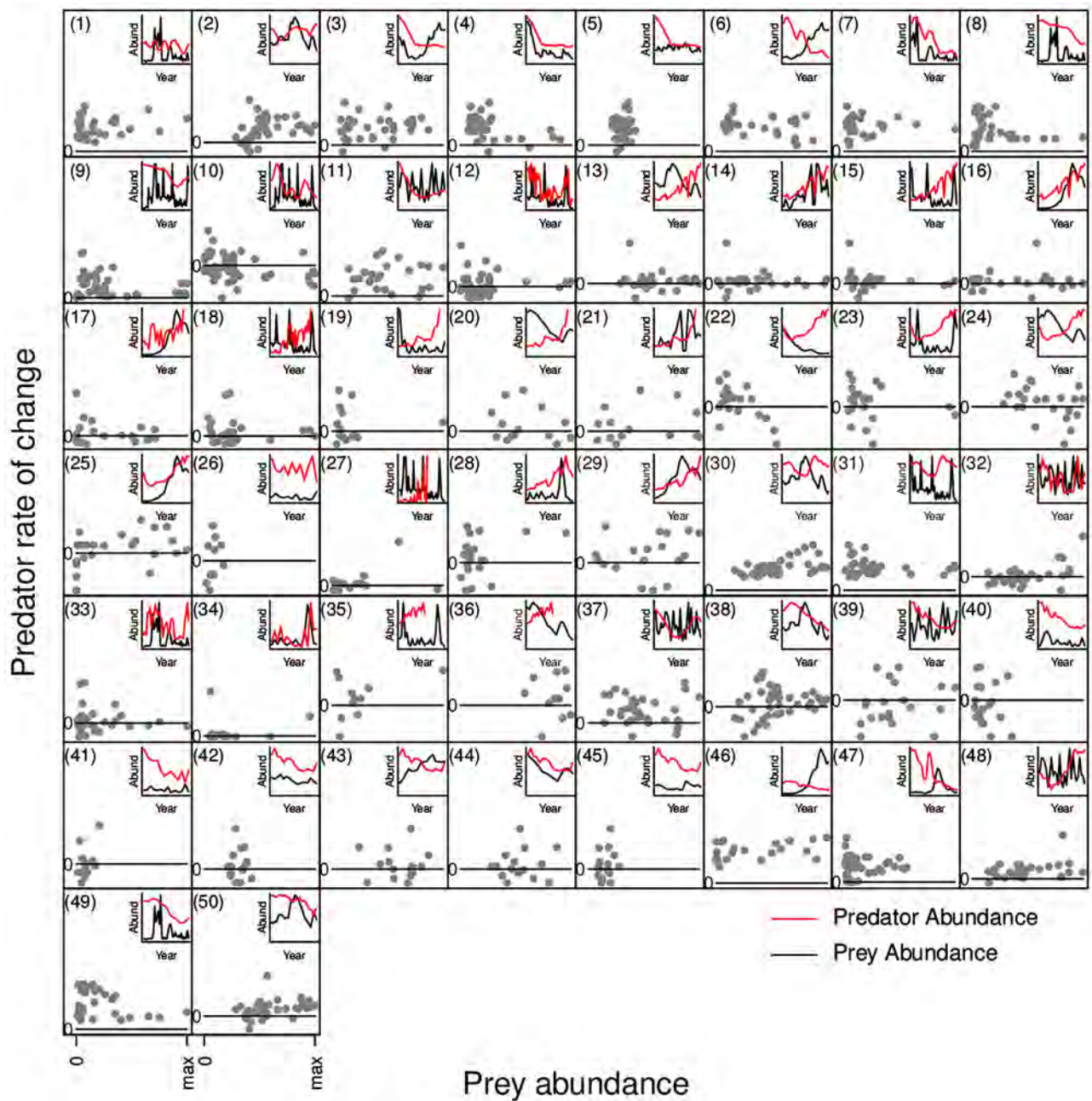


Fig. 1. Relationship between the annual surplus production of the predators and prey abundance. Each panel shows a pair of temporally overlapping predator rate of change and prey abundance data (grey dots). The subplot in each panel shows the relative trend in the abundance index for the prey (black line) and the predator (red line). (1) albacore tuna and shortfin squid; (2) arrowtooth flounder and Pacific hake; (3) Atlantic bluefin tuna and Atlantic herring; (4) Atlantic bluefin tuna and Atlantic mackerel; (5) Atlantic bluefin tuna and Atlantic menhaden; (6) Atlantic cod and Atlantic herring; (7) Atlantic cod and shortfin squid; (8) bigeye tuna and shortfin squid; (9) black rockfish and Northern anchovy; (10) bluefin tuna and Northern anchovy; (11) bluefish and longfin inshore squid; (12) Brandt's cormorant and Northern anchovy; (13) California sea lion and Pacific hake; (14) California sea lion and market squid; (15) California sea lion and Northern anchovy; (16) California sea lion and Pacific sardine; (17) California brown pelican and Pacific sardine (18) California brown pelican and Northern anchovy; (19) common murre and Northern anchovy; (20) common murre and Pacific hake; (21) common murre and market squid; (22) thresher shark and Pacific chub mackerel; (23) thresher shark and Northern anchovy; (24) thresher shark and Pacific hake; (25) thresher shark and Pacific sardine; (26) dolphinfish and shortfin squid; (27) elegant tern (chicks) and Northern anchovy; (28) humpback whale and Northern anchovy; (29) humpback whale and Pacific sardine; (30) North Pacific albacore and Pacific hake; (31) North Pacific albacore and Northern anchovy; (32) offshore hake (mid Atlantic bight) and longfin inshore squid; (33) offshore hake (mid Atlantic bight) and shortfin squid; (34) Pacific bonito and Northern anchovy; (35) Pacific harbor seal and Northern anchovy; (36) Pacific harbor seal and Pacific hake; (37) Gulf of Maine pollock and longfin inshore squid; (38) sablefish and Pacific hake; (39) shortfin mako shark and longfin inshore squid; (40) shortfin mako shark and shortfin squid; (41) silky shark and shortfin squid; (42) spiny dogfish and Atlantic menhaden; (43) spiny dogfish and Atlantic herring; (44) spiny dogfish and Pacific hake; (45) spiny dogfish and Atlantic mackerel; (46) striped marlin and Pacific sardine; (47) striped marlin and Pacific chub mackerel; (48) summer flounder and longfin inshore squid; (49) swordfish and shortfin squid; (50) yellowtail rockfish and Pacific hake.

prey. The data set showed almost no evidence of a strong positive relationship between the predator surplus production and the prey abundance (Fig. 1). While in half of the cases the slope estimates were positive, in only four cases did we find a statistically

significant positive relationships between predator and prey abundance (Fig. S2) (with no correction for multiple comparisons): arrowtooth flounder (*Atheresthes stomias*) and Pacific hake (Figure 1.2), yellowtail rockfish and Pacific hake (Figure 1.50), North Pacific

Table 2
Summary table for the regime shift (shifts), random, Beverton-Holt and hockey-stick stock recruitment (SR) models. We recognize that this violates the independence assumption of the AIC, but believe it is indicative of relative strength of evidence for competing hypotheses. N is number of years in the time series and Corr is the coefficient of auto-correlation of the logarithm of recruitment. N shifts = number of estimated breakpoints.

| Species | Area | N | Corr | N shifts | AIC Shifts | AIC BH | AIC Hockey | AIC Random | Winner |
|-----------------------|--------------------|----|-------|----------|------------|--------|------------|------------|-----------|
| Pacific chub mackerel | California Current | 79 | 0.66 | 6 | 166 | 201 | 206 | 239 | Shift |
| Atlantic herring | US East Coast | 37 | 0.34 | 2 | 76 | 81 | 81 | 85 | Shift |
| Gulf menhaden | Gulf of Mexico | 35 | 0.06 | 1 | 20 | 22 | 22 | 20 | Random |
| Atlantic menhaden | US East Coast | 51 | 0.50 | 3 | 63 | 83 | 91 | 89 | Shift |
| Pacific hake | California Current | 47 | -0.29 | 1 | 166 | 168 | 168 | 166 | Random |
| Pacific sardine | California Current | 27 | 0.84 | 2 | 85 | 63 | 62 | 112 | Hockey |
| Atlantic mackerel | US East Coast | 47 | 0.52 | 2 | 143 | 129 | 129 | 155 | BH/Hockey |

albacore (*Thunnus alalunga*) and Pacific hake (Figure 1.30), and off-shore hake (*Merluccius albidus*) (mid Atlantic bight) and longfin inshore squid (*Doryteuthis pealeii*) (Figure 1.32). The percent variance explained in these four cases ranged from 10% to 34%. The 95% confidence bounds on the estimated slope (y and x axes in units of standard deviation) were often wide, with upper bounds exceeding a value of 0.5 in close to half of the cases.

3.3. Recruitment analysis

For the seven species assessed, the stock-recruitment models outperformed the regime shift and the random models in two cases: Pacific sardine and Atlantic herring (Table 2). For the other five species the regime-shift or the random model had lower values of AIC. This result was independent of the minimum segment length specified for the changepoint analysis (shorter segment lengths yielded larger number of breakpoints, but the general result remained the same).

The hockey-stick and the Beverton-Holt models performed similarly when fit to the stock-recruitment data. Only in three cases – Pacific chub mackerel, Atlantic herring and Pacific sardine – was a breakpoint estimated by the hockey-stick model, indicating a decrease in recruitment below a given stock size. The breakpoint was estimated respectively at 17%, 19% and 13% of the maximum value of spawning biomass in the series. For Atlantic mackerel, a linear decrease in recruitment over the entire time series was favored with no identifiable breakpoint. The species for which evidence of decreased recruitment at lower spawning stock size was strongest also showed a highly auto-correlated recruitment (Table 2). By contrast, no evidence of a decrease in recruitment at low stock abundance was observed for the two menhaden stocks and for Pacific hake. Pacific hake and Gulf menhaden both had the lowest AIC for the random model while a regime-shift model was favored for Atlantic menhaden. Pacific chub mackerel and Atlantic herring also had the lowest AIC for the regime-shift model.

Pacific chub mackerel, Atlantic mackerel and Pacific sardine do show significantly lower recruitment at lower spawning stock size. However, each of those species shows highly auto-correlated recruitments that are consistent with environmentally driven regime changes and the apparent spawner recruit relationship may in fact simply be that periods of low recruitment lead to periods of low spawning stock size.

3.4. Simulated impacts of fisheries on prey abundance

For the six examples considered, the simulations conducted assuming recruitment is independent of spawning stock (Scenario 1) suggest that the abundance of small and small-medium size fish is unaffected by fishing (Fig. 2) and even in the absence of fishing the abundance of all sizes fluctuates greatly. Typically, the small sizes tend not to be caught in the corresponding fisheries (Fig. 3). In contrast, the abundance of large fish can be substantially reduced when F is set at F_{MSY} . When a stock-recruitment relationship is

assumed (Scenario 2), in most cases a reduction in fish abundance was observed for all size ranges, the magnitude of which increased with fishing pressure.

Additionally, variability was reduced as fishing pressure increased. The two exceptions were Pacific hake and Gulf menhaden (Fig. 2). For these two species, the fit of the Beverton-Holt curve was flat in the range of observed abundances, which is similar to the assumption that recruitment is independent of stock size (Fig. 4). The fishery simulated for Gulf menhaden targeted almost exclusively individuals of age 2 (approximately 15 cm, Fig. 3), while the population was mainly composed of 0+ (small) and 1+ (small-medium) fish. This is most likely the main reason why abundance of fish does not respond to fishing pressure for this stock. In the case of Pacific hake, a substantial fishing impact was observed only for medium-large and large fish, which corresponds to the sizes selected by the fishery.

These results emphasize the relevance of the size composition of the diet when the fishing effects on predators are assessed. Unfortunately, data on the size compositions of diets are scarce. We could only find 74 records of size of forage fish prey (Fig. 3). While some predators selectively eat small fish (usually not selected by the fishery), others prey on a large range of forage fish sizes. The degree of overlap between fisheries and predators is highly variable. For example, most predators foraging on market squid and Pacific hake do not seem to be in direct competition with fisheries. On the other hand, Pacific chub mackerel, Pacific sardine and Atlantic herring fisheries seem to overlap with predator's preferred prey sizes.

4. Discussion

4.1. Trends in predator populations and growth rates of predators vs prey

For the populations studied, we found little evidence that the abundance of individual species of forage fish was positively related to the per capita rate of change in their predator populations. Of the 50 comparisons, we found five that had a significantly positive relationship between prey abundance and predator rate of change. The fact that only four of the time series of predator abundance showed a downward trend also provides some evidence that historical fishing practices on forage prey species have not led to major predator decreases.

Given the very large range of abundance fluctuations seen in many of the forage fish populations, it is surprising that a relationship between forage fish abundance and predator rate of change does not emerge. The most obvious explanation would be diet flexibility. If the predators can switch between alternative prey, then the fluctuations in any individual forage species may be well buffered by the predator switching to other forage species. We also explored various time lags between prey abundance and predator rate of change, and did not find higher rates of correlation. We did not look at the abundance of forage species in aggregate in our one species at a time comparison.

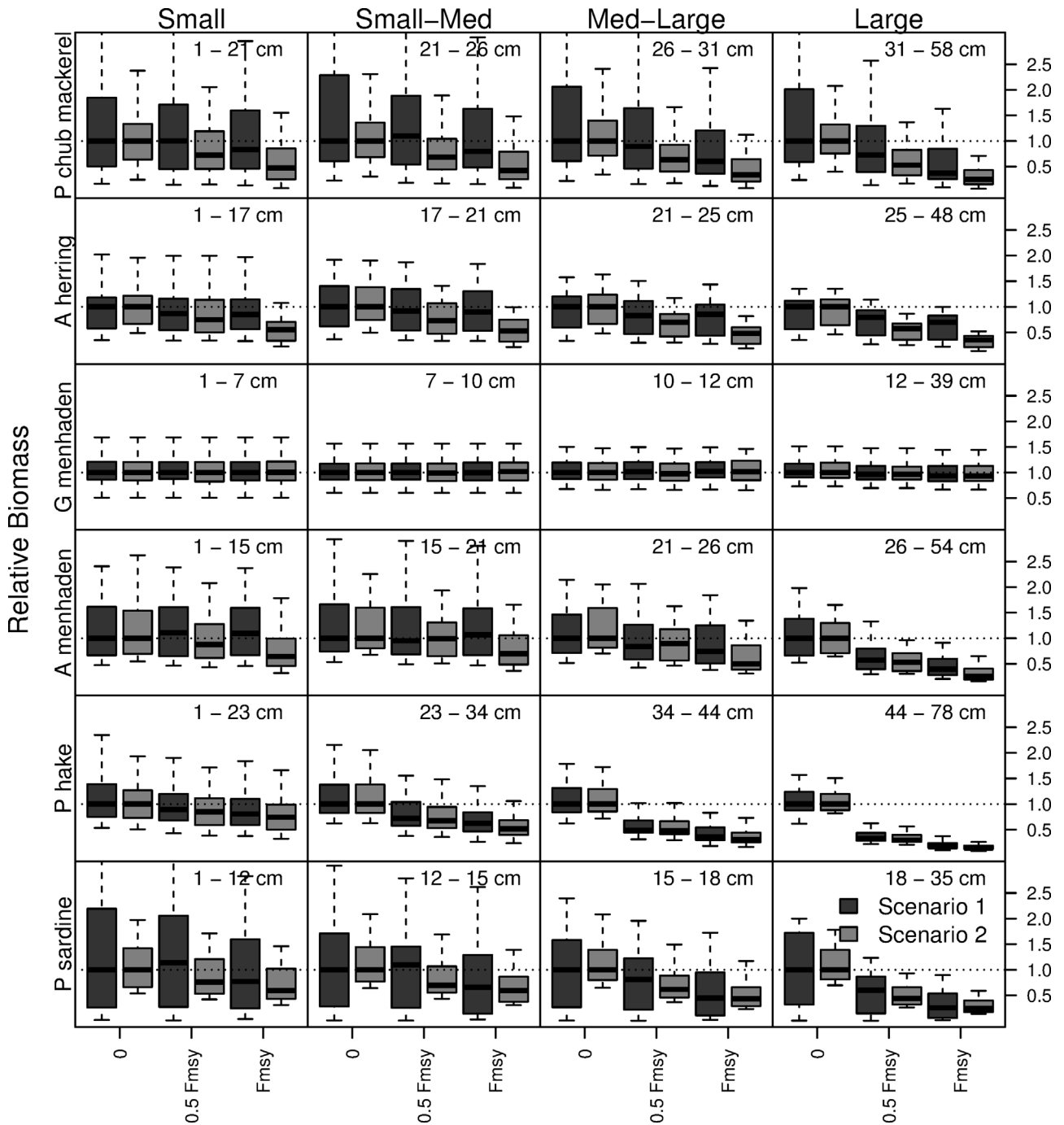


Fig. 2. Change in prey abundance predicted by the simulation model for six forage fish species in different size ranges. Scenario 1: recruitment independent of stock size; Scenario 2: Beverton-Holt stock recruitment relationship.

4.2. Recruitment analysis

If we simply look at the spawner-recruit data for the forage species examined we see little evidence that smaller spawning stocks produce smaller recruitments for both Atlantic and Gulf menhaden, and Pacific hake. Good year classes seem to come from both large and small spawning stock sizes. Pacific chub mackerel, Atlantic mackerel and Pacific sardine do show significantly lower recruitment at lower spawning stock size. However, each of those species shows highly auto-correlated recruitments that are consistent with environmentally driven regime changes and the apparent spawner recruit relationship may in fact simply be that periods of low environmental suitability result in long periods of low

recruitment leading to low spawning stock. The relatively short life span of forage fish and several shifts from high to low productivity over the recruitment time series enhances this effect.

We have used statistical tests with changepoint analysis to try to quantify the support for regime changes vs stock-recruitment relationships and for each of these three species (Pacific chub mackerel, Atlantic herring and Atlantic Menhaden) the AIC analysis supports a regime change. This approach is only exploratory and does not provide a reliable basis for choosing a single operating model. Rather, the policy implications of alternative hypotheses should be evaluated within a management-strategy-evaluation framework and understanding the changes in recruitment is essential before evaluating alternative harvest strategies. However, we would argue

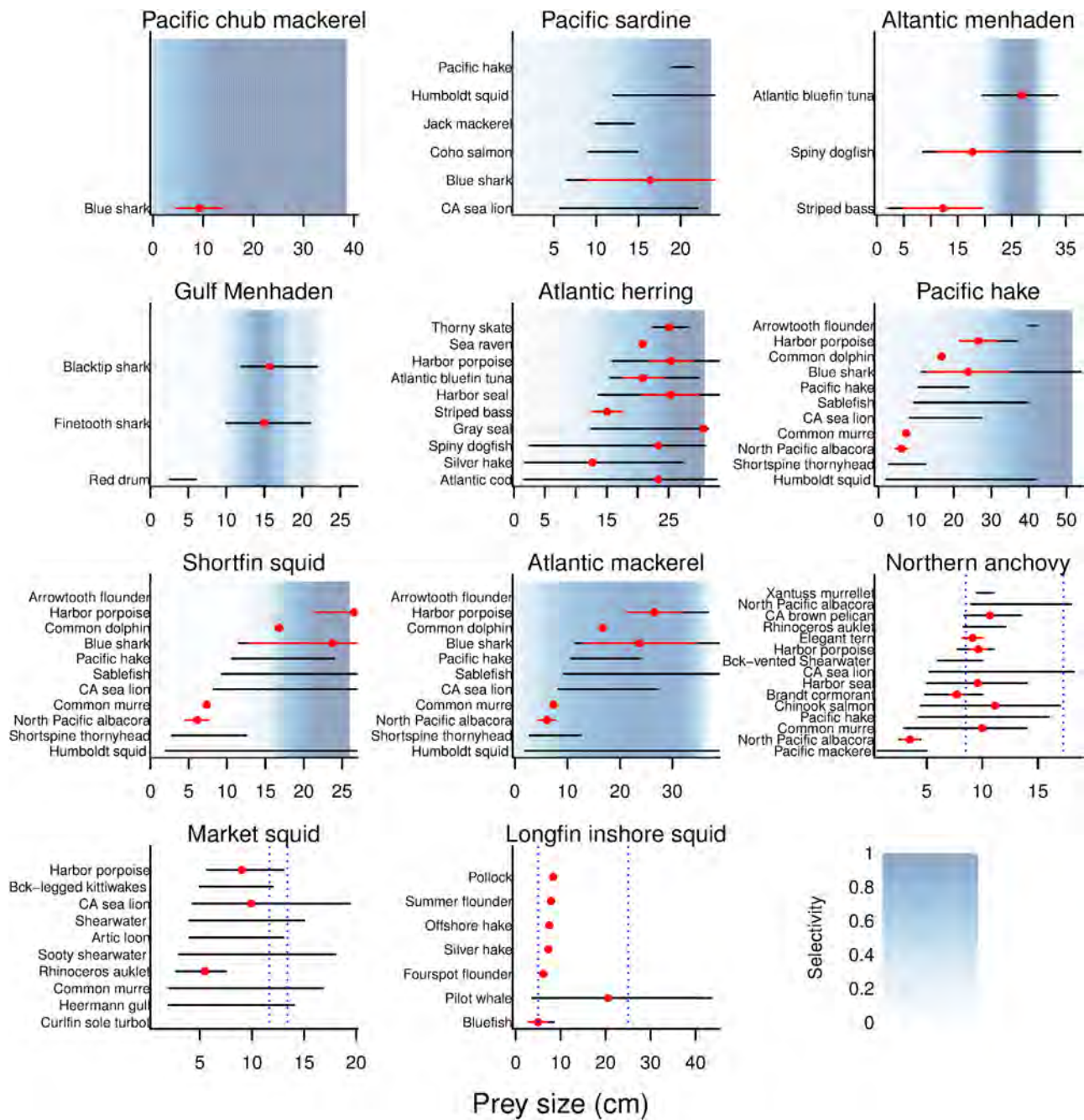


Fig. 3. Prey size consumed by different predators. Black lines indicate the range of sizes eaten. The red dots indicate the mean size of the prey, and the red line the standard deviation. The shading in the background indicates how fishery selectivity changes with fish length. When no estimates of fishery selectivity were found the dotted blue lines indicate the size range of the commercial catch.

that there is strong evidence that recruitments are largely independent of fishing pressure as has been widely accepted for Pacific sardine (Punt et al., 2016) and suggested for many other species globally (Szuwalski and Hilborn, 2015). It is of course not credible that recruitment is independent of stock size for all stock sizes (no eggs, no recruits). We assert only that the range of spawning stock sizes is often not wide enough within regimes to see any effect. It should be noted that within-regime stock-recruitment analysis is subject to strong time series bias, with over-representation of high recruitments at low stock size and low recruitments at high stock size (Walters, 1985) leading to overestimation of the initial stock-recruitment slope and reduced apparent dependence of recruitment on spawning stock size.

4.3. Impacts of fisheries on prey abundance

We found that small size classes are largely unaffected by fishing when the recruitments are simulated at historical levels assuming no impact of spawning stock, and that many, but not all of the predators rely on the smaller sized fish not targeted by fisheries. If we assume a spawner recruit model, then recruitment at F_{MSY} is reduced, so that the abundance of small size classes is also reduced. Given that for most stocks examined, a random recruitment or regime recruitment model was estimated to be best, the evidence for those stocks examined supports little impact of fishing on abundance of smaller size classes of fish. Thus one cannot generalize about the impacts of fishing on food availability to predators

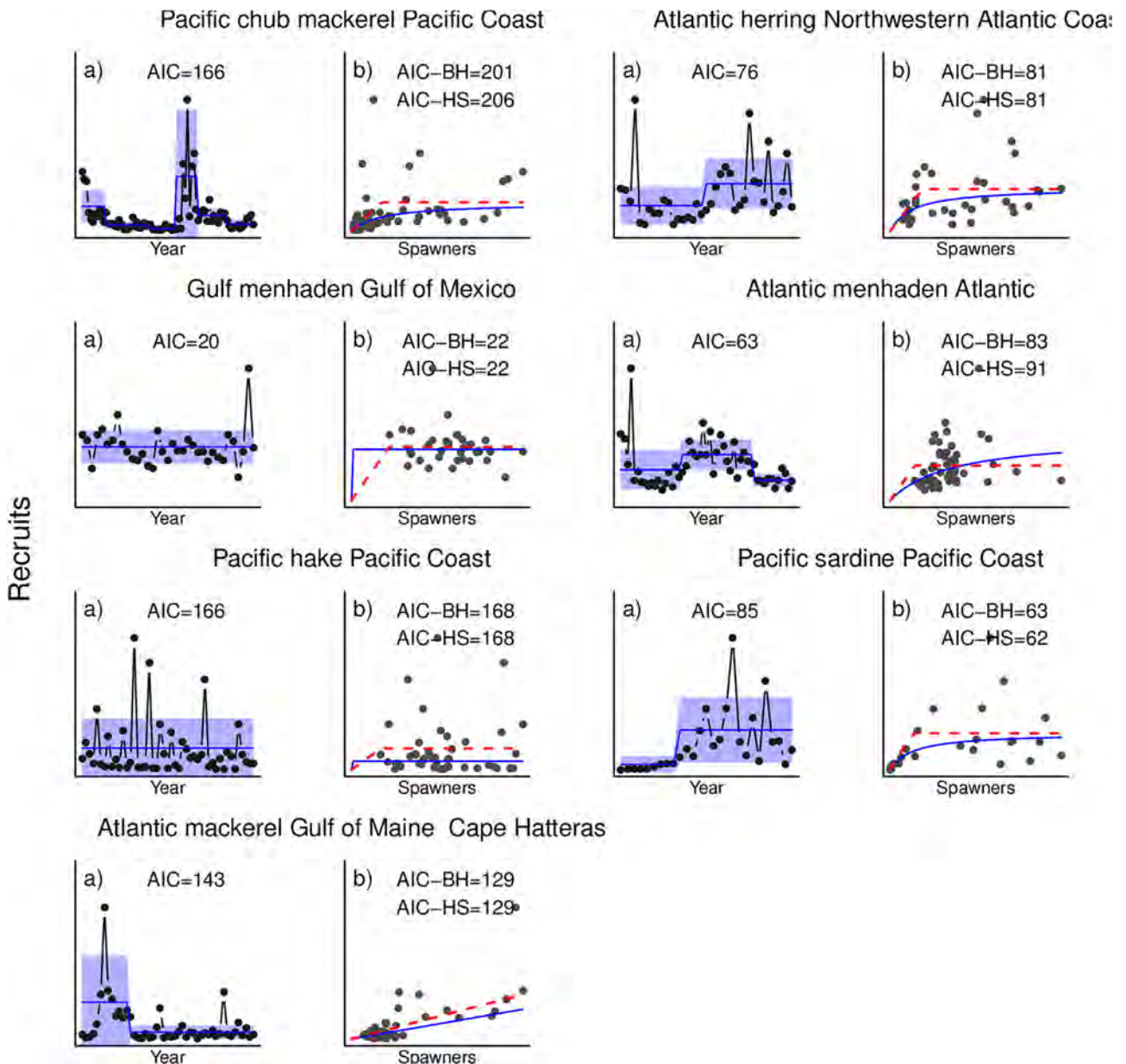


Fig. 4. Alternative models to explain recruitment variability: a regime-shift model, a Beverton-Holt stock-recruitment model and the hockey-stick model. The blue lines indicate the model maximum likelihood estimates. The purple polygons indicate the standard deviation in each regime identified by the changepoint analysis.

and each case must be examined on its own merits with respect to the impact of fishing on recruitment and the size preferences of the predators.

The diet of predators consists not only of the key species we examined here, but many other species, including juveniles of many larger species. Furthermore, the impact of fishing higher trophic level fishes has often caused forage species to be more abundant than they would be in the absence of fishing (Christensen et al., 2014; Kolding et al., 2016; Jennings and Collingridge, 2015).

4.4. Spatial distribution of forage fish

A major factor (though one which has been considered only qualitatively in this paper) is the relationship between the distribution of the forage fish, their abundance, and the location of breeding sites for dependent birds and mammals. Large fluctuations in abundance of the forage fish are accompanied by major changes in their distributional range – at high abundance the fish are found over a

much larger area than at low abundance (MacCall, 1990). If there tend to be “core” areas where even at low overall abundance the forage fish can be found at high density, and these core areas are close to breeding sites of predators, predators would see far more stability in prey availability than indicated by total population size. On the other hand, if fisheries target prey hotspots or feeding areas close to breeding sites, then the impact of fishing may be larger than expected based on overall prey depletion.

This spatial dynamic is an important factor in modulating the response of pelican and sea lion abundance to fishing sardines and anchovy on the US West coast. Pelicans are more vulnerable to declines in sardine and anchovy because of a more restricted diet and more limited foraging area compared to sea lions (Punt et al., 2016). Spatial dynamics are especially important to consider when the distribution of forage fish shifts. Robinson et al. (2015) showed that decreases in the penguin population at Robben Island in South Africa were primarily due to changes in the distribution of sardines, not to the total sardine abundance.

Cury et al. (2011) showed a relationship between the abundance of key prey species and reproductive success of birds. However the index of forage fish abundance in half of the data sets they presented was not the total abundance of forage fish, but rather either local abundance measured around the nesting site, or amount of prey brought to the nest. Thus for those data sets, the relationship between total abundance of prey as influenced by fishing and reproductive success would be weaker than the relationship shown in the paper. Perhaps the best example of this is the data presented for three nesting sites for two bird species in Cook Inlet, Alaska (Piatt, 2002). Prey abundance around the nesting site was estimated by hydroacoustic surveys, and two of the sites generally showed good reproductive success associated with high prey abundance while one of the sites showed poor reproductive success and lower prey abundance. However, these results related to the same fish stock, subject to the same fishery, at all three sites.

The EwE models used in the Pikitch et al. and Smith et al. papers did not take the spatial structure of the forage fish populations into account, but instead assumed that total prey abundance, as influenced by fishing, was exactly what would determine the growth and survival of the predators. To evaluate the influence of fishing on the predators reliably, the changes in spatial distribution need to be considered. This is why both the Punt et al. (2016) and Robinson et al. (2015) papers estimate far less influence of fishing on predator populations than the simpler EwE models of Pikitch et al. and Smith et al. though some of the models used in the Smith et al. paper were ATLANTIS models that included some elements of spatial structure. Walters et al. (2016) also showed that the impact of fishing forage fish would depend greatly on how models were structured and that the conclusions of EwE models are very sensitive to model setup.

5. Conclusions

The purpose of this paper is to identify key factors that need to be included when analyzing the impacts of fishing on forage fish. We find several reasons to concur with the conclusion of Essington and Plaganyi (2013) that the models used in previous analysis were frequently inadequate for estimating impact of fishing forage species on their predators.

The most important feature that needs to be considered is the natural variability in forage fish population size. Their abundance is highly variable even in the absence of fishing, and a creditable analysis of the fishing impacts must consider how the extent of fishing-induced depletion compares with that of natural variability. As an example, Punt et al. (2016) estimated that the probability that brown pelicans would drop below 0.5 K with fishing was 5.3%, and without fishing was 4.5%. For marine fishes in general, "stochastic depletion" i.e. populations falling below 0.5 K, can be expected about 5% of the time even in the absence of fishing (Thorson et al., 2014). Models like EwE without stochasticity would suggest zero probability of such declines in the absence of fishing.

There is a need for a much more thorough analysis of the nature of recruitment trends in forage fish. That there are major environmentally-driven regime changes for many species is unarguable, but what exactly changes is unclear. It is unrealistic to assume that there is no relationship between spawning stock abundance and subsequent recruitment, so what is presumably changing with the environment is either the basic carrying capacity for forage fish, the basic productivity (recruits per spawner) or some combination of the two. The actual dynamics may not involve discrete regimes, but rather gradual changes in the spawner recruitment relationship. The harvest strategy that maximizes long-term fishery yield will depend greatly on exactly how the spawner recruit relationship is changing. If it is the carrying capacity that changes, then a constant fishing mortality rate will produce

long-term yields that are very close to the theoretical optimum (Walters and Parma, 1996). If, however, it is the underlying productivity that changes, the fishing mortality rate may need to be respectively increased or decreased as productivity changes upwards or downwards.

The size distribution of both predator and prey and the size selectivity in diet need to be included in any analysis. In cases where recruitment is largely independent of spawning stock, and the predators take prey before they are fished, there is no influence of the fishery on availability of prey to predators. We identified numerous examples where this is the case (Fig. 3), but it is not universal. Some predators compete directly with the fishery for the same sizes of prey and such competition must be considered if we are to manage fisheries appropriately for both predators and prey.

We have found several examples of the importance of changes in spatial distribution of prey affecting the predators that suggest any analysis that does not consider such changes will not properly evaluate the impact of fishing forage fish on their predators. These include the South African penguin and sardine interaction and the Cook Inlet example (Piatt, 2002).

Our analysis of the relationship between predator rate of change and abundance of individual prey species suggests little evidence for strong connections. This is likely due to the many factors discussed above that mediate the link between fishing, prey abundance, spatial distribution and size, and predator population dynamics. The fact that few of the predator populations evaluated in this study have been decreasing under existing fishing policies suggests that current harvest strategies do not threaten the predators and there is no pressing need for more conservative management of forage fish. Hannesson (2013) showed that declines of Pacific sardine, Norwegian spring spawning herring, and Peruvian anchoveta had small impacts on their fish predators, although he relied on catches of the predators rather than direct measures of abundance. This is further evidence that general rules proposed by Pikitch et al. (2012) are not appropriate for all species and a case by case analysis is needed.

Pikitch et al. (2012) argued forcefully that their analysis provided general conclusions that should be broadly applied. However, relevant factors are missing from the analysis contained in their work, and this warrants re-examination of the validity and generality of their conclusions. We have illustrated how consideration of several factors which they did not consider would weaken the links between impacts of fishing forage fish on the predator populations.

Smith et al. (2011) were much more reserved in their conclusions, ending primarily with the estimate that fishing mortality rates on forage fish could be well below F_{MSY} with only a 20% decrease in catch of forage fish while having appreciable benefits to their predators. All single species population models show little decrease in yield with fishing mortality rates less than F_{MSY} and this would be true for forage fish as well. The very simple logistic growth model suggests that a fishing mortality rate of $0.5 F_{MSY}$ would produce 75% of MSY. However, the evidence presented here suggest that reductions in fishing mortality rate would benefit predators less than argued by Pikitch et al. (2012). Most of the issues we raised in this paper apply to most of the models used by Smith et al. (2011).

It must be remembered that small pelagic fish stocks are a highly important part of the human food supply, providing not only calories and protein, but micronutrients, both through direct human consumption and the use of small pelagics as food in aquaculture. Some of the largest potential increases in capture fisheries production would be possible by fishing low trophic levels much harder than currently (Garcia et al., 2012; Kolding et al., 2016). While fishing low trophic levels harder may reduce the abundance of higher level predators, that cost should be weighed against the environmental cost of increasing food production in other ways. As Sharpless and Evans (2013) point out, fish provide food without

substantial use of freshwater, fertilizer, antibiotics and soil erosion. Forage fish also have among the lowest carbon footprints of any form of protein production (Pelletier et al., 2011). Thus it is not clear that from a global environmental perspective that reductions in fishing mortality rates on forage fish would necessarily be precautionary.

We have used examples of predators and forage fish only from U.S. fisheries, which are widely recognized to be among the best managed in the world, and also have extensive legal protections for many higher trophic level birds and mammals. While the deficiencies we have identified in the existing models are general, the status and trends of predators and prey may be quite different in other parts of the world.

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Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at <http://dx.doi.org/10.1016/j.fishres.2017.01.008>.

References

- Caretta, J.V., Forney, K.A., Muto, M.M., Barlow, J., Baker, J., Hanson, B., Lowry, M.S., 2006. U.S. Pacific Marine Mammal Stock Assessments: 2005. NOAA Technical Memos: NOAA.
- Christensen, V., Coll, M., Piroddi, C., Steenbeek, J., Buszowski, J., Pauly, D., 2014. A century of fish biomass decline in the ocean. *Mar. Ecol. Prog. Ser.* 512, 155–166.
- Curry, P.M., Boyd, L.L., Bonhommeau, S., Anker-Nilssen, T., Crawford, R.J., Furness, R.W., Mills, J.A., Murphy, E.J., Österblom, H., Paleczny, M., 2011. Global seabird response to forage fish depletion—one-third for the birds. *Science* 334, 1703–1706. <http://dx.doi.org/10.1126/science.1212928>.
- Essington, T.E., Plaganyi, E.E., 2013. Pitfalls and guidelines for recycling models for ecosystem-based fisheries management: evaluating model suitability for forage fish fisheries. *ICES J. Mar. Sci.*, <http://dx.doi.org/10.1093/icesjms/ft047>.
- Fournier, D.A., Skaug, H.J., Ancheta, J., Ianelli, J., Magnusson, A., Maunder, M.N., Nielsen, A., Sibert, J., 2012. AD Model Builder: using automatic differentiation for statistical inference of highly parameterized complex nonlinear models. *Optim. Methods. Softw.* 27, 233–249. <http://dx.doi.org/10.1080/10556788.2011.597854>.
- Garcia, S.M., Kolding, J., Rice, J., Rochet, M.J., Zhou, S., Arimoto, T., Beyer, J.E., Borges, L., Bundy, A., Dunn, D., Fulton, E.A., Hall, M., Heino, M., Law, R., Makino, M., Rijnsdorp, A.D., Simard, F., Smith, A.D.M., 2012. Reconsidering the consequences of selective fisheries. *Science* 335, 1045–1047. <http://dx.doi.org/10.1126/science.1214594>.
- Gilbert, D.J., 1997. Towards a new recruitment paradigm for fish stocks. *Can. J. Fish. Aquat. Sci.* 54, 969–977.
- Hamre, J., 1994. Biodiversity and exploitation of the main fish stocks in the Norwegian-Barents Sea ecosystem. *Biodivers. Conserv.* 3, 473–492. <http://dx.doi.org/10.1007/BF00115154>.
- Hannesson, R., 2013. Strictly for the birds?: On ecosystem services of forage fish. *Mar. Policy* 38, 109–115. <http://dx.doi.org/10.1016/j.marpol.2012.05.026>.
- Hjermann, D.Ø., Ottersen, G., Stenseth, N.C., 2004. Competition among fishermen and fish causes the collapse of Barents Sea capelin. *Proc. Natl. Acad. Sci. U. S. A.* 101, 11679–11684. <http://dx.doi.org/10.1073/pnas.0402904101>.
- Jennings, S., Collingridge, K., 2015. Predicting consumer biomass, size-structure, production, catch potential, responses to fishing and associated uncertainties in the world's marine ecosystems. *PLoS One* 10, e0133794.
- Jensen, O.P., Branch, T.A., Hilborn, R., 2012. Marine fisheries as ecological experiments. *Theor. Ecol.* 5, 3–22.
- Killick, R., Eckley, I., 2014. ChangePoint: an R package for change point analysis. *J. Stat. Softw.* 58, 1–19. <http://dx.doi.org/10.18637/jss.v058.i03>.
- Killick, R., Fearnhead, P., Eckley, I., 2012. Optimal detection of change points with a linear computational cost. *J. Am. Stat. Assoc.* 107, 1590–1598. <http://dx.doi.org/10.1080/01621459.2012.737745>.
- Kolding, J., Bundy, A., van Zwieten, P.A., Plank, M.J., 2016. Fisheries, the inverted food pyramid. *ICES J. Mar. Sci.* 73, 697–1713. <http://dx.doi.org/10.1093/icesjms/fsv225>.
- MacCall, A.D., 1990. *Dynamic Geography of Marine Fish Populations Seattle*. University of Washington Press, Washington.
- Myers, R.A., Barrowman, N.J., 1996. Is fish recruitment related to spawner abundance? *Fish. Bull.* 94, 707–724.
- Myers, R.A., Rosenberg, A.A., Mace, P.M., Barrowman, N., Restrepo, V.R., 1994. In search of thresholds for recruitment overfishing. *ICES J. Mar. Sci.* 51, 191–205. <http://dx.doi.org/10.1006/jmsc.1994.1020>.
- Myers, R.A., Bowen, K.G., Barrowman, N.J., 1999. Maximum reproductive rate of fish at low population sizes. *Can. J. Fish. Aquat. Sci.* 56, 2404–2419. <http://dx.doi.org/10.1139/f99-201>.
- Nelson, G.A., Chase, B.C., Stockwell, J.D., 2006. Population consumption of fish and invertebrate prey by striped bass (*Morone saxatilis*) from coastal waters of northern Massachusetts, USA. *J. Northw. Atl. Fish. Sci.* 36, 111–126. <http://dx.doi.org/10.2960/j.v36.m576>.
- Pelletier, N., Audsley, E., Brodt, S., Garnett, T., Henriksson, P., Kendall, A., Kramer, K.J., Murphy, D., Nemecek, T., Troell, M., 2011. *Energy Intensity of Agriculture and Food Systems*.
- Piatt, J.F., Response of seabirds to fluctuations in forage fish density: Exxon Valdez Oil Spill Trustee Council; 2002.
- Pikitch, E., Boersma, P.D., Boyd, I., Conover, D., Cury, P., Essington, T., Heppell, S., Houde, E., Mangel, M., Pauly, D., 2012. *Little Fish, Big Impact: Managing a Crucial Link in Ocean Food Webs*. Lenfest Ocean Program, Washington, DC, pp. 108.
- Punt, A., MacCall, A.D., Essington, T.E., Francis, T.B., Hurtado-Ferro, F., Johnson, K.F., Kaplan, I.C., Koehn, L.E., Levin, P.S., Sydeman, W.J., 2016. Exploring the implications of the harvest control rule for Pacific sardine, accounting for predator dynamics: a MICE model. *Ecol. Modell.* 337, 79–95. <http://dx.doi.org/10.1016/j.ecolmodel.2016.06.004>.
- R Core Team, 2014. *R: A Language and Environment for Statistical Computing*. R Foundation for Statistical Computing, Vienna, Austria.
- Ricard, D., Minto, C., Jensen, O.P., Baum, J.K., 2012. Examining the knowledge base and status of commercially exploited marine species with the RAM Legacy Stock Assessment Database. *Fish. Fish.* 13, 380–398. <http://dx.doi.org/10.1111/j.1467-2979.2011.00435.x>.
- Robinson, W.M., Butterworth, D.S., Plagányi É, E., 2015. Quantifying the projected impact of the South African sardine fishery on the Robben Island penguin colony. *ICES J. Mar. Sci.* 72, 1822–1833. <http://dx.doi.org/10.1093/icesjms/fsv035>.
- Rodionov, S., Overland, J.E., 2005. Application of a sequential regime shift detection method to the Bering Sea ecosystem. *ICES J. Mar. Sci.* 62, 328–332.
- Schwartzlose, R.A., Alheit, J., Bakun, A., Baumgartner, T.R., Cloete, R., Crawford, R.J.M., Fletcher, W.J., Green-Ruiz, Y., Hagen, E., Kawasaki, T., Lluch-Belda, D., Lluch-Cota, S.E., MacCall, A.D., Matsuura, Y., Nevarez-Martinez, M.O., Parrish, R.H., Roy, C., Serra, R., Shust, K.V., Ward, M.N., Zuzunaga, J.Z., 1999. Worldwide large-scale fluctuations of sardine and anchovy populations. *S. Afr. J. Mar. Sci.* 21, 289–347. <http://dx.doi.org/10.2989/025776199784125962>.
- Sharpless, A., Evans, S., 2013. *The Perfect Protein: The Fish Lover's Guide to Saving the Oceans and Feeding the World*. Rodale Press.
- Smith, A.D., Brown, C.J., Bulman, C.M., Fulton, E.A., Johnson, P., Kaplan, I.C., Lozano-Montes, H., Mackinson, S., Marzloff, M., Shannon, L.J., 2011. Impacts of fishing low-trophic level species on marine ecosystems. *Science* 333, 1147–1150. <http://dx.doi.org/10.1126/science.1209395>.
- Szuwalski, C.S., Hilborn, R., 2015. Environment drives forage fish productivity. *Proc. Natl. Acad. Sci.* 112, E3314–E3315.
- Szuwalski, C.S., Vert-pre, K.A., Punt, A.E., Branch, T.A., Hilborn, R., 2014. Examining common assumptions about recruitment: a meta-analysis of recruitment dynamics for worldwide marine fisheries. *Fish. Fish.* 16, 633–648. <http://dx.doi.org/10.1111/faf.120831>.
- Thaxter, C.B., Lascelles, B., Sugar, K., Cook, A.S., Roos, S., Bolton, M., Langston, R.H., Burton, N.H., 2012. Seabird foraging ranges as a preliminary tool for identifying candidate Marine Protected Areas. *Biol. Conserv.* 156, 53–61. <http://dx.doi.org/10.1016/j.biocon.2011.12.009>.
- Thorson, J.T., Jensen, O.P., Hilborn, R., 2014. Probability of stochastic depletion: an easily interpreted diagnostic for stock assessment modelling and fisheries management. *ICES J. Mar. Sci.* 72, 428–435. <http://dx.doi.org/10.1093/icesjms/fsv127>.
- Tummers, B., 2006. DataThief III (v. 1.1). URL <http://www.datathief.org/>.
- Vert-pre, K.A., Amoroso, R.O., Jensen, O.P., Hilborn, R., 2013. Frequency and intensity of productivity regime shifts in marine fish stocks. *Proc. Natl. Acad. Sci. U. S. A.* 110, 1779–1784. <http://dx.doi.org/10.1073/pnas.1214879110>.
- Walters, C., Parma, A.M., 1996. Fixed exploitation rate strategies for coping with effects of climate change. *Can. J. Fish. Aquat. Sci.* 53, 148–158.
- Walters, C., Christensen, V., Fulton, B., Smith, A.D.M., Hilborn, R., 2016. Predictions from simple predator-prey theory about impacts of harvesting forage fishes. *Ecol. Modell.* 337, 272–280.
- Walters, C.J., 1985. Bias in the estimation of functional relationships from time series data. *Can. J. Fish. Aquat. Sci.* 42, 147–149.
- Waring, G., Josephson, E., Maze-Foley, K., Rosel, E., 2015. Trends in selected US Atlantic and Gulf of Mexico Marine Mammal Stock Assessments – 2014. NOAA Technical Memorandum NMFS-NE-231.

**2017 REVIEW OF THE FISHERY MANAGEMENT PLAN
AND STATE COMPLIANCE
FOR THE 2016
ATLANTIC MENHADEN (*Brevoortia tyrannus*) FISHERY**



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2017 REVIEW OF THE FISHERY MANAGEMENT PLAN AND STATE COMPLIANCE FOR ATLANTIC MENHADEN (*Brevoortia tyrannus*)

Management Summary

| | |
|---------------------------------------|---|
| <u>Date of FMP:</u> | Original FMP: August 1981 |
| <u>Amendments:</u> | Plan Revision: September 1992 Amendment 1: July 2001 Amendment 2: December 2012 Amendment 3: Draft in progress |
| <u>Management Unit:</u> | Maine through Florida |
| <u>States With Declared Interest:</u> | Maine – Florida |
| <u>Additional Jurisdictions:</u> | Potomac River Fisheries Commission, National Marine Fisheries Service, United States Fish and Wildlife Service |
| <u>Active Boards/Committees:</u> | Atlantic Menhaden Management Board, Advisory Panel, Technical Committee, Stock Assessment Subcommittee, Plan Review Team, Plan Development Team, Biological Ecological Reference Point Work Group |
| <u>Stock Status:</u> | Not overfished, and overfishing is not occurring (benchmark assessment; SEDAR 2015) |

I. Status of the Fishery Management Plan

Atlantic menhaden management authority is vested in the states because the vast majority of landings come from state waters. All Atlantic coast states and jurisdictions, with the exception of the District of Columbia, have declared an interest in the Atlantic menhaden management program.

The first coastwide fishery management plan (FMP) for Atlantic menhaden was passed in 1981 (ASMFC 1981). The 1981 FMP did not recommend or require specific management actions, but provided a suite of options should they be needed. In 1992, the plan was revised to include a suite of objectives intended to improve data collection and promote awareness of the fishery and its research needs (ASMFC 1992).

Amendment 1, passed in 2001, provided specific biological, social/economic, ecological, and management objectives for Atlantic menhaden. No recreational or commercial management measures were implemented as a result of Amendment 1; however, subsequent addenda instituted a harvest cap on the reduction fishery in the Chesapeake Bay, based on average landings from 2001-2005. Two addenda (Addendum I and V) revised the biological reference points for menhaden and specified that stock assessments are to occur every three years.

Amendment 2, approved in December 2012, established a 170,800 metric ton (mt) total allowable catch (TAC) for the commercial fishery beginning in 2013. This TAC represented a 20% reduction from average landings between 2009 and 2011. The 2009-2011 time period was also used to allocate the TAC among the jurisdictions. In addition, the Amendment established requirements for timely reporting and required states to be accountable for their respective quotas by paying back any overages the following year. The amendment included provisions that allowed for the transfer of quota between jurisdictions and a bycatch allowance of 6,000 pounds per trip for non-directed fisheries that operate after a jurisdiction's quota has been landed. Further, it reduced the Chesapeake Bay reduction fishery harvest cap by 20% to 87,216 metric tons.

At its May 2015 meeting, the Board established a 187,880 mt TAC for the 2015 and 2016 fishing years. This represented a 10% increase from the 2013 and 2014 TAC. In October 2016, the Board approved a TAC of 200,000 mt for the 2017 fishing year, representing a 6.45% increase from the 2015 and 2016 fishing years.

In August 2016, the Board approved Addendum I which added flexibility to the current bycatch provision by allowing two licensed individuals to harvest up to 12,000 pounds of menhaden bycatch when working together from the same vessel using stationary multi-species gear. The intent of this Addendum was to accommodate cooperative fishing practices that traditionally take place in the Chesapeake Bay.

In May 2013, the Board approved Technical Addendum I which established an episodic events set aside program. This program set aside 1% of the coastwide TAC for the New England states (ME, NH, MA, RI, CT) to harvest Atlantic menhaden when they occur in higher abundance than normal. In order to participate in the program, a state must reach its individual quota prior to September 1, implement daily trip level harvester reporting, restrict harvest to state waters, and implement a daily trip limit no greater than 120,000 pounds/vessel. At its October 2013 meeting, the Board extended the episodic event set aside program through 2015, adding a provision that re-allocated unused set aside as of October 31 to the coastwide states based on the same allocation percentages included in Amendment 2. At its May 2016 meeting, the Board again extended the episodic events program until final action on Amendment 3 and added New York as an eligible state to harvest under the program.

At its February 2014 meeting, the Board passed a motion to manage cast net fisheries for Atlantic menhaden under the bycatch allowance for 2014 and 2015, with the states bearing responsibility for reporting. At its November 2015 meeting, the Board approved a motion to continue the management of cast net fisheries under the bycatch allowance for 2016. In February 2017, the Board extended management of the cast net fishery under the bycatch provision until implementation of Amendment 3.

II. Status of the Stock

Threshold reference points are the basis for determining stock status. When the fishing mortality rate (F) exceeds the F -threshold, overfishing is occurring. When the reproductive output measure, in this case population fecundity (FEC), falls below its threshold, then the stock is overfished, meaning there is insufficient egg production to replenish the stock.

Amendment 2 (2013) implemented maximum spawning potential (MSP) based reference points that relate current stock conditions as a percent of unfished conditions. Considering the modeling and data input changes that occurred in the 2015 Benchmark Stock Assessment, the TC and Peer Review Panel recommended new MSP based reference points that are applicable to the results of the assessment (SEDAR 2015). These new reference points were accepted by the Board in 2015.

As recommended by the Peer Review Panel, and accepted by the TC, the value of fishing mortality reference points is to be the geometric mean of fishing mortality on ages-2 to -4. These ages represent the fully selected fishing mortality rates depending upon the year and fishery (i.e., bait and reduction). The fecundity (FEC) reference points match the F reference points meaning they are equal to the fecundity estimated when F reaches equilibrium at its target and threshold MSP levels, respectively.

As a result, the fishing mortality reference points are F -target ($F_{57\%MSP}$) = 0.38 and F -threshold ($F_{26\%MSP}$) = 1.26. Associated reference points for population fecundity are FEC -target ($FEC_{57\%MSP}$) = 189,270 (billions of eggs), and FEC -threshold ($FEC_{26\%MSP}$) = 86,821 (billions of eggs). Based on the 2015 stock assessment, overfishing is not occurring because fishing mortality for the terminal year (2013) is estimated to be $F = 0.22$ ($F_{70\%MSP}$), below both the target and the threshold. Additionally, the stock is not overfished because fecundity for 2013 is estimated to be $FEC = 170,536$ billion eggs, above the threshold and just below the target.

The next stock assessment will be an update assessment in 2017.

III. Progress of the Biological Ecological Reference Point Work Group

The Biological Ecological Reference Point Work Group (BERP Work Group) has been tasked with developing menhaden-specific ecosystem reference points that account for the abundance of menhaden and the species role as a forage fish. An Ecosystem Management Objectives Workshop (EMOW) was held in 2015 to identify management goals and performance measures

for the menhaden-specific ERPs. With these objectives in mind, the BERP Work Group is currently evaluating a suite of multispecies models to determine which models should be pursued and forwarded to peer review. These candidate models include a Bayesian surplus production model with a time-varying population growth rate, a Steele-Henderson model which permits non-fisheries effects (predation and environment) to be quantified and incorporated into the single species stock assessments, and a multispecies statistical catch-at-age model in which single species models are linked to provide a predator-prey feedback between the population models. An Ecopath with Ecosim model is also being evaluated; however, the application of this model is for strategic planning (to explore tradeoffs), not quota setting advice.

In 2016, the BERP Work Group met in-person in July for a modeling workshop which focused on the Steel-Henderson model. In December, the group met via conference call to review changes made to the Steel-Henderson model and receive updates on the other modeling approaches. It is expected that a peer-review of the menhaden-specific ERP models, as well as a review of the current single-species model, will be conducted in the Fall of 2019.

IV. Development of Amendment 3

At their May 2015 meeting, the Board initiated the development of Amendment 3 to the Atlantic Menhaden FMP to pursue the development of ecological reference points (ERPs) and revisit allocation methods.

As a part of the 2015 Benchmark Stock Assessment, the peer review report listed the development of ERPs as a high priority for Atlantic menhaden management. Menhaden serve an important role in the marine ecosystem as they convert phytoplankton into protein and, in turn, provide a food source to a variety of species including larger fish (e.g., weakfish, striped bass, bluefish, cod), birds (e.g., bald eagles, osprey), and marine mammals (e.g., humpback whales, bottlenose dolphin). As a result, changes in the abundance of menhaden may have implications for the marine ecosystem. ERPs provide a method to assess the status of menhaden not only in regard to their own sustainability, but also in regard to their interactions with predators and the status of other prey species. The benefit of this approach is that it allows fishery managers to consider the harvest of menhaden within a broad ecosystem context, which includes other fish, birds, mammals, and humans who utilize and depend on marine resources.

In addition to ERPs, the Board also initiated Amendment 3 to revisit the allocation methods prescribed in Amendment 2 given concerns that the approach may not strike a balance between gear types and regions. Specifically, some states have expressed concern that under the current allocation method, increases in the TAC result in limited benefits to small-scale fisheries. In addition, concerns have been expressed that the current allocation method does not provide a balance between the present needs of the fishery and future growth opportunities. Given improvements in the condition of the Atlantic menhaden stock, the three-

year period of historical catch on which allocation is based may limit states who currently have minimal quota from participating in the growing fishery. Some states have also found evidence of unreported landings during the reference period, meaning the quota system may have reduced their fisheries to a greater extent than originally intended.

A Public Information Document (PID) for Amendment 3 was approved by the Board in October 2016 and public comment was collected between November and December 2016. In February 2017, the Board reviewed the comments provided on the PID and tasked the Plan Development Team with drafting Amendment 3. It is expected that Draft Amendment 3 will be approved by the Board in August 2017 and the Board will take final action on the document in November 2017.

V. Status of the Fishery

Recreational

Menhaden are important bait in many recreational fisheries; some recreational fishermen employ cast nets to capture menhaden or snag them with hook and line for use as bait, both dead and live. Recreational harvest is not well captured by the Marine Recreational Information Program (MRIP) because there is not a known identified direct harvest for menhaden, other than for bait. MRIP intercepts typically capture the landed fish from recreational trips as fishermen come to the dock or on the beach. Since menhaden caught by recreational fishermen are used as bait during their trip, they will not be a part of the catch that is typically seen by the surveyor completing the intercept.

The preliminary MRIP estimate of Atlantic menhaden harvest in 2016 is 1,863,159 pounds. This is significantly higher than the 931,921 pounds that were recreationally harvested in 2015.

Commercial

Total commercial Atlantic menhaden landings in 2016 (preliminary), including reduction, bait, bycatch, and episodic event set aside (EESA) landings, was 398.33 million pounds. The bycatch landings¹ of 2.18 million pounds do not count toward the coastwide commercial TAC of 414.2 mil pounds. The non-bycatch landings total was 396.15 million pounds, representing a 4.4% underage of the coastwide TAC in 2016, and a 3.6% decrease from the 410.8 mil pounds landed in 2015.

Reduction Fishery

The 2016 harvest for reduction purposes was 302.9 million pounds. This represents a 4.2% decrease from 2015 reduction landings, and a 6% decrease from the previous 5-year (2011-2015) average of 321.9 mil pounds (Figure 1). Omega Protein's plant in Reedville, Virginia, is the only active Atlantic menhaden reduction factory on the Atlantic coast.

¹ Landed under the 6,000 pound bycatch allowance

Bait Fishery

The preliminary estimate of the coastwide directed bait harvest for 2016 is 95.4 million pounds; this is a 5.6% decrease from the 2015 bait harvest, and a 10.1% decrease from the average harvest of the previous five years (2011-2015), 106.1 mil pounds (Figure 1). New Jersey (48%), Virginia (33%), Maryland (5.5%), Maine (4.7%), and Massachusetts (3.2%) landed the five largest shares.

Bycatch Landings

Bycatch landings in 2016 totaled 2.2 million pounds, which represents a 63% decrease from 2015 bycatch landings. The 2016 bycatch landings accounted for approximately 0.55% of the coastwide landings, but do not count towards the coastwide TAC. In 2016, the states of Maryland, Virginia, New York, and Maine comprised 78% of the bycatch landings with Rhode Island, New Jersey, Delaware, PRFC, and Florida accounting for the remaining 22% (Table 1). The predominant gears used from 2013-2016 include pound nets (61%) and anchored/staked gill nets (23%), which together accounted for 84% of the average landings from 2013 through 2016 (Table 1).

A total of 1908 trips landed bycatch of Atlantic menhaden in 2016. A majority of the bycatch trips (69%) landed less than 1,000 pounds from 2013 through 2016 (Table 2).

Episodic Events Set Aside Program

One percent of the TAC is set aside for episodic events. Episodic events are defined as any instance when a qualified state has reached its individual state quota, prior to September 1, and has information indicating the presence of unusually large amounts of menhaden in its state waters. In 2016, New York, Rhode Island, and Maine declared participation in the set aside. While not a New England state, New York was approved by the Board in May 2016 to harvest under the set aside program. In total, 3.81 million pounds were harvested under the set aside. The remaining roughly 331,895 pounds were re-allocated to all the coastal states on November 1, 2016 using the allocation percentages from Amendment 2.

VI. Status of Research and Monitoring

Commercial fisheries monitoring

Reduction fishery - The NMFS Southeast Fisheries Science Center Beaufort Laboratory in Beaufort, North Carolina, continues to monitor and process landings and bio sample data collected from the Atlantic menhaden purse-seine reduction fishery. The Beaufort Laboratory processes and ages all reduction samples collected on the East Coast. In addition, the purse-seine reduction fishery continues to provide Captains Daily Fishing Reports (CDFRs) to the Beaufort Laboratory where NMFS personnel enter data into a database for storage and analysis.

Bait fishery - Per Amendment 2, states are required to implement a timely quota monitoring system in order to maintain menhaden harvest within the TAC and minimize the potential for overages. The SAFIS daily electronic dealer reporting system allows near real time data acquisition for federally permitted bait dealers in the Mid-Atlantic and Northeast. Landings by Virginia's purse-seine for-bait vessels (snapper rigs) in Chesapeake Bay are tabulated (at season's end) using CDFRs maintained on each vessel during the fishing season. A bait-fishery sampling program for size and age composition has been conducted since 1994. The Beaufort Laboratory, and some states, age the bait samples collected. See *Section VII: Implementation for FMP Compliance Requirements for 2016* for further information on age and length sampling requirements.

Atlantic menhaden research

The following studies relevant to menhaden assessment and management have been published within the last year:

- *Simpson, C. A., Wilberg, M. J., Bi, H., Schueller, A. M., Nesslage, G. M., and H. J. Walsh. 2016. Trends in Relative Abundance and Early Life Survival of Atlantic Menhaden during 1977-2013 from Long-Term Ichthyoplankton Programs. Transactions of the American Fisheries Society, 145(5): 1139-1151.*
 - Larval data from two large-scale sampling programs which span Nova Scotia, Canada to Cape Hatteras, North Carolina were used to develop an index of menhaden larval abundance. Overall, menhaden larval abundance increased from 1977 to 2013 and the trend closely corresponds to adult spawning stock biomass. In contrast, menhaden juvenile indices have declined during this time period. This study suggests that the decline in the juvenile abundance is not the result of reduced larval supply but is rather a result of limited survival between the larval and juvenile life stages.
- *Hilborn, R., Amoroso, R. O., Bogazzi, E., Jensen, O. P., Parma, A. M., Szuwalski, C., and C. J. Walters. In press. Fisheries Research.*
 - Literature on 11 forage species were reviewed to explore the impact of harvesting low trophic level species on predators such as fish, birds, and marine mammals. The paper contends that the impact of harvesting forage fish on predator species is less than previously estimated as current models do not account for the population variability of forage fish, the critical role of the environment in recruitment, the size distribution of forage fish, and the spatial distribution of these lower trophic species.
- *Houde, E. D., Annis, E. R., Harding, L. W., Malonee, M. E., and M. J. Wilberg. 2016. Factors affecting the abundance of age-0 Atlantic menhaden (*Brevoortia tyrannus*) in Chesapeake Bay. ICES Journal of Marine Science, 73(9): 2238-2251.*
 - The abundance of age-0 menhaden from seine and trawl surveys was analyzed to determine the impact of primary productivity and environmental variables on young of year menhaden. Results showed a positive relationship between recruit abundance and primary productivity between 1989 and 2004 but a negative

relationship between the lengths of age-0 menhaden and abundance. This suggests that food and density-dependent factors may influence menhaden recruitment.

- *Buchheister, A., Miller, T. J., Houde, E. D., Secor, D. H., and R. J. Latour. 2016. Spatial and temporal dynamics of Atlantic menhaden (*Brevoortia tyrannus*) recruitment in the Northwest Atlantic Ocean. ICES Journal of Marine Science, 73(4): 1147-1159.*
 - Young of year indices from 1959 to 2013 were used to investigate spatial and temporal variability in menhaden recruitment. The study found two geographic groups, one in the Chesapeake Bay and one in Southern New England. The Atlantic Multidecadal Oscillation was the best predictor of menhaden recruitment trends in both regions.
- *Anstead, K. W., Schaffler, J. J., and C. M. Jones. 2016. Coast-Wide Nursery Contribution of New recruits to the Population of Atlantic Menhaden. Transactions of the American Fisheries Society, 145(3): 627-636.*
 - Otolith chemistry was used to evaluate the relative importance of menhaden nursery grounds to the overall population. The Chesapeake Bay, while still contributing the highest proportion of age-1 recruits, showed a decline in recruitment over the last 20 years. In contrast, contributions from nursery grounds in New England have increased over time.

VII. Implementation of FMP Compliance Requirements for 2016

All states are required to submit annual compliance reports by April 1.

Quota Results

The final state quotas for 2016 include an adjustment from the reallocation of unused episodic event set aside that occurred on November 1, as well as eight inter-state quota transfers (Table 3). Massachusetts transferred 35,986 pounds to Rhode Island. A second transfer of 100,000 pounds was made from Massachusetts to Rhode Island to allow for the harvest of menhaden in the fall, but since this transfer was not used, the full 100,000 pounds was transferred back to Massachusetts. North Carolina transferred 85,000 pounds to Florida, 492,823 pounds to New York (occurred over two transfers), and 300,000 pounds to Maine. Virginia transferred 1.5 million pounds to Maine. Table 3 contains state specific quotas and harvest that occurred in 2016. Table 4 displays the breakdown in directed versus bycatch landings by jurisdiction.

At their Annual meeting, the Board set the 2017 TAC at 200,000 mt (440.9 million pounds), a 6.45% increase from the 2016 TAC. State-specific quotas for the 2017 fishing year are displayed in Table 3. Florida's 2017 quota will be reduced by the amount of their overage in 2016 unless an inter-state quota transfer is processed.

Quota Monitoring

Menhaden purse seine and bait seine vessels (or snapper rigs) are required to submit Captain's Daily Fishing Reports (CDFRs). Maine and Virginia fulfilled this requirement in 2016. New Jersey

did not require purse seine vessels to fill out the specific CDFR but did require monthly trip level reporting on state forms that include complementary data elements to the CDFR. Rhode Island purse seine vessels must call in daily reports to RI DFW and fill out daily trip level logbooks. Massachusetts requires trip level reporting for all commercial fishermen.

Through Amendment 2, the Board approved timely quota monitoring programs for each state that were intended to minimize the potential for quota overages. Table 5 contains a summary of each state's approved quota monitoring system. Several states did exceed their quota and many pursued quota transfers to ameliorate this overage. In most cases, quota overages resulted from the fact that there was a high and/or variable volume of landings over a short period of time relative to the size of the quota.

Biological Monitoring Requirements

Amendment 2 implemented monitoring requirements for non *de minimis* states as follows:

- One 10-fish sample (age and length) per 300 metric tons landed for bait purposes for ME, NH, MA, RI, CT, NY, NJ, and DE; and
- One 10-fish sample (age and length) per 200 metric tons landed for bait purposes for MD, PRFC, VA, and NC.

Table 6 provides the number of 10-fish samples required for 2016. These are based on the best available 2016 total bait landings data (including bycatch and episodic events) provided to the Commission by the states. Table 6 also provides the number of ages and lengths collected by the states in 2016, and an indication of the gear type sampled during collections. All states met the biological monitoring requirements of Amendment 2 in 2016.

Adult CPUE Index Requirement

Amendment 2 required that, at a minimum, each state with a pound net fishery must collect catch and effort data elements for Atlantic menhaden as follows; total pounds landed per day, number of pound nets fished per day. These are harvester trip level ACCSP data requirements. In May of 2013, the Board approved North Carolina's request to omit this information on the basis that it does not have the current reporting structure to require a quantity of gear field by harvesters or dealers. All other states with a pound net fishery met this requirement.

Chesapeake Bay Reduction Fishery Cap

Amendment 2 implemented a change to the Chesapeake Bay Cap for the reduction fishery, starting in 2013 and continuing indefinitely. The cap is set at 87,216 metric tons (a 20% reduction from 109,020 mt which was the average landings from 2001-2005). Harvest for reduction purposes shall be prohibited within the Chesapeake Bay when 100% of the cap is harvested from the Chesapeake Bay. A maximum of 10,976 mt of un-landed fish under the Cap can be rolled over into the subsequent year.

Reported reduction landings from the Chesapeake Bay for 2016 was less than 45,000 metric tons, which is below the Cap. As a result, the 2017 Chesapeake Bay Cap for the reduction fishery is 98,192 metric tons. The rollover applies to the following year only, and will not be carried for multiple years.

De Minimis Status

To be eligible for *de minimis* status, a state's bait landings must be less than 1% of the total coastwide bait landings for the most recent two years. State(s) with a reduction fishery are not eligible for *de minimis* consideration. If granted *de minimis* status by the Board, states are exempt from implementing biological sampling as well as pound net catch and effort data reporting. The Board also approved a *de minimis* exemption for New Hampshire, South Carolina and Georgia from implementation of timely reporting

The states of New Hampshire, Pennsylvania, South Carolina, Georgia, and Florida requested and qualify for *de minimis* status for the 2017 fishing season. As a result, the PRT recommends that New Hampshire, Pennsylvania, South Carolina, Georgia, and Florida be granted *de minimis* status.

VIII. Plan Review Team Recommendations

Management Recommendations

- That the Board approve the *de minimis* requests from New Hampshire, Pennsylvania, South Carolina, Georgia, and Florida.
- That jurisdictions which repeatedly, or grossly, exceed their quota implement more frequent reporting to avoid overages.

IX. Literature Cited

- Atlantic States Marine Fisheries Commission (ASMFC). 1981. Fishery Management Plan for Atlantic Menhaden. 146 pp.
- ASMFC. 1992. Fishery Management Plan for Atlantic Menhaden 1992 Revision. 170 pp.
- . 2001. Amendment 1 to the Interstate Fishery Management Plan for Atlantic Menhaden. 146 pp.
- . 2004. Addendum I to Amendment 1 to the Interstate Fishery Management Plan for Atlantic Menhaden. 52 pp.
- . 2011. Addendum V to Amendment 1 to the Interstate Fishery Management Plan for Atlantic Menhaden. 17 pp.
- . 2012. Amendment 2 to the Interstate Fishery Management Plan for Atlantic Menhaden. 114 pp.
- . 2013. Technical Addendum I to Amendment 2 to the Interstate Fishery Management Plan for Atlantic Menhaden. 4 pp.
- . 2016. Addendum I to Amendment 2 to the Interstate Fishery Management Plan for Atlantic Menhaden. 12 pp.
- Southeast Data, Assessment, and Review (SEDAR). 2015. SEDAR 40 – Atlantic Menhaden Stock Assessment Report. SEDAR, North Charleston SC. 643 pp.

Table 1. Average landings under the bycatch allowance from 2013–2016 by gear type (stationary and mobile) and jurisdiction. Highlighted cells represent the gear type with the highest landings within a jurisdiction. (C) = confidential landings, and (-) = no landings. Total confidential landings are 183,747 pounds (i.e., the sum of all C's in the table below). Note that sum of pounds and percent of total columns do not include confidential data.

| State/Jurisdiction | ME | RI | CT | NY | NJ | DE | MD | PRFC | VA | FL | Sum lbs (NonConf) | % of Total |
|---------------------------------------|-------|--------|-----|---------|---------|--------|-----------|---------|-----------|---------|-------------------|------------|
| Stationary Gears While Fishing | | | | | | | | | | | | |
| Pound net | - | 47,907 | - | 96,176 | C | - | 1,943,711 | 688,428 | 112,609 | - | 2,888,830 | 61.36% |
| Anchored/stake gill net | - | C | 913 | 0 | 79,850 | 23,227 | 19,722 | 1,704 | 966,832 | C | 1,092,248 | 23.20% |
| Pots | - | - | - | C | - | C | C | - | - | C | - | 0.00% |
| Fyke nets | - | - | - | - | C | - | C | 26 | 77 | - | 103 | 0.00% |
| Mobile Gears While Fishing | | | | | | | | | | | | |
| Cast Net | - | C | - | 152,669 | C | - | C | - | - | 150,585 | 303,253 | 6.44% |
| Drift Gill net | - | - | - | 24,443 | 83,697 | 53,381 | 12,061 | - | 62,189 | - | 235,771 | 5.01% |
| Purse Seine | C | - | - | - | - | - | - | - | - | - | - | 0.00% |
| Seines Haul/Beach | - | - | - | 177,173 | - | - | C | 35 | 3,840 | - | 181,048 | 3.85% |
| Trawl | - | C | C | 6,565 | C | - | - | - | - | - | 6,565 | 0.14% |
| Hook & Line | - | C | C | - | - | - | C | - | - | C | - | 0.00% |
| Sum lbs (NonConf) | - | 47,907 | 913 | 457,025 | 163,547 | 76,608 | 1,975,494 | 690,193 | 1,145,547 | 150,585 | 4,707,818 | |
| % of Total | 0.00% | 1.02% | | 9.71% | 3.47% | 1.63% | 41.96% | 14.66% | 24.33% | 3.20% | | |

Table 2. Total number of bycatch trips by year from 2013-2016 separated into 1,000 pound landings bins.

| Bins (LBS) | 2013 Trips | 2014 Trips | 2015 Trips | 2016 Trips | Total Trips | % of Total Trips 2013-2016 |
|--------------|--------------|--------------|--------------|--------------|---------------|----------------------------|
| 1-1000 | 1,875 | 3,673 | 3,163 | 1,450 | 10,161 | 69% |
| 1001-2000 | 252 | 517 | 582 | 148 | 1,499 | 10% |
| 2001-3000 | 148 | 318 | 316 | 73 | 855 | 6% |
| 3001-4000 | 110 | 190 | 139 | 48 | 487 | 3% |
| 4001-5000 | 131 | 206 | 132 | 48 | 517 | 4% |
| 5001-6000 | 158 | 265 | 196 | 108 | 727 | 5% |
| 6000+ | 130 | 109 | 140 | 33 | 412 | 3% |
| Total | 2,804 | 5,278 | 4,668 | 1,908 | 14,658 | |

Table 3. Results of 2016 quota accounting in pounds. Note, in this table, the 2016 landings do not include bycatch landings because they do not count towards the TAC. Unused episodic events set aside quota that was re-allocated to the states totaled 331,895 pounds. The 2017 quotas account for overages which occurred in the 2016 fishery.

| State | 2016 Quota | Returned Set Aside | Transfers | Total 2016 Quota | 2016 Landings | Overage | 2017 Quota |
|--------------|--------------------|--------------------|-------------|--------------------|--------------------|--------------|-------------|
| ME | 161,466 | 131 | 1,800,000 | 1,961,597 | 1,090,050 | | 171,882 |
| NH | 123 | 0 | | 123 | 0 | | 131 |
| MA | 3,438,630 | 2,783 | (35,986) | 3,405,427 | 3,069,433 | | 3,660,454 |
| RI | 73,457 | 59 | 35,986 | 109,502 | 109,443 | | 78,195 |
| CT | 71,537 | 58 | | 71,595 | 66,957 | | 76,152 |
| NY | 227,365 | 184 | 492,823 | 720,372 | 720,372 | | 242,032 |
| NJ | 45,893,335 | 37,145 | | 45,930,480 | 45,630,950 | | 48,853,880 |
| DE | 54,153 | 44 | | 54,197 | 54,153 | | 57,646 |
| MD | 5,628,568 | 4,556 | | 5,633,123 | 4,328,016 | | 5,991,662 |
| PRFC | 2,545,595 | 2,060 | | 2,547,655 | 2,399,154 | | 2,709,809 |
| VA | 349,873,884 | 283,180 | (1,500,000) | 348,657,064 | 333,848,603 | | 372,443,990 |
| NC | 2,020,645 | 1,635 | (877,823) | 1,144,457 | 860,761 | | 2,150,995 |
| SC | - | - | | - | 0 | | - |
| GA | - | - | | - | 0 | | - |
| FL | 72,030 | 60 | 85,000 | 157,090 | 161,260 | 4,170 | 74,279 |
| Total | 410,060,788 | 331,895 | - | 410,392,683 | 392,339,152 | 4,170 | |

Table 4. Directed, bycatch, and episodic landings (pounds) for 2016 by jurisdiction.

| | Directed | Bycatch | Episodic |
|--------------|--------------------|------------------|------------------|
| ME | 1,090,050 | C | C |
| NH | | | |
| MA | 3,069,433 | | |
| RI | 109,443 | C | C |
| CT | 66,957 | | |
| NY | 720,372 | C | C |
| NJ | 45,630,950 | 195,523 | |
| DE | 54,153 | 21,085 | |
| MD | 4,328,016 | 870,638 | |
| PRFC | 2,399,154 | 105,669 | |
| VA | 333,848,603 | 296,861 | |
| NC | 860,761 | | |
| SC | | | |
| GA | | | |
| FL | 161,260 | 111,165 | |
| Total | 392,339,414 | 2,175,736 | 3,810,145 |

Table 5: State quota reporting timeframes in 2016. The **bold** text indicates which reporting program (dealer or harvesters) the states use to monitor its quotas.

| State | Dealer Reporting | Harvester Reporting | Notes |
|-------|--|-----------------------------|---|
| ME | monthly | monthly/daily | Harvesters landing greater than 6,000 lbs must report daily during episodic event |
| NH | weekly | monthly | Exempt from timely reporting. Implemented weekly, trip level reporting for state dealers. |
| MA | weekly | monthly/daily | Harvesters landing greater than 6,000 lbs must report daily |
| RI | twice weekly | quarterly/daily | Harvesters using purse seines must report daily |
| CT | weekly/monthly | monthly | No directed fisheries for Atlantic menhaden |
| NY | Weekly | monthly | Capability to require weekly harvester reporting if needed |
| NJ | weekly | monthly | All menhaden sold or bartered must be done through a licensed dealer |
| DE | — | monthly/daily | Harvesters landing menhaden report daily using IVR |
| MD | monthly | monthly/daily | PN harvest is reported daily, while other harvest is reported monthly. |
| PRFC | — | weekly | Trip level harvester reports submitted weekly. When 70% of quota is estimated to be reached, then pound netters must call in weekly report of daily catch. |
| VA | — | monthly/weekly/daily | Purse seines submit weekly reports until 97% of quota, then daily reports. Monthly for all other gears until 90% of quota, then reporting every 10 days. |
| NC | monthly (combined reports) | | Single trip ticket with dealer and harvester information submitted monthly. Larger dealers (>50,000 lbs of landings annually) can report electronically, updated daily. |
| SC | monthly (combined reports) | | Exempt from timely reporting. Single trip ticket with dealer and harvester information. |
| GA | monthly (combined reports) | | Exempt from timely reporting. Single trip ticket with dealer and harvester information. |
| FL | monthly/weekly (combined reports) | | Monthly until 50% fill of quota triggers implementation of weekly. |

Table 6. Biological monitoring results in 2016. Note that total bait landings includes bycatch landings.

| State | #10-fish samples required | #10-fish samples collected | Age samples collected | Length samples collected | Gear/Comments |
|--------------|---------------------------|----------------------------|-----------------------|--------------------------|---|
| ME | 7 | 9 | 9 | 9 | purse seine |
| MA | 5 | 7 | 7 | 7 | purse seine (2), cast net (5) |
| RI | 0 | 5 | 60 | 60 | floating fish trap |
| CT | 0 | 1 | 5 | 5 | gill nets |
| NY | 2 | 9 | 90 | 90 | seines |
| NJ | 69 | 113 | 1130 | 1130 | purse seine (100), and other gears (13) |
| DE | 0 | 5 | 50 | 50 | drift gill net |
| MD | 12 | 19 | 247 | 732 | pound net |
| PRFC | 6 | 9 | 90 | 90 | pound net |
| VA | 71 | 82 | 820 | 820 | pound net (16), gill net (64), haul seine (2) |
| NC | 2 | 6 | 60 | 60 | gillnet, seine |
| Total | 116 | 265 | 2,568 | 3,053 | |

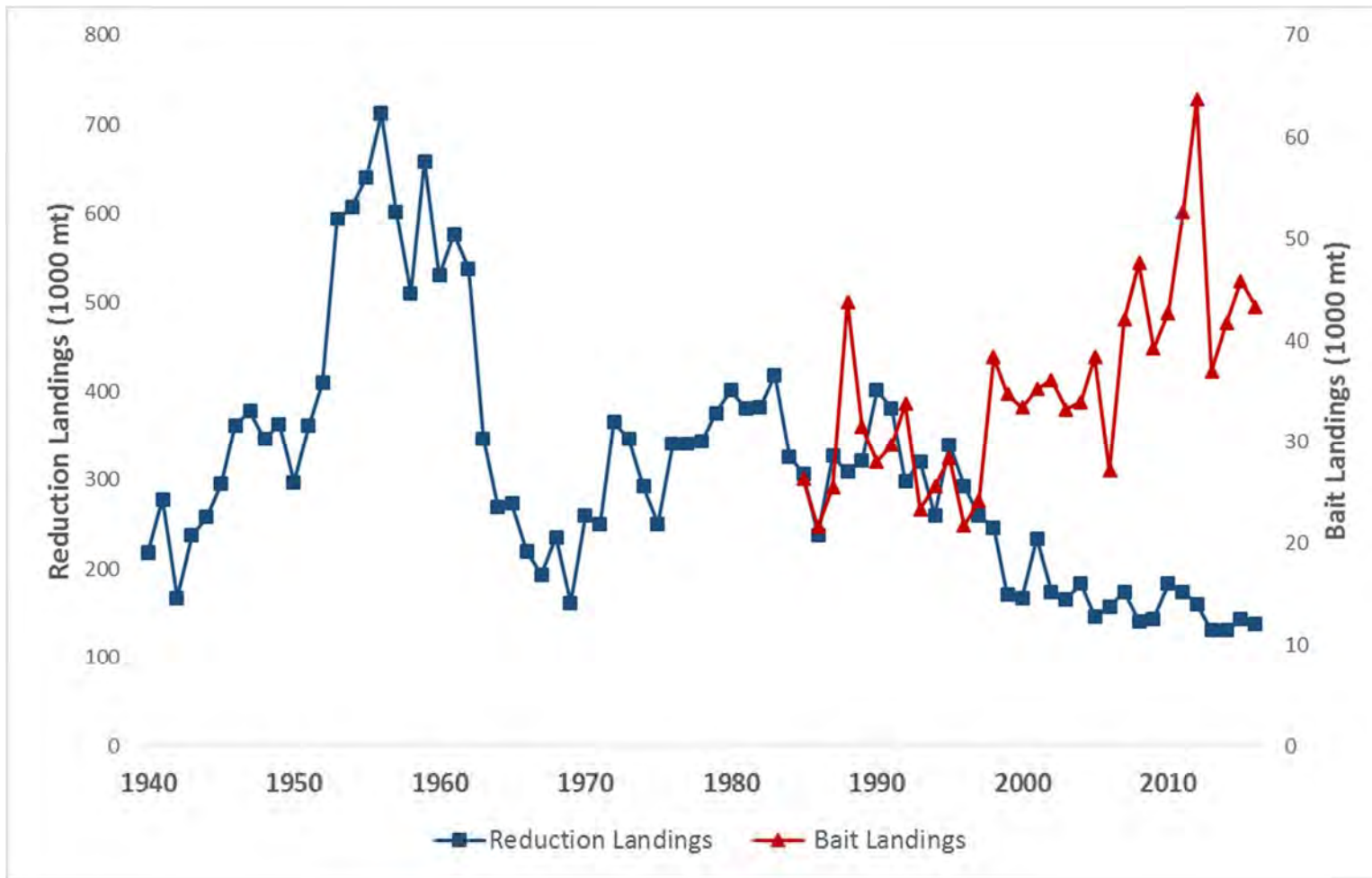


Figure 1. Landings from the reduction purse seine fishery (1940–2016) and bait fishery (1985–2016) for Atlantic menhaden. Note: there are two different scales on the y-axes.

LIVING BIRD

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SPRING 2017 VOL. 36, ISSUE 2



Lessons from the Osprey Garden

Six decades ago, a dwindling Osprey population in Connecticut told the story of DDT contamination in an ecosystem. Today one conservation scientist says abundant Osprey reflect the success of environmental regulations—and the need to manage a critical coastal fishery.

STORY BY ANNE SEMMES; PHOTOS BY MELISSA GROO

Much of biologist-naturalist Paul Spitzer's life has moved in time with the seasonal rhythms of one bird, the Osprey, and one place—the “Osprey garden.”

In late spring he paddles his canoe into the Great Island saltmarsh, 500 acres of prime Osprey habitat where the Connecticut River flows into Long Island Sound. In this marshy inlet, Spitzer checks for action in nests among 35 Osprey platforms that have been erected here since the late 1950s. As he disembarks,

the resident Ospreys take to anxious flight. He raises a pole topped with a mirror over a platform nest. These days, he sees abundant breeding success in the mirror's reflection—three healthy young birds with ragged crests and brown-spangled wings. But it wasn't always this way.

Spitzer first stepped onto Great Island nearly 60 years ago, as an 11-year-old boy in 1957. That year, he accompanied birding legend Roger Tory Peterson on a Christmas Bird Count. Thus began a mentorship that set Spitzer onto a career path to becoming an ecologist.

When Spitzer graduated from college, Peterson urged him to take up the question of what was causing a sudden and drastic decline among the Ospreys.

“At that time, the curtain was rising on the great DDT drama,” says Spitzer.

From the 1960s through the 1970s, Spitzer watched Ospreys almost disappear from Connecticut, and he pioneered experiments that helped establish DDT as a cause of their decline. He has also seen Ospreys make a triumphant recovery in the Connecticut River estuary. And with more than 300 active nests recorded in the state today, he is now turning his attention below the water, where the next challenge for Osprey is a vanishing fish.

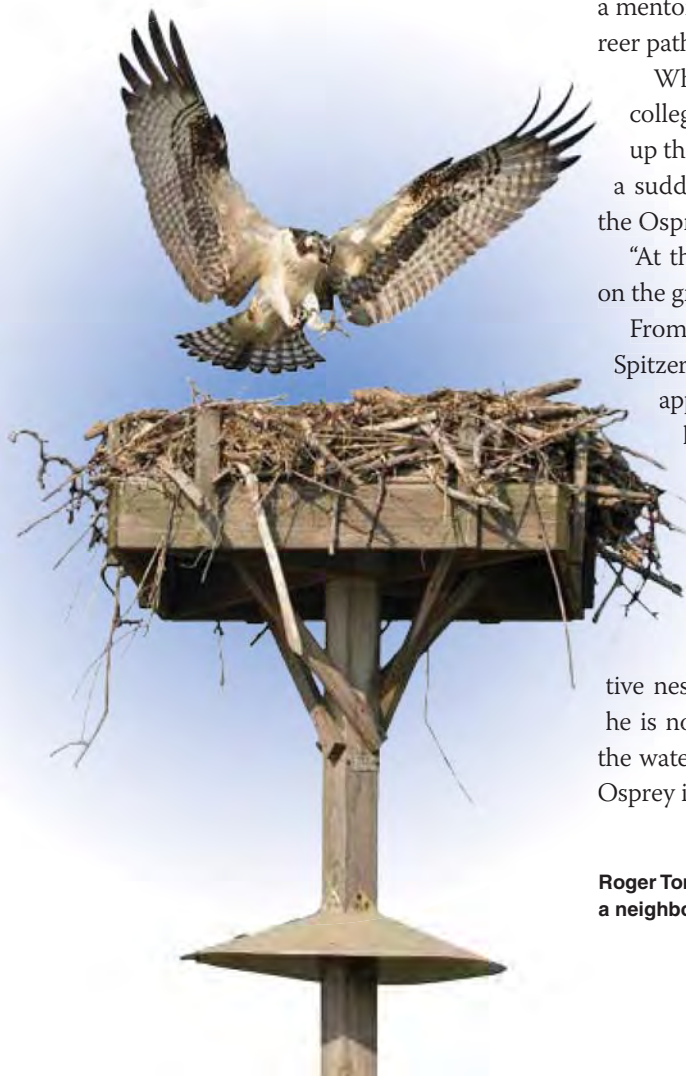


Ecologist Paul Spitzer has been watching the Ospreys in the Connecticut River estuary for almost 60 years.

PETERSON TRACKED THE DECLINE OF LOCAL OSPREYS from 150 in the 1950s to just 13 in 1965. He and his wife Barbara tried to help the Ospreys by building dozens of nest platforms to protect their nests from predators such as raccoons. But the birds still weren't bringing forth fledglings. Food didn't seem to be a problem—there was no shortage of menhaden, the large-headed bait fish that is one of the Osprey's primary food sources in Long Island Sound. Spitzer had spent hours watching the fish hawks rising from the water with menhaden nearly a foot long in their oversized talons.

“Roger began to suspect DDT,” Spitzer says. In the 1940s and 50s, DDT was used to control mosquito popu-

Roger Tory Peterson and his wife Barbara raised the first platforms in the “Osprey garden,” a neighborhood of artificial nesting structures in the Great Island saltmarsh.



lations in residential areas, especially along coasts and near wetlands. “He had a hunch the Ospreys were ingesting the DDT from fish. Rachel Carson’s findings were informing our discouraging field studies, and I was cutting my teeth as an ecologist studying this new paradigm of environmental toxicology.”

During nest checks, Spitzer found thin-shelled, collapsing eggs and was reminded of a British study that showed similar thinning in Peregrine Falcon eggs.

Shortly after receiving his biology degree from Wesleyan University, Spitzer had the idea to isolate local ecological effects in Connecticut by switching eggs in Osprey nests there with eggs from a healthy population of breeding Osprey near Chesapeake Bay.

“Not nearly as much DDT was applied to Maryland saltmarshes, and it was probably diluted in the far larger Chesapeake system,” says Spitzer. By performing the switch, he could isolate whether the problem was with local environmental conditions or intrinsic to the Connecticut eggs.

The Patuxent Wildlife Research Center in Maryland signed on to Spitzer’s

idea and provided staff to collect eggs.

From the outset, Spitzer saw the Maryland eggs hatch healthy chicks in Connecticut, but not vice versa.

“The embryos in Connecticut eggs died, and we found the shells to be thin by simple measurement,” he says. “We also found dented or collapsed eggs in some Connecticut nests.” None of these problems affected the Maryland eggs.

Next, he arranged transfers of young nestlings from Maryland to Connecticut, to look beyond egg problems. The results were the same: “Virtually all the Maryland nestlings fledged in Connecticut, [so there were] no problems with food at this time. The failure was egg viability,” Spitzer says. Later lab tests revealed DDE (a breakdown product of DDT) as well as PCBs and another organochloride, dieldrin, at much higher concentrations in the Connecticut eggs compared to the Maryland eggs.

“All signs pointed to Roger’s hunch being right, that it was DDT,” he says.

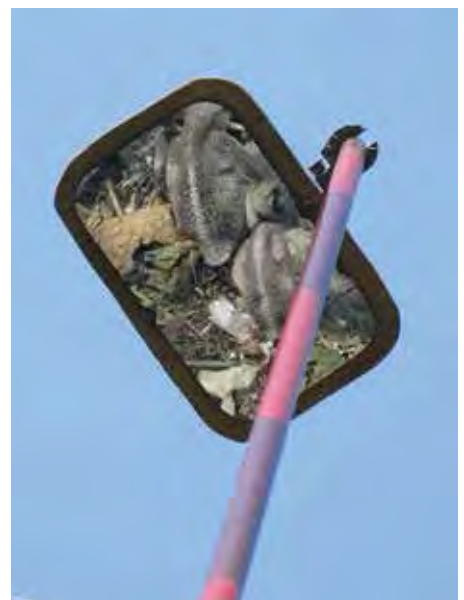
DDT was banned in Connecticut in 1972, and two years later Osprey numbers on Great Island bottomed out, with just a single nest remaining as the

vestiges of DDT made their way out of the ecosystem.

Today, there are approximately 100 active nests at Great Island and the overflow is helping populations at nearby Gardiners Island and eastern Long Island grow. Statewide, the Connecticut Audubon Society’s Osprey Nation monitoring project recorded 337 active nests in 2016, and 490 fledged young throughout the state—a rate nearly double that which Spitzer had calculated was necessary for a stable Osprey population.

Numbers like these, along with steady positive trends along Breeding Bird Survey routes, help explain why breeding Ospreys are now abundant and widespread in Connecticut and throughout the eastern United States. Spitzer points to a combination of factors including an increase in artificial nest sites, a decrease in harmful residues in their food sources, and continued high levels of food availability, particularly Atlantic menhaden.

FOR THE LAST THREE SUMMERS the Connecticut Audubon Society has sponsored Spitzer’s ongoing work in the Connecticut River estuary, but the aim



Spitzer uses a mirror attached to a telescopic pole to check on Osprey nests (left). Back in the 1960s, he would often see collapsed eggs in the mirror’s reflection. Today he typically sees healthy eggs (middle) or nestlings (right). Photos by Anne Semmes.

of the research has now shifted to monitoring the relationship between Osprey and menhaden.

As in the 1960s, Spitzer's attention is again focused on Great Island, now fittingly protected as a Roger Tory Peterson Wildlife Area. During June and July, Spitzer has documented that the Ospreys' diet is 95 percent to 100 percent menhaden. Spitzer says the story is much the same from Connecticut to Virginia, with menhaden-fueled Osprey nesting colonies experiencing a revival.

"Over 50 years of Osprey study, we have moved from the sad story of DDT-induced egg failure and a declining population to the happy story of abundant Ospreys," Spitzer says. "Our ongoing legacy from Osprey study must be the management of the East Coast ecosystem for abundant menhaden. We have to leave enough menhaden in the water to perform their precious and essential economic and ecological functions."

Rich in oils and fat, menhaden live in Atlantic coastal waters ranging from Nova Scotia to northern Florida, but reach peak abundance in and around the Chesapeake Bay. In addition to serving as the primary food source for breeding Ospreys and their chicks along the New England coast, menhaden are

also a main food source for striped bass and bluefish. And, they constitute a significant fishery for people—second only to pollock among the ranks of fish harvested by volume in the United States. But people don't eat menhaden for dinner. They process it into other forms, mostly pills.

Most of the nearly 200,000-metric-ton annual menhaden catch is rendered into omega-3 fatty acid fish oil for the health supplement industry. And most of that catch comes via purse-seine fishing, in which two fishing boats circle around a single school of fish and enclose it within a gigantic net. These operations are extremely efficient at catching huge volumes of fish. Only one state (Virginia) currently allows purse-seine fishing of menhaden, but the fish caught in the Chesapeake Bay and Virginia waters account for 85 percent of the total menhaden harvest.

Because a large share of the range-wide menhaden population is clustered in the mid-Atlantic region, harvests there have a significant effect on the population as a whole. As the fish-oil market boomed in the 1990s and 2000s,

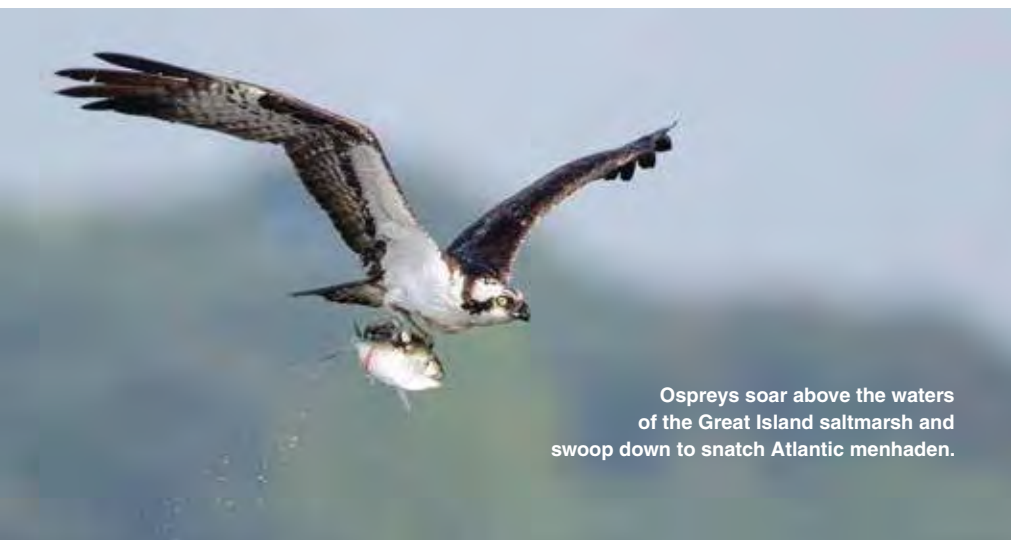
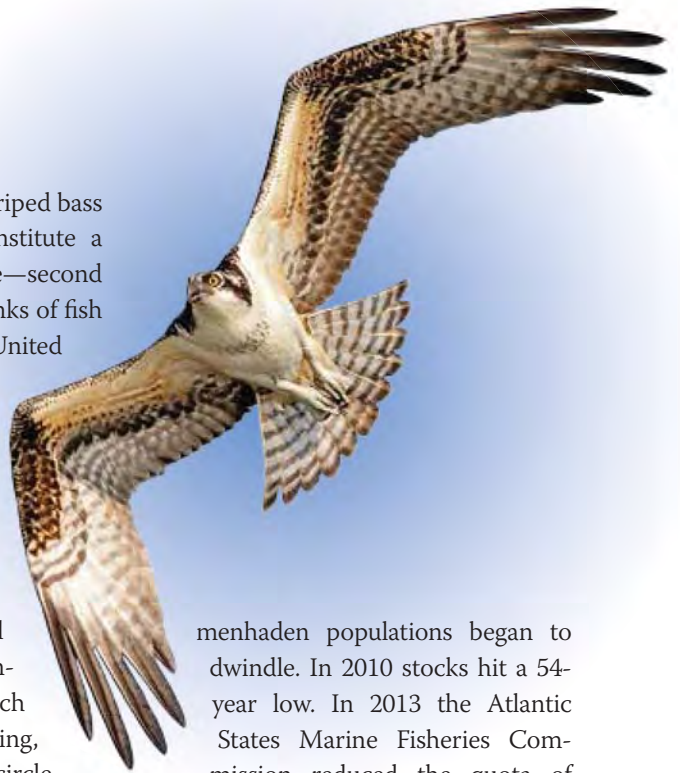
menhaden populations began to dwindle. In 2010 stocks hit a 54-year low. In 2013 the Atlantic States Marine Fisheries Commission reduced the quota of commercial menhaden harvest by 20 percent. Spitzer attributes the recent robust East Coast Osprey populations to the renewed health of the menhaden fishery following these new rules.

"It was a huge win," says Spitzer.

But now, many ocean conservationists say menhaden are once again coming under intense fishing pressure. In 2015 and 2016, the quota was increased by about 10 percent, and the menhaden quota for 2017 has been increased by about 6 percent from 2016. Some industry representatives are suggesting that the menhaden quota could be raised by up to 30 percent without harming the overall fishery.

Spitzer thinks the ASMFC should be more conservative in what it allows so that the menhaden population doesn't crash again, as it did earlier this decade. He also thinks the continued abundance of menhaden is critical to the continued abundance of Ospreys.

"It is a great blessing to have been able to study Ospreys for 50 years and counting. I have observed so many positive outcomes for these birds over the years," Spitzer says. "Decisions about menhaden now will affect not only fish, but birds, coastal ecosystems and, in the end, every one of us."



Ospreys soar above the waters of the Great Island saltmarsh and swoop down to snatch Atlantic menhaden.



HOME

NEWS

NEWS BY REGION

RADIO

ABOUT

MEMBERSHIP

NEW STUDY CHALLENGES EARLIER FINDINGS REGARDING LINK BETWEEN PREDATORS, FORAGE FISH

WHEN DOES FISHING FORAGE SPECIES AFFECT THEIR PREDATORS?

Changes in predator populations are largely unrelated to the number of forage fish.

We found abundance trends for 50 of the 86 species identified in this study.

We identified **86** different populations of dependent predators.

1 invertebrate

52 commercially important fish species or stocks

33 top predators (seabirds and marine mammals)

More prey **DOES NOT** always mean more predators. **ONLY 5 out of 50** comparisons showed a significant positive relationship between prey abundance and predator rate of change.

Where forage fish are located is likely more important to predators than how many there are.

When forage fish are at **HIGH ABUNDANCE**, they are spread out over a large area, making them harder to find. **By keeping their reproductive sites in a core region, predators will have access to forage fish even at low abundance.**

When forage fish are at **LOW ABUNDANCE**, they are concentrated in a small area, making them easier to find.

Past studies ignored the natural variation in forage fish populations from year to year. Previous studies have found that, even without being fished, fish populations have a **5%** chance of falling below their natural equilibrium levels.¹ If natural variation were not a factor, the probability should be zero.²

Predators generally target small forage fish that are unaffected by fishing.

Mean size of Atlantic Menhaden... Eaten by a striped bass in Massachusetts was **8.4 cm**

Taken by the fishery **28 cm**

1. Hare, A., & Maynard, R.D. (2009). The effects of fishing on the population dynamics of the North Atlantic cod fishery. *ICES Journal of Marine Science*, 66(1), 1-11.
2. Hilborn, J.C., & Walters, D.P. (1992). *Quantitative fisheries management: a practical guide to fishery assessment, modeling, and fisheries improvement*. Boca Raton, FL: CRC Press.
3. Hilborn, J.C., & Walters, D.P. (1992). Population consumption of fish and invertebrate prey by striped bass (*Morone saxatilis*) in the northern Massachusetts, USA, and New Brunswick, Canada. *Journal of Fish Biology*, 40(1), 1-11.

National Coalition For Fishing Communities

WASHINGTON (Saving Seafood) – April 3, 2017 – A [new study](#) published today in *Fisheries Research* finds that fishing forage fish may have a smaller impact on their predators than previously thought. The study, authored by a team of marine scientists led by renowned University of Washington fisheries expert Dr. Ray Hilborn, calls into question previous forage fish research that may have overestimated the effect of fishing of forage fish on their predators.

The study, “When does fishing forage species affect their predators?,” finds that changes in predator populations are largely unrelated to the abundance of forage fish. It also shows that the distribution of forage fish is more important to predators than their overall abundance, and that many predators prefer smaller forage fish that are largely unaffected by fishing. Based on these results, the authors recommend that forage fishing policies be created on a case-by-case

basis.

The paper's findings point to issues with previous forage fish research, most notably a five-year-old study funded by the Lenfest Ocean Program, managed by The Pew Charitable Trusts, which it says failed to consider important variables like the spatial distribution of forage fish. Arguably the largest oversight in past research was the high natural variability of forage fish populations, even in the absence of fishing, the authors write.

“There is little evidence for a strong connection between forage fish abundance and the rate of change in the abundance of predators,” the authors write. “The fact that few of the predator populations evaluated in this study have been decreasing under existing fishing policies suggests that current harvest strategies do not threaten the predators and there is no pressing need for more conservative management of forage fish.”

The authors suggest that the lack of a strong relationship between forage fish and their predators is the result of “diet flexibility” – the idea that predators can switch between prey species, helping them defend against the high natural variability of forage fish populations.

This finding contradicts the widely reported conclusions of the Lenfest Forage Fish Task Force in 2012. The study, “Little Fish, Big Impact,” claimed that forage fish are twice as valuable to humans when they are left in the water, rather than fished, because of their great importance to predator species. Based on this conclusion, the Lenfest group recommended cutting forage fish catch rates across the board by 50 to 80 percent.

But Dr. Hilborn and his coauthors advocate for a more nuanced approach, writing that previous models “were frequently inadequate for estimating impact of fishing forage species on their predators” and that “a case by case analysis is needed.” The team explicitly calls into question the Lenfest study's recommendations, which it says are “not appropriate for all species.”

“Relevant factors are missing from the analysis contained in [the Lenfest] work, and this warrants re-examination of the validity and generality of their conclusions,” the authors write. “We have illustrated how consideration of several factors which they did not consider would weaken the links between impacts of fishing forage fish on the predator populations.”

These missing elements include how fishing mortality compares with the natural variability of forage species, the spatial structure of forage fish populations, and the overlap between the sizes of forage fish eaten by predators and size taken by the fishery.

“It must be remembered that small pelagic fish stocks are a highly important part of the human food supply, providing not only calories and protein, but micronutrients, both through direct human consumption and the use of small pelagics as food in aquaculture,” the paper concludes. “Some of the largest potential increases in capture fisheries production would be possible by fishing low trophic levels much harder than currently.”

[Read an infographic about the study here](#)

[Watch a video about the study here](#)

PAUL RANDOLPH SPITZER: Osprey Scientific Research Summary, 1968-2017, 50 Years

My initial round of osprey research was 1968-1978. **The first focus** was demonstrating the role of food-chain DDE (and locally dieldrin, such as the Connecticut River Estuary, "CRE") in excessive adult mortality and egg hatching failure, resulting in population crash. This work included the egg transfer experiments of 1968-69, MD to CT; and 1973, VA to eastern Long Island ("ELI").

Several resulting publications documented DDE impact, including one on eggshell thinning, in Ogden 1972 (sometimes cited as 1977). This culminated in our 1978 multiauthor Science paper on osprey reproductive recovery in ELI-CT as DDE residues declined very substantially.

My second focus was population dynamics, as reported in my 1980 Cornell U. PhD thesis (under Tom Cade). Beginning with a 1969 nest survey, I learned that the remaining ospreys breeding between NYC and Boston, perhaps 10% of the pre-DDT population, were now a discrete population of ~140 active nests. Over the following decade, in painstaking field studies, I measured (or recorded from other informants) key population parameters such as total annual breeding population size, annual natality, annual adult survival rate, ages at first breeding, and fledging-to-breeding dispersal. This empirical data enabled me to create a model that estimated Replacement Rate to be ~0.8 young fledged/active nest, in a population artificially depressed relative to available resources. The subsequent decades of North American osprey population explosion, both in range and density, have demonstrated this low replacement rate. (This quantitative relationship may well hold in Europe, too.)

My third round of field research, beginning in 1982, was primarily located on the MD Eastern Shore of Chesapeake Bay. I built on the extensive scientific population study publications and unpublished nestling banding studies of Jan Reese locally, and Mitchell Byrd south across the Bay in tidewater VA. I trapped 136 banded breeding ospreys, thus birds of known age and origin. Using my PhD thesis model equation, I made what I consider to be definitive statements about population regulation via competition for good quality nest sites and mates in this stable Eastern Shore population. Here, mean age at first breeding was at least two years higher than my depressed 1970's thesis population study to the north. This delay in a key reproductive parameter brought natality and mortality into balance, resulting in a stable population. Presumably, this delayed reproduction is also current in the expanding menhaden-fueled CRE, CT, population, where limited predator-proof nest platforms force extensive tree-nesting, and even (completely unsuccessful) ground-nesting at Great Island state wildlife management area, the social core of this famous, historical colony. Density-dependent population regulation has become operative, despite abundant food.

A second fascinating finding of the Chesapeake MD banded-breeder trapping study (N=136) was the extreme conservatism of male dispersal from fledging site to breeding site. 83% of males moved 10 km or less, and none moved more than 50 km. None of Byrd's male fledglings crossed the Bay to enter my trapped male breeder sample (N=41). However, 21% of my large sample (N=95) of trapped female breeders moved more than 50 km, and most of those had crossed the Bay from Byrd's long-term VA study. I even trapped one female that **I** had banded as a nestling up in faraway CT! These findings were entirely consistent with a smaller dispersal sample (N=72, 33 males, 39 females) from my 1970's northern thesis population. These results were a major justification for hacking fledgling ospreys in food-rich habitats far from their current geographic nesting locales. Such projects have often proved very successful.

The **fourth focus** of my work has been food limitation of osprey reproductive success, nesting density, and breeding population size--with a particular focus on the varying abundance and local distribution of migratory adult **Menhaden** *Brevoortia tyrannus* as a fundamental prey base species. As early as 1970-75, a period of reduced menhaden abundance, brood size reduction due to nestling starvation was evident at the famous historic Gardiners Island, NY, colony (mean y/an 0.55). In 1973, I placed VA eggs in Gardiners nests: 10 of them hatched, but only 4 fledged, similar to nestling starvation losses among young that originated on Gardiners. **Gardiners has been the anomaly among post-DDT osprey recovery: It is a paradigm for food limitation.** I hypothesize it is currently a "Menhaden Colony", surrounded by miles of open bay water, historically prime menhaden habitat, but somewhat deficient in other prey. Gardiners reproduction and subsequent nest count recovery (affected by local replacement rate and conservative male dispersal) lagged until a period of renewed migratory adult menhaden abundance 1976-1993. Then Gardiners reproduction rose well above replacement rate (mean y/an 1.04), and nest numbers increased to a peak of 71 in 1994. This was followed by another 18 years, 1994-2011, of depressed menhaden, and Gardiners gradually declined to only 22 active nests, with mean annual reproduction below replacement rate (0.69 y/an). Finally, with active menhaden management 2013-2016, the nest count has doubled to 44, with mean annual reproduction of 1.25 young/active nest. If management for menhaden abundance continues, Gardiners could approach 100 nests in 5 years, and then begin to approach historic nest counts well above that in a decade. This revealing 48-year time-series of Gardiners data, which I began in 1969 and collected through 1978, has been maintained by Michael Scheibel of TNC since 1977. His faithful tenacity, and the constant interest and goodwill of the owners, continues to yield a classic, world-class set of ecological data. Of course, it's also a lot of fun to visit this grand island colony and learn the annual results.

The **fifth focus** of my work has been the population ecology of the neotropical osprey subspecies Ridgway's Osprey, a four-year project 2014-2017, in cooperation with my 40+ year colleague Alan Poole. These non-migratory birds lack most of the distinctive mask, and their plumage is paler, possibly a combination of genetic differences and constant sun-bleaching? They are sparsely and locally distributed around the Caribbean and the Bahamas, always at low density, with weak reproduction and small brood sizes. We have focused our study on the 150-mile coastline of offshore Belize, 18 degrees to 16 degrees North, because it is accessible, and there are enough nests to permit our survey. These are the southernmost osprey nests in the New World, except for some recent anecdotal extralimital reports in temperate South America.

Currently, we have visited 25 active nests in 2014-2016, and estimate their cumulative reproductive rate at very roughly 0.35 young/active nest. Although this would be a recipe for population crash among North American migratory ospreys, subspecies *carolinensis*, it is possible that the *ridgwayi* subspecies can eke out stability at this level. Entering 90% annual adult survival and mean age at first breeding of 3 years into my old thesis equation, 0.35 y/an works as a replacement rate. More Belize survey and a larger multiyear sample size is needed to evaluate the situation.

A further local condition: Virtually all nests are in mangroves, often dead, and gumbo limbos, relatively unstable nest sites that face tropical storms. So nest site limitation is probably part of Belize osprey population ecology, and also contributes to nest failures. We hope to encourage placement of stable nest platforms: high and over water. This would be the latest osprey experiment, if we can pull it off. We know how very well it has succeeded at many sites in North America.

Megan Ware

From: Comments
Sent: Friday, March 31, 2017 1:00 PM
To: Megan Ware
Subject: FW: Menhaden
Attachments: PastedGraphic-6.pdf; ATT00001.htm

Follow Up Flag: Follow up
Flag Status: Completed

From: Jack Irvin [mailto:jirvin0721@gmail.com]
Sent: Tuesday, March 21, 2017 5:01 PM
To: Comments <comments@asmfc.org>
Subject: Menhaden

I feel that is criminal the amount of menhaden you allow omega protiens to steal from our oceans, so much of our coastal wildlife rely on this resource yet you allow a corporate conglomerate to indiscriminately rape this resource purely for profit. It is shameful and you must be held accountable for this crime against nature

Jack Irvin
jirvin0721@gmail.com

Megan Ware

From: dgsdiehard@aol.com
Sent: Sunday, February 05, 2017 9:10 PM
To: Megan Ware
Subject: Menhaden stocks

All nets should be banned in the United States. You guys are five years behind the curve when it comes to endangered species. By the time you figure it out their already in jeopardy but the powers that be just turn a blind eye....I have fished the east coast for thirty years so let's just kill all the tuna, Cobia, Rockfish and whatever else is left out there and be done with it!!!

So sad, so very sad!
757 237 3760

Sent from my iPhone

Atlantic States Marine Fisheries Commission

Executive Committee

*May 10, 2017
8:00 – 9:30 a.m.
Alexandria, Virginia*

Draft Agenda

**The order in which these items will be taken is subject to change;
other items may be added as necessary.**

A portion of this meeting may be a closed session for Committee members and Commissioners only

1. Welcome/Call to Order (*D. Grout*)
2. Committee Consent
 - Approval of Agenda
 - Approval of Meeting Summary from February 2017
3. Public Comment
4. Report of the Administrative Oversight Committee
 - Presentation of FY18 Proposed Budget
5. Discussion on Advisory Panel Members Serving as Board Proxies
6. Consider the Necessity for Technical Committee Meeting Weeks (*R. Beal*)
7. Future Annual Meetings Update (*L. Leach*)
8. Executive Director's Annual Performance Review (*R. Beal*) **Closed Session**
9. Other Business/Adjourn

Please Note: Breakfast will be served at 7:45 a.m.

The meeting will be held at the Westin Alexandria; 400 Courthouse Square; Alexandria, VA; 703.253.8600

Vision: Sustainably Managing Atlantic Coastal Fisheries

**MEETING SUMMARY OF THE
ATLANTIC STATES MARINE FISHERIES COMMISSION
EXECUTIVE COMMITTEE**

**Westin Alexandria
Alexandria, VA
February 1, 2017**

INDEX OF MOTIONS

1. **Approval of Agenda by Consent. (Page 2)**
2. **Approval of Meeting Summary from October 25, 2016 by Consent. (Page 2)**
3. **Motion to approve the FY16 Audit as presented. Mr. Abbott/Mr. Gilmore The motion passed unanimously. (Page 2)**
4. **Motion to roll these funds forward until future year NOAA budget is more clear. Mr. Boyles/Mr. Blazer. The motion passed unanimously. (Page 2)**
5. **Motion to approve the Standard Meeting Practices document. Mr. Keliher/Mr. Abbott The motion passed unanimously. (Page 2)**
6. **Motion to approve the Guidelines for State-Housed Employees as presented. Mr. Boyles/Mr. McNamee. The motion passed unanimously. (Page 3)**
7. **Adjournment by Consent (Page 3)**

ATTENDANCE

Committee Members

| | |
|--|--|
| Pat Keliher, ME | Andy Shiels, PA |
| Doug Grout, NH | John Clark, DE |
| Dennis Abbott, NH (LA Chair) | David Blazer, MD |
| David Pierce, MA | Rob O'Reilly, VA (proxy for John Bull) |
| Mark Alexander, CT (proxy for Craig Miner) | Michelle Duval, NC (proxy for Braxton Davis) |
| Jason McNamee, RI | Robert Boyles, SC |
| Jim Gilmore, NY | Pat Geer, GA (proxy for Spud Woodward) |
| Emerson Hasbrouck, NY (GA Vice Chair) | Jim Estes, FL |
| Russ Allen, NJ | |

(GA = Governor Appointee; LA = Legislative Appointee)

Other Commissioners

David Borden, RI (GA)
Ed O'Brien, MD (LA proxy)
Ritchie White, NH (GA)

Staff

| | |
|-------------|-------------|
| Bob Beal | Laura Leach |
| Mike Cahall | |
| Geoff White | |

Others

| | |
|--------------------------|------------------------|
| John Bullard, NMFS-GARFO | Cheri Patterson, NHF&G |
| Wilson Laney, USFWS | |
| Derek Orner, NMFS | |
| Dan McKiernan, MA DMF | |

CALL TO ORDER

The Executive Committee of the Atlantic States Marine Fisheries Commission convened in the Banneker Room of the Westin Alexandria in Alexandria, Virginia February 1, 2017. The meeting was called to order at 8:00 a.m. by Chair Doug Grout.

APPROVAL OF AGENDA

The agenda was approved with the addition of: 1) Review of the Guidelines for State-housed employees; 2) AP/Board Membership and 3) Update on the changes at NOAA by John Bullard.

APPROVAL OF PROCEEDINGS

The summary minutes from the October 25, 2016 meeting were approved as presented.

PUBLIC COMMENT

There was no public comment.

FY16 AUDIT

Staff presented the FY16 Audit and noted that the Commission was in sound financial position. While staff does not agree with the findings of the auditor, staff recommended approval of the audit. Mr. Abbott moved to approve the audit as presented. Mr. Gilmore seconded this motion and it passed unanimously.

Staff noted that the Commission was decreasing its indirect rate therefore there will be more funds in the direct category in the ACFCMA, ACCSP and IJF grants to spend. With a new Administration and uncertainty as to the NOAA budget, the Executive Committee decided to leave these funds in reserve. Mr. Boyles moved to “roll these funds forward until future year NOAA

budget is more clear.” Mr. Blazer seconded and the motion passed unanimously.

STANDARD MEETING PRACTICES DOCUMENT

Staff presented the revised standard meeting practices document and there was discussion on several issues.

Executive Director Beal explained that the document was separate into two sections; the first section is mandatory and the second section is discretionary, but recommended. This document will be added to the Commissioner Manual, and added to the website with other standard meeting materials.

Mr. Keliher moved to approve the Standard Meeting Practices document. Mr. Abbott seconded this motion and it passed unanimously.

ACCSP UPDATE

Staff presented an update on ACCSP data collection and warehousing activities, as well as the integration of ACCSP fully into the Commission and noted the transition is going very well. Staff also noted that the launch and subsequent first year of APAIS could not have gone any better.

USE OF MANAGEMENT BOARDS & SECTIONS

Executive Director Beal explained the history of Sections versus Management Boards, noting that Sections were established as a result of Amendment One to the Compact, which was approved in 1950. The Management Boards were established as a result of the State Federal Program established in 1980, and subsequently have

been used to implement the provisions of ACFCMA. The major difference between Sections and Boards is the membership of the Sections is limited to Commissioners and the Commission has regulatory authority; the Boards include the federal government, DC & PRFC and do not have regulatory authority. A robust discussion ensued with the decision to continue using Boards and Sections as they currently are, since the current approach is meeting the needs of the member states.

STATE-HOUSED EMPLOYEES

Given the increased number of ASMFC employees being housed in the states, staff presented guidelines that capture the processes being followed when dealing with State-housed employees. One question to follow up on regarding auto insurance when staff are using their personal vehicle. Mr. Boyles moved to approve the Guidelines for State-Housed Employees as presented. Mr. McNamee seconded and the motion passed unanimously.

BOARD PROXY/AP MEMBER SITUATION

Mr. Hasbrouck voiced concern about AP members who serve as a Board proxy and present information as though acting on behalf of the AP when it might not be the case, and they are offering their personal opinion. There was lengthy discussion on

this issue at the end of the meeting's allotted time, so staff was directed to summarize the

comments and the previous guidelines dealing with this issue and put it on the agenda for the May meeting.

NOAA LEADERSHIP UPDATE

Mr. Bullard provided an update on the transition in NOAA leadership due to the change in Administration. His bottom line message was that NOAA has a lot of support on the Hill, and the NOAA staff is continuing to focus on doing their jobs. He summarized who is in acting positions until final appointments are made.

ADJOURN

CHAIR DOUG GROUT adjourned the Executive Committee meeting at 9:50 a.m.

Atlantic States Marine Fisheries Commission

Coastal Sharks Management Board

*May 10, 2017
9:45 – 10:45 a.m.
Alexandria, Virginia*

Draft Agenda

The times listed are approximate; the order in which these items will be taken is subject to change; other items may be added as necessary.

1. Welcome/Call to Order (*R. Miller*) 9:45 a.m.
2. Board Consent 9:45 a.m.
 - Approval of Agenda
 - Approval of Proceedings from October 2016
3. Public Comment 9:50 a.m.
4. Final Rule for Highly Migratory Species (HMS) Amendment 5b (Dusky Sharks) 10:00 a.m.
 - Review Final Rule for HMS Amendment 5b (*K. Brewster-Geisz*)
 - Review Advisory Panel Report (*L. Gillingham*)
 - Consider Complementary Management Measures (*R. Miller*) **Possible Action**
5. Other Business/Adjourn 10:45 a.m.

The meeting will be held at the Westin Alexandria; 400 Courthouse Square; Alexandria, VA; 703.253.8600

MEETING OVERVIEW

Coastal Sharks Management Board Meeting

May 10, 2017

9:45 – 10:45 a.m.

Alexandria, Virginia

| | | |
|---|---|---|
| Chair: Roy Miller (DE) Assumed Chairmanship: 5/2017 | Vice Chair: VACANT | Law Enforcement Committee Representative: Chrisolm Frampton |
| Coastal Shark Technical Committee Chair: Carolyn Belcher (GA) | Coastal Shark Advisory Panel Chair: Lewis Gillingham (VA) | Previous Board Meeting: October 24, 2016 |
| Voting Members: ME, MA, RI, CT, NY, NJ, DE, MD, VA, NC, SC, GA, FL, NMFS, USFWS (15 votes) | | |

2. Board Consent

- Approval of Agenda
- Approval of Proceedings from October 2016

3. Public Comment – At the beginning of the meeting public comment will be taken on items not on the Agenda. Individuals that wish to speak at this time must sign in at the beginning of the meeting. For agenda items that have already gone out for public hearing and/or have had a public comment period that has closed, the Board Chair may determine that additional public comment will not provide additional information. In this circumstance the Chair will not allow additional public comment on an issue. For agenda items that the public has not had a chance to provide input, the Board Chair may allow limited opportunity for comment. The Board Chair has the discretion to limit the number of speakers and/or the length of each comment.

| |
|--|
| <h4 style="margin: 0;">4. Final Rule for Highly Migratory Species (HMS) Amendment 5b (Dusky Sharks)</h4> |
| <p>Background</p> <ul style="list-style-type: none"> • Dusky sharks have been a prohibited species since 2000, and may not be landed or retained in any fisheries. However, commercial and recreational fisheries sometimes interact with the species as bycatch during the course of normal operations. • Based on the results of the 2016 stocks assessment update (SEDAR 21), NMFS has determined that the status of the Atlantic dusky sharks continues to be "overfished" and "subject to overfishing". • The Board will review the recreational and commercial measures that now apply to federally permitted vessels. The Board could complement the federal measures and require state licensed fishermen to abide by some or all measures. • Final Rule for HMS Amendment 5b and the Coastal Sharks Advisory Panel Report discussing the new federal measures are in Briefing Materials |

5. Other Business/Adjourn

**DRAFT PROCEEDINGS OF THE
ATLANTIC STATES MARINE FISHERIES COMMISSION
COASTAL SHARKS MANAGEMENT BOARD**

**The Harborside Hotel
Bar Harbor, Maine
October 24, 2016**

These minutes are draft and subject to approval by the Coastal Sharks Management Board.
The Board will review the minutes during its next meeting.

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Adjournment11

INDEX OF MOTIONS

1. **Approval of agenda by consent** (Page 1).
2. **Approval of proceedings of August 2016 by consent** (Page 1).
3. **Move to approve the 2017 coastal sharks specifications via an email vote after NOAA Fisheries publishes the final rule for the 2017 Atlantic Shark Commercial Fishing season** (Page 10). Motion by Tom Baum; second by Rob O'Reilly. Motion carried (Page 10).
4. **Move to approve Roger Wooleyhan Jr. and Charles Witek as members of the Coastal Sharks Advisory Panel** (Page 11). Motion by Michael Luisi; second by Steve Heins. Motion carries without objection (Page 11).
5. **Motion to adjourn** by consent (Page 11).

ATTENDANCE

Board Members

| | |
|--|---|
| Rep. Sarah Peake, MA (LA) | Mike Luisi, MD, proxy for D. Blazer (AA) |
| David Pierce, MA (AA) | Rachel Dean, MD (GA) |
| Bill Adler, MA (GA) | Rob O'Reilly, VA, proxy for J. Bull (AA) |
| David Borden, RI (GA) | Kyle Schick, VA, proxy for Sen. Stuart (LA) |
| Eric Reid, RI, proxy for Sen. Sosnowski (LA) | Cathy Davenport, VA (GA) |
| Jason McNamee, RI, proxy for J. Coit (AA) | Chris Batsavage, NC, proxy for B. Davis (AA) |
| Colleen Giannini, CT, proxy for D. Simpson (AA) | Doug Brady, NC (GA) |
| Lance Stewart, CT (GA) | David Bush, NC, proxy for Rep. Steinburg (LA) |
| Steve Heins, NY, proxy for J. Gilmore (AA) | Robert Boyles, Jr., SC (AA) |
| Tom Fote, NJ (GA) | Malcolm Rhodes, SC (GA) |
| Adam Nowalsky, NJ, proxy for Asm. Andrzejczak (LA) | Pat Geer, GA, proxy for Rep. Nimmer (LA) |
| T. Baum, NJ, proxy for D. Chanda (AA) | Spud Woodward, GA (AA) |
| Craig Pugh, DE, proxy for Rep. Carson (LA) | James Estes, FL, proxy for J. McCawley (AA) |
| John Clark, DE, proxy for D. Saveikis (AA) | Wilson Laney, USFWS |
| Roy Miller, DE (GA) | Margo Schultz-Haugen, NMFS |
| Ed O'Brien, MD, proxy for Del. Stein (LA) | Karyl Brewster-Geisz, NOAA |

(AA = Administrative Appointee; GA = Governor Appointee; LA = Legislative Appointee)

Ex-Officio Members

Staff

Robert Beal
Toni Kerns

Ashton Harp
Amy Hirrlinger

Guests

The Coastal Sharks Management Board of the Atlantic States Marine Fisheries Commission convened in the Statesbury Grand Ballroom of the Bar Harbor Club, Harborside Hotel, Bar Harbor, Maine, October 24, 2016, and was called to order at 2:01 o'clock p.m. by Chairman Adam Nowalsky.

CALL TO ORDER

CHAIRMAN ADAM NOWALSKY: Let me call to order this meeting of the Coastal Sharks Management Board. I am Adam Nowalsky; and I am joined by FMP Coordinator Ashton Harp.

APPROVAL OF AGENDA

CHAIRMAN NOWALSKY: Our first order of business today will be to approve the agenda. Please note that there is an additional agenda item.

Agenda Item Number 6, which is on the written agendas that are available here in the room, but is different from the meeting materials; To Review and Populate an Advisory Panel membership. Actually, there were two applications that we received after the meeting materials. That will be the new Item 6. Again, it is on the printed agenda here in the room.

Is there any objection to approving the agenda as provided? Seeing none; that stands approved.

APPROVAL OF PROCEEDINGS

CHAIRMAN NOWALSKY: Our next order of business will be to approve the proceedings from the August, 2016 meeting. Is there any objection to approving those proceedings as provided? Seeing none; they stand approved.

PUBLIC COMMENT

CHAIRMAN NOWALSKY: Our next order of business will be public comment for any item not on the agenda. Is there any public comment from the audience? Seeing none; we'll keep moving on.

UPDATES FROM NOAA FISHERIES HMS DIVISION

CHAIRMAN NOWALSKY: Our next order of business is to receive update from NOAA Fisheries HMS Division. There are four bullet points here that are going to help inform us for our setting of the 2017 fisheries specifications.

We'll go through each of the presentations. We'll stop at the end of each presentation for questions before we move forward. None of the presentations, as they're presented here, until we get on to the next agenda item, will require any management action by the board; until we get to the specifications.

With that, we'll turn to the presentation. All of these presentation materials are also found in your meeting materials. The first item Amendment 5b on Dusky Sharks is in the supplemental materials and information for the other three presentations were in the original meeting materials.

REVIEW PROPOSED RULE FOR HMS AMENDMENT 5B (DUSKY SHARKS) AND 2016 STOCK ASSESSMENT RESULTS

MS. KAROL BREWSTER-GEISZ: Hello, everyone. For those of you who don't know me, my name is Karol Brewster-Geisz; I work for the Highly Migratory Species Management Division of NOAA Fisheries. I will be giving you four presentations. This first one on Amendment 5b for Dusky Sharks will take the longest amount of time. The other ones will be fairly short.

For those of you have been waiting, we finally have the proposed rule out, an amendment on dusky sharks. I'm just going to jump into it. We've been working to manage dusky sharks appropriately for a long time. In 2000, we made them a prohibited shark species, which means that no one can fish for or retain or land this species. We've had a couple of assessments since then that indicated the stock is overfished with overfishing occurring.

Back in last October, so a year ago, Oceana did submit a lawsuit suing us for not taking management action fast enough. Last May we did settle with them. The settlement agreement included a timeline. It did not require us to take any particular action, but it did require that we issue the proposed rule by October 14th, which we made that deadline.

The final rule we need to submit to the Federal Register by March 31st of next year. We have a new stock assessment that once again indicates the stock is still overfished with overfishing occurring. I am here today to talk to you about the proposed rule. A little bit about the stock assessment. We just published the results on October 5th.

This chart shows the phase plot. As you can see, there are a lot of dots there. The green colored dots are the ones from the most recent assessment. As you can see, it is still overfished/overfishing corner, but they are much closer to the line than previous assessments. It indicates that we need to reduce fishing mortality by 35 percent in order to rebuild the stock by the year 2107.

This slide has a lot of words. These are our preferred alternatives. Again, all of these alternatives are designed to reduce fishing mortality by 35 percent. For recreational, we have two preferred alternatives. The first one, Alternative A2, would require that permit holders fishing recreationally for sharks obtain a shark endorsement.

This alternative would also require a lot of outreach on our part, and it is something that we would look to all of you and your states to help us with the outreach; particularly, with state water fishermen, on how to help them identify sharks; particularly ridgeback sharks such as duskies, and also how to release them to minimize mortality.

We also have Alternative A6a, and this would require the use of circle hooks in the recreational shark fishery. We are defining that

as using natural baits and wire or heavy monofilament fluorocarbon leaders. By heavy, we mean greater than 200 pound test. This is an alternative that we are looking specifically for comments on.

We have a couple of other alternatives that are similar to this that look at hook size or look at tournaments. These two alternatives would be required for all people fishing recreationally for sharks. In federal waters, that means anybody with an HMS angling permit, HMS charter headboat permit, or either the general category tuna or general category swordfish permits fishing in a tournament; would need to have the shark endorsement and would need to use circle hooks.

Commercially we have four alternatives, all in the similar vein of trying to reduce fishing mortality overall. Alternative B3 is requiring the limited access permit holders, the pelagic longline fishermen, to if they are releasing sharks, release sharks either with a dehooker or with a maximum of three feet line from the hook. Again, this is trying to reduce the amount of gear left on the shark to increase the shark's survivability. Alternative B5 is requirement for the pelagic bottom longline fishermen and gill netters to attend an extra module in the workshops they already need to attend. The workshops are safe handling and release of sea turtles and marine mammals. This would add another module on safe handling and release of sharks. Alternative B6 is increasing dusky shark outreach. This would be outreach to the commercial fishery.

Once again, we would definitely be looking to you and all of your states to help with this, and also implementing a dusky shark communication and relocation protocol for pelagic longliners. If they catch a dusky, they would need to let people in the area know that there are dusky sharks in the water, to watch out for them; and then also to move one nautical mile from their last set.

All of these alternatives, these first three alternatives are very similar to what we have in place right now for sea turtles and marine mammals. The last commercial alternative we prefer is Alternative B9, and this would require the use of circle hooks by bottom longline fishermen. Right now, those fishermen use a combination of J and circle hooks, so we would require that they just use circle hooks.

Again, these are our preferred alternatives. We believe that the use of all these alternatives will reduce fishing mortality by at least 35 percent, possibly more. We also looked at a number of other alternatives. These are the other alternatives we looked at for recreational. The ones I want to really point your attention to would be Alternative A6b and A6c; these are the other alternatives regarding circle hooks in the recreational fishery.

These are the other alternatives we looked at commercially. We looked at quite a large range. The last thing we looked at for implementation in this amendment is to clarify annual catch limits for all prohibited species, including dusky sharks. We are clarifying that our annual catch limit or ACL will be 0 for all the species that are listed.

This is allowable under Magnuson, as long as the small levels of bycatch do not lead to overfishing. Obviously, with dusky sharks we still have overfishing, so our accountability measures for dusky sharks are actually the preferred alternatives within Amendment 5b. We don't believe any other accountability measures or AMs are needed for dusky sharks or the other prohibited shark species.

We are asking for comments on the entire document, but specifically on these bullet points up here, including the ACL and AM approach. Alternative A2, which is the shark endorsement, so what is the best way to implement those in terms of affective date? Should it be right when the final rule publishes; should we wait for the beginning of the next fishing year?

We're also looking specifically for comments on Alternative A6a and A6b; those are the circle hook requirements for recreational fishing. We really want to find the best definition for recreational shark fishing; so we are not impacting other recreational fisheries such as swordfish or cobia or spiny dogfish even. We want to impact only our shark fishermen. The comment period for Amendment 5b closes on December 22. This is how you submit the comments, and there are a lot of public hearings and webinars coming up. That's it.

CHAIRMAN NOWALSKY: Before we go to questions, let me turn briefly to Ashton.

MS. ASHTON HARP: I would encourage states to submit public comments by the December 22 date. I also have a question for Karol. You had multiple other recreational alternatives that were not part of the preferred, so should states not comment on those since they are not the preferred ones or should they still comment on them if they feel that they would not like to have those in their state waters?

MS. BREWSTER-GEISZ: We want comments on all the alternatives, so if you and your state prefer an alternative that we considered but did not prefer, we would love to hear that as well.

CHAIRMAN NOWALSKY: I will just comment that for anyone not familiar, this is a 100-year rebuilding plan, so those dates in here, 2107, 2108; those are the dates we were looking at. I saw a couple heads perk up with those initially. Let me then turn to board for questions regarding the presentation; Bill Adler first.

MR. WILLIAM A. ADLER: I noticed in the chart, you had the sand tiger shark. Is that in that amendment, as well?

MS. BREWSTER-GEISZ: Sand tiger is one of our prohibited shark species, so that is one of the ones where we are clarifying the ACL is equal to 0 for.

MR. ADLER: Okay, if I may. Because I noticed the chart here, and it has in Massachusetts, the inshore section of Massachusetts, and also south of the Cape. What is the intention as to the sand tiger shark in this? Is it going to affect the fishermen in that area?

MS. BREWSTER-GEISZ: There is nothing in Amendment 5b that would affect fishermen with sand tiger sharks. Sand tiger sharks are a prohibited species, so no one can retain them.

MR. ADLER: Okay, but you're not planning to come in and say well, because you might catch a sand tiger shark you can't fish here?

MS. BREWSTER-GEISZ: No. There is nothing in this for that. I am wondering if you're talking about Amendment 10, where we are proposing some updates to essential fish habitat for sand tiger.

MR. ADLER: Well, the chart I'm looking at here is Alternative 6b continued, and I just noticed that they have a section in Massachusetts where they've got it sort of filled in. I was curious whether or not any further action for those actions was going to come when one of these amendments got through.

MS. BREWSTER-GEISZ: That is the alternative for Amendment 10, and Amendment 10 is just establishing essential fish habitat; it does not have any regulations or impact on any fisherman.

MR. ADLER: Thank you.

CHAIRMAN NOWALSKY: We'll get to that in a couple moments; any further questions on Amendment 5b? Toni.

MS. TONI KERNS: I don't have a question for Karol, but since I didn't see any more commissioners with questions, sometimes the board would like us, as the commission, to write in comments on behalf of the board; other times we do not, because of the diversity of the interest of the states on coastal sharks. Is this

something that the board would like the commission to submit comments on? Just because you just saw it today, are you unsure? We would need some direction if you did want us to submit comments.

CHAIRMAN NOWALSKY: Let me turn to Ashton and she can provide some guidance, perhaps, on her suggestion for the individual states submitting comments, as opposed to a board specific comment. Ashton, did you have anything to offer the board for moving in that direction versus a board-specific comment?

MS. HARP: Just looking at the options, the preferred alternatives are available. It seems like states generally do handle the shark public comments individually, but there is nothing to say that we could not apply these as a group letter. Some of these apply to like the pelagic longline, which does not apply in state waters, so we would not even comment on those alternatives. But some of the recreational measures, such as requiring a shark endorsement, we could, as a group, say whether we like that or do not like that. It is up to the board.

CHAIRMAN NOWALSKY: Toni, would you need a specific action by the board here today, or if the individual states put their comments together and wanted to submit them individually, they could; but could also run them all by Ashton, and if she felt there was a common theme could draw up a letter that we could pass along? What action would you need there today?

MS. KERNS: If the board would like us to submit some version of the comments, and we don't have to have the specific recommendations right now; but we would need to get recommendations from board members. We would just need to know that today so that we can make that recommendation to the Policy Board for the Policy Board to approve sending comments in.

Then we can work with the states and you to draft that letter, and then send it back out to the board before we submitted it to NOAA by the December 22nd deadline. We have a lot of time to do that. But if we did want to send a group letter, we would have to run it by the Policy Board.

CHAIRMAN NOWALSKY: Let me turn to the board and get some specific feedback on that option right now. Is the preference to allow states to individually submit their comments, or would the board like to have this board recommend the Policy Board send in comments that would be compiled; understanding that that would not prohibit any state from submitting comments on their own, as well. Can I get any comments on that? Rob O' Reilly.

MR. ROB O'REILLY: I prefer Option 2 there. I know in the past we've talked about for other measures for sharks about how to proceed, and at the last minute some of the states have done something; so if they can still do that, it would be good to have something come from the Policy Board.

CHAIRMAN NOWALSKY: Not seeing an overwhelming interest in further discussing it, let me ask if there is any objection to having those comments compiled by Ashton. The individual states could send them in to staff and then that letter could be drafted and then the Policy Board would take action; so we would want to make that recommendation to them at this meeting. Do you need a formal motion, Toni, or is that sufficient to move that forward to the Policy Board?

MS. KERNS: If there is no objection, then that is sufficient.

CHAIRMAN NOWALSKY: Is there any objection? Okay, seeing none; that's how we'll proceed with recommending to the Policy Board to submit comments. What type of timeline, Toni, would you want those comments from individual states to make sure we can meet the December 22nd public comment date?

MS. KERNS: With the holidays thrown in there, it would be great if we could get everybody's comments no later than November 15th.

CHAIRMAN NOWALSKY: Okay, so staff would be looking for those comments by November 15th.

**PRESENTATION ON THE DRAFT
ENVIRONMENTAL ASSESSMENT FOR
AMENDMENT 10**

CHAIRMAN NOWALSKY: Okay, next let's move on to the presentation on the Draft Environmental Assessment for Amendment 10. We'll turn back to Karol for a presentation.

MS. BREWSTER-GEISZ: This is in regard to Draft Amendment 10, which is our EFH or essential fish habitat update. Magnuson identifies EFH as those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity. The EFH is for federally managed species only. It can occur in state waters, but it cannot occur in international waters.

We have designated and updated EFH several times in the past. Last year we issued a five-year review going through all the updated data, and determined we did need to update EFH. That is what we're doing now in Amendment 10. The purpose of Amendment 10 is to update essential fish habitat with recent information, and also to minimize to the extent practicable the adverse effects of fishing and non-fishing activities on EFH.

What I am presenting here is a very simplified version. It has only the alternatives that deal with the Atlantic; so if you are interested in any of the Gulf EFH alternatives, you would need to either ask me or Margo after this meeting, or watch one of our webinars or go to the public hearings.

We looked at two alternatives. One was not updating EFH and the other was updating EFH with updated data. We used the same alternative and the same methodology we had

used in the past, which is based on kernel density estimation; and that's what the pictures along the bottom show. We also looked at a number of habitat areas of particular concern, or HAPCs of EFH.

The HAPCs are a subset of EFH; they are meant to be rare, and to outline particularly susceptible to human induced degradation or has particular ecological importance to a federally managed stock. In terms of the HAPCs, there is Alternative 4b where we update the sandbar HAPC. The map on the left shows what the current HAPCs are for sandbar, and the map on the right is what we are proposing.

It is hard to see on the slides, but the hashed portion within Chesapeake Bay and Delaware Bay, for example, are the proposed HAPCs. What we are proposing is to make sure that the EFH and the HAPC for sandbar overlap, they didn't before; and also some changes to the HAPC. For example, Delaware Bay in its entirety would be a HAPC for sandbar shark, as opposed to just farther out. Also, we cut off some of the inshore portions of the Outer Banks, so just the offshore portion would be the HAPC. We are also proposing to create a new HAPC for lemon sharks off of Florida. That, again, is the hashed area off the east side of Florida; and this encompasses a juvenile aggregation site off of Cape Canaveral, and an adult aggregation site off of Jupiter.

We also looked at a couple of other alternatives, which would keep those two HAPCs separate. Alternative 6b is a new HAPC for sand tiger shark. This particular one is in the Delaware Bay, and then as Mr. Adler pointed out, there is also a proposal for a HAPC for sand tiger sharks in Massachusetts.

One of the things we wanted to make sure to note is that EFH and HAPCs are not time-area closures. There is no implementing regulations within this, this is just updating essential fish habitat for all of our species, and proposing HAPCs for some of our species. As I mentioned before, there are webinars and public hearings

that you can go to, to find out more information. The comment period also ends on December 22nd, so you just need to remember one date for all of HMS.

CHAIRMAN NOWALSKY: Any questions on the presentation? Dave Pierce.

DR. DAVID PIERCE: Yes, Karol, it has been a while since I focused on HAPCs regarding any species. Right now with the New England Council, when we talk about HAPCs, we always give the notice to stakeholders that potentially down the road something may be proposed that would involve more specific restrictions.

HAPCs for these sharks have been in place for a while, as you've noted. But now there are some new ones being proposed. My question is, with new ones being proposed, does that suggest that you and your shop will now begin to think about what else needs to be done within the HAPCs above and beyond what may be there now?

MS. BREWSTER-GEISZ: The proposed HAPCs would allow us to be consulted if there are new things going on in those areas. They are based on updated data that has come from the scientists, including scientists in the state of Massachusetts. They would not necessarily result in closures or impacts to anyone. But if somebody wanted to do something in those areas, like put up windmills or oil, they would need to consult with us.

DR. PIERCE: If I could just follow up with that.

CHAIRMAN NOWALSKY: Please do.

DR. PIERCE: In the Kingston, Plymouth, Duxbury Bay area, where there are many tigers and we've done a lot of research there, we know it's an important nursery ground. Are you saying that with this HAPC designation, either the Commonwealth or the towns, because the town waters, would have to consult if anything was going to be proposed for any operation within

the area, for example, some aquaculture operation?

MS. BREWSTER-GEISZ: That is my understanding, and I'm looking to Margo in case I'm wrong.

MS. MARGO SCHULZE-HAUGEN: It is for all federal activities, and so I think states activities would not necessarily be encompassed, but all federal actions; so Corps of Engineer, other fishery management or whatever, would come under that need to consult with us. Then we would give recommendations for changes to the activity that could reduce any impacts; assuming there were some, and those are not binding, they are recommendations.

MR. ADLER: Back to my Massachusetts blobs here. Nantucket Sound, you seem to have that whole place blocked off for the sharks. I'm just wondering that since we do have a trawl fishery in that. I'm not so worried about trap fisheries getting sharks in trouble or whatever. However, we have an active trawl fishery in that area for fluke and for squid and whatever.

I'm just worried that if this goes through, that the next step will be, wait a minute, we've got an essential fish habitat for the species, and you guys can take those things by – you wouldn't mean to – but you could take them, so we're going to have to kick you out. I mean, that is what I worry about.

CHAIRMAN NOWALSKY: Bill, I certainly think that that would be a suitable comment to rise. Again, the proposal is not implementing any restrictions on those fishing activities. I don't think Karol is going to sit here and say; yes the next step is -- because it is not there right now. But those concerns would be something to pass along as certainly very valid.

MR. ADLER: If I may. Now you say comment period ends December 22nd. Have you already had public hearings on this?

MS. BREWSTER-GEISZ: Yes, there has already been several, and consultations with some of the councils.

CHAIRMAN NOWALSKY: Are there any questions from the public on this item? Bringing it back to the board again, we're in the same situation with would the board like to have the Policy Board write a letter? Do the states expect to submit comments on this matter; that they would want that recommendation moved forward to the Policy Board like we did on the last item?

I would entertain any comments on that. I am not seeing any hands go up, so that would indicate to me that there is no intention for states to submit comments on a state basis; which wouldn't need our Policy Board to submit anything on behalf of the states. All right, I've got one hand up.

MR. W. DOUGLAS BRADY: Yes, I'm just going back to Bill Adler's question, in terms of exactly what type of impacts these expanded areas will have on different activities. There seems to be not a lot of clarity there. Am I missing something? Again, when you went to public comment on this and expansion of these areas, what was the notation on the various activities that might be impacted by the expansion of these areas?

CHAIRMAN NOWALSKY: Doug, I can only go by what has been presented to date, and that is that this draft amendment does not implement any additional restrictions on fishing and non-fishing activities. What happens in the future, I don't think any of us could sit here and say for sure what happens moving forward. All we can say is that this amendment itself does not contemplate any further restrictions.

MR. BRADY: Where would I find the impacts of these areas on the existing HAPCs? In other words, if you're expanding it, I assume their activities are impacted in the ones that already exist now, correct?

MS. BREWSTER-GEISZ: None of the existing EFH or HAPCs has regulations or restrictions. They are outlining areas that are important for the fish. There are other management measures we've put in place around some of them. For example, we have an area off of North Carolina that is closed because of sandbar, and that encompasses and includes area outside of sandbar HAPC area. But it is not a restriction caused by the HAPC. There are no restrictions caused by the current EFH or the current HAPCs.

CHAIRMAN NOWALSKY: All right Doug, if you could turn that microphone off, I would appreciate it. Margo, I saw your hands up. Did you have something to add, as well?

MS. SCHULZE-HAUGEN: I was just going to add again that the consultations are for activities that affect the habitat. They are separate from management actions, either due to bycatch or overfishing status. What this will do is require a consultation by other Feds to determine whether activities are doing would affect the habitat. Most HMS the habitat is salinity and temperature and things in the water column, and most fishing gear doesn't affect any of those.

There is some shark fishing gear, bottom longline gear in particular, that has had some impacts, and we have some closures that the Caribbean Council implemented and asked us to backstop, because of impacts on coral from the gear itself. It is very different from management measures based on stock status. This is more the habitat itself, and what activities could be impacting that. Again, it results in the consultation with recommendations if there is impact to reduce it, so just a little more clarification maybe. I can talk to anyone offline too, if they want more questions.

CHAIRMAN NOWALSKY: That brings us back to the issue of public comment on the matter, and I did not see any hands go up indicating that the states want the policy board to submit a

combined letter on their behalf. Again, that would not prohibit individual states from sending their own comments.

PROPOSED RULE FOR BLACKNOSE POSSESSION LIMITS

CHAIRMAN NOWALSKY: Seeing no further hands, we'll move on to the next bullet item; Proposed Rule for Blacknose Possession Limits. Turn back to Karol again.

MS. BREWSTER-GEISZ: As a little bit of background, this has a lot of words, but I won't spend a lot of time on it. For black nosed sharks we have two stocks; one in the Atlantic, one in the Gulf of Mexico. The one in the Atlantic is overfished with overfishing occurring. We have taken a number of actions, both in Amendment 5a, and more recently in Amendment 6, to restrict some of the quotas for blacknose, and also for non blacknose small coastal sharks.

Those quotas are linked, which means when blacknose closes the non blacknose small coastal shark quota closes, as well. Right now, the only place you are allowed to fish for blacknose sharks is south of 34 degrees north latitude, and only when the season is open. Below the red line you can fish for blacknose sharks.

Once blacknose is closed, you cannot fish for any small coastal sharks. North of the line you are allowed to fish for non blacknose small coastals, but you cannot retain any blacknose sharks. In the past few years we have had a few fishermen south of that red line who have begun targeting blacknose sharks, and this has resulted in a much shorter season for all small coastal sharks. We have closed all small coastals in September, 2013, July, 2014, June, 2015, and May, 2016. This is a result of fishermen going out and targeting blacknose sharks. As a result of this, the non blacknose small coastal quota has been under-utilized the past few years, while the blacknose shark quota has been exceeded a number of times.

We have had requests from fishermen and the South Atlantic Council to do something to fix this problem. We looked at three alternatives, one of which is status quo; do nothing, keep letting things go as they go. Another one, Alternative 2, was looking at establishing a non blacknose small coastal shark retention limit once the blacknose quota has been filled and that fishery is closed.

This would continue to allow non blacknose small coastals to be landed once the fishery has been closed. We looked at three subalternatives within that; 50 to 250 non blacknose sharks per trip. As part of that we would also be reducing the blacknose quota respectively to account for any of the dead discards that would continue to happen; if people were allowed to fish for non blacknose small coastals. That was Alternative 2.

We also looked at Alternative 3, which would be to establish a retention limit for blacknose sharks. We looked at three subalternatives here ranging from 50 to 8 blacknose sharks per trip. We preferred the alternative for 8 blacknose sharks per trip. This table shows some of the calculations on what would happen if we went down to 8 blacknose sharks per trip. Basically, we would allow a number of trips per year.

We are fairly confident we would be able to keep the entire fishery so blacknose and non blacknose small coastal sharks south of 34 degrees open the entire year, with a retention limit of 8. We had this proposed rule open in August and part of September. Most of the comments we received were in support of the 8 blacknose sharks.

Some fishermen wanted us to go even lower; they were not convinced that 8 would allow them to remain open year round. Other fishermen wanted us to be able to adjust that retention limit up and down, just like we do with large coastals. The comment period is currently closed. We are looking to have a final rule in effect for the start of the 2017 fishing

season. Once that happens, it would be something that we might ask this board to implement complementary regulations. That's it. Thank you.

CHAIRMAN NOWALSKY: As Karol indicated, for this proposed rule, a comment period has ended; so we're not looking for additional public comment on it. But are there any questions on the blacknose rule for Karol?

PRESENTATION OF THE PROPOSED RULE FOR THE 2017 ATLANTIC SHARK COMMERCIAL FISHING SEASON

CHAIRMAN NOWALSKY: Okay, seeing none; we'll move on to the Presentation of the Proposed Rule for the 2017 Atlantic Shark Commercial Fishing Season, which will then move us on to setting specifications here, ourselves. Karol.

MS. BREWSTER-GEISZ: The last presentation, this one is the fastest one. This is regarding our proposed rule for shark specifications. It published in August; the comment period ended at the end of September. Once again, we're not looking for comments. For the most part we proposed exactly the same as what we have in place currently. The changes here were, we proposed increasing the Atlantic smoothhound or smooth dogfish fishery based on the under harvest in this current year, and we also proposed not changing the blacknose shark quota as a result of those overharvests, and that is because this year we closed early enough that the underharvest from this year covered the large overharvest that had happened in the past. We proposed opening all shark management groups on January 1st, proposed starting in the Atlantic with a retention limit of 36 large coastal sharks other than sandbar per vessel per trip for directed permit holders.

Then we would change this limit between 0 and 55, depending upon what we found. This past year we increased it to 45, right around July 15, so we would expect the same type of increase next year. Currently, we have just reduced the

retention limit down to 25. We are trying to keep the fishery open the rest of the year. We are hopeful that the reduction to 25 sharks will do that.

Here is a table with really small print, but hopefully, if you're looking at your computer you can read it. This is just the proposal in its entirety. The other thing you should know is after our final rule last year we received a petition from a number of people, mostly scuba divers or environmentalists, who wanted us to delay the opening of the fishery in the Atlantic because of a lemon shark aggregation site off of Florida.

We reviewed those comments, decided to deny the request last year, because it provided no new or additional information, and did not present recent unforeseen events, recently discovered circumstances, or serious conservation or management problems in the fishery. We gave a presentation on the stock status of lemon sharks last March at our Advisory Panel meeting. We considered all of those comments again in this proposed rule and decided not to delay it. We proposed again January 1st.

We didn't receive any comments this year on lemon sharks. We have received some comments regarding the retention limits; some people in support of the 36, other people wanting a reduced trip limit in the beginning of the year to make sure that they have additional opportunities later in the year, and then some comments indicating that we should delay the Atlantic until the Gulf is closed, just to make sure that the market prices remain high. That's it on the presentation.

CHAIRMAN NOWALSKY: In the past year, with the goal of the board setting complimentary measures, we have the issue that the final rule itself has not been published. Last year we took an action that basically put the vote off to an electronic vote, an e-mail vote by board members; once that final rule was out. That is how we proceeded last year. With that said, are there any questions about the rule right

now, before we turn towards a motion for moving forward? Okay seeing non hands, I will entertain a motion on how to move forward. Tom Baum.

MR. TOM BAUM: Just similar to last year, **I do have a motion to move to approve the 2017 Coastal Shark Specifications via an e-mail vote after NOAA Fisheries publishes the final rule for the 2017 Atlantic shark commercial fishing season.**

CHAIRMAN NOWALSKY: Motion by Mr. Baum. I have a second from Mr. O'Reilly. Thank you for having that ready, thank you for staff having that ready. Is there any discussion on the motion? Is there any public comment on the motion? Now, Toni, just to clarify, since this is a final action; which we typically do roll call votes, but we're not taking the actual final action here today, and you'll be getting those via e-mail. That would essentially give you the roll moving forward, correct?

MS. KERNS: Correct.

CHAIRMAN NOWALSKY: I was going to give you the thumbs up back. We got both, thumbs up and a correct verbal. **All right, is there any objection to the motion? Okay, seeing none; the motion stands approved.** Thank you very much.

REVIEW AND POPULATE ADVISORY PANEL MEMBERSHIP

CHAIRMAN NOWALSKY: Next order of business, we'll turn to Tina Berger for applications for the advisory panel.

MS. TINA BERGER: I offer two advisory panel nominations for the board's consideration and approval, Roger Wooleyhan, Jr. a Maryland commercial fisherman, and Charles Witek, a New York recreational fisherman for nomination to the Coastal Sharks. In your materials you have Mr. Wooleyhan's nomination. We received Mr. Witek's late last week, and it has not been included. But we can forward it to you for further information, or I

could ask Mr. Heins to add anything that he feels needs to be added.

CHAIRMAN NOWALSKY: Let me ask Tina how we traditionally dealt with requests that we don't have the formal request and materials here at the meeting.

MS. BERGER: In the past, if there is no objection and the state is comfortable with that nomination, I would share, upon your approval, that nomination form to the board just as a follow up.

CHAIRMAN NOWALSKY: Steve, so you have anything you would like to add on that matter?

MR. STEPHEN HEINS: Just that the state supports the nomination of Charles Witek. He is an avid recreational fisherman. He is a part time outdoor writer. He is a member of our Marine Resource Advisory Council for the state. He is a former member of the Mid-Atlantic Council, served a term on the Mid-Atlantic. We think he's a strong candidate.

CHAIRMAN NOWALSKY: I'll turn to the board for a motion on one or both or none of the nominations that have been put forth. Mike Luisi.

MR. MICHAEL LUISI: **I move to approve Roger Wooleyhan, Jr. and Charles Witek as members of the Coastal Shark Advisory Panel.**

CHAIRMAN NOWALSKY: Seconded by Steve Heins. **Discussion on the motion, any objection to the motion, seeing none; the motion stands approved.** Is there any other business to come before the board? I've got a hand up, Rob.

MR. O'REILLY: I just wanted to thank Karol and NMFS Staff for coming forward with the variable trip limit that they have for the large coastal sharks. I know that in the past, it is a lot better than being shut out, because of the way seasons go. I really appreciate their efforts, thank you.

CHAIRMAN NOWALSKY: I'll just take a moment to thank Ashton, staff and Karol, as well. Roy Miller will be taking over this board at the next board meeting. I'll also state that it's now on the Striped Bass Board to get done in time to get everybody on the boat.

ADJOURNMENT

Having completed all of the items on the agenda; we stand adjourned. Thank you all very much.

(Whereupon the meeting adjourned at 2:50 o'clock p.m. on October 24, 2016.)

NOAA Fisheries Announces the Final Rule for Amendment 5b to the 2006 Consolidated Highly Migratory Species Fishery Management Plan

Posted April 3, 2017

The National Marine Fisheries Service (NMFS) announces the final rule to implement Amendment 5b to the 2006 Consolidated Atlantic Highly Migratory Species (HMS) Fishery Management Plan (FMP). Amendment 5b implements a range of management measures to prevent overfishing and rebuild overfished dusky sharks. These measures are based on the 2016 dusky shark stock assessment update that determined dusky sharks are overfished and experiencing overfishing.

Who is affected?

Amendment 5b could affect:

- Any commercial fishermen with HMS permits.
- Any recreational fishermen who catch sharks of any species.
- Any dealers who buy or sell sharks or shark products.

What will it do?

The final rule, which will publish in the *Federal Register* on April 4, 2017, and related documents, including the Final Environmental Impact Statement (FEIS) may be found at: http://www.nmfs.noaa.gov/sfa/hms/documents/fmp/am5/a5b_index.html

The management measures implemented by this final rule (which were analyzed in the Amendment 5b FEIS) are listed in the table below. Amendment 5b is designed to meet the objective of ending overfishing and rebuilding the dusky sharks, building on measures adopted in 2008 as a dusky shark rebuilding plan. NMFS considered a full range of alternatives in the FEIS, which can be found in Chapter 2 of the FEIS. After considering comments on the proposed rule and DEIS, NMFS is implementing final measures, as follows:

- NMFS has added and preferred *Alternative A6d*, which would require the use of non-offset, non-stainless steel circle hooks by all HMS permit holders with a shark endorsement when fishing for sharks recreationally south of 41° 43' N latitude, except when fishing with flies or artificial lures. This alternative is preferred instead of Alternative 6a in the DEIS, which would have required the use of circle hooks by all HMS permit holders with a shark endorsement when fishing for sharks recreationally, defined as when deploying natural bait while using a wire or heavy (200 lb test or greater) monofilament or fluorocarbon leader;
- Preferred *Alternative B3* has been modified based on public comment to recognize safety concerns, specifying that fishermen with an Atlantic shark limited access permit with pelagic longline gear onboard must release all sharks not being retained using a dehooker or cutting the gangion less than three feet from the hook as safely as practicable.

| Recreational Measures | Final Management Measures |
|---|--|
| Permit Requirements and Outreach | <p><i>Alternative A2 – Effective January 1, 2018</i></p> <p>Require HMS permit holders fishing for sharks recreationally to obtain a shark endorsement, which requires completion of an online shark identification and fishing regulation training course, plus additional recreational fisheries outreach.</p> |
| Circle Hook Requirement | <p><i>Alternative A6d – Effective January 1, 2018</i></p> <p>Require the use of non-offset, non-stainless steel circle hooks by all HMS permit holders with a shark endorsement when fishing for sharks recreationally south of 41° 43' N latitude (near Chatham, Massachusetts - the northern extent of the dusky shark's U.S. Atlantic range), except when fishing with flies or artificial lures.</p> |
| <p>Reason for Changes: The circle hook final measure is a new alternative similar to the previously preferred <i>Alternative A6a</i> in the proposed rule and DEIS. <i>Alternative A6d</i> was formulated based in response to numerous comments received during the public comment period which indicated, as worded, that <i>Alternative A6a</i> would impact fishing for numerous non-shark species, including tunas, billfishes, dolphin, wahoo, bluefish, and others, where J-hooks are often used in conjunction with natural bait and wire/heavy leaders. The final alternative applies to all recreational fishing for sharks but exempts from the circle hook requirement recreational fishing in U.S. waters north of the dusky shark's range (41°43'N) as conservation and management measures are intended to manage the dusky shark stock throughout its range, but not beyond, and fishing with flies or artificial lures.</p> | |
| Commercial Measures | Preferred Alternatives in FEIS |
| Shark Release Protocol | <p><i>Alternative B3 – Effective June 5, 2017</i></p> <p>Fishermen with an Atlantic shark limited access permit with pelagic longline gear onboard must release all sharks not being retained using a dehooker or cutting the gangion less than three feet from the hook as safely as practicable.</p> |
| <p>Reason for Changes: The shark release protocol has been modified from that in the proposed rule based on comments received from commercial fishermen suggesting that requiring gangions to be cut less than three feet from the hook could result in safety issues. The modified language in <i>Alternative B3</i> acknowledges those safety concerns expressed and encourages vessels to comply with the requirement in as safe a manner as practicable.</p> | |
| Additional Training Requirements | <p><i>Alternative B5 – Effective June 5, 2017</i></p> <p>Require completion of a shark identification and fishing regulation training course as a new part of all Safe Handling and Release Workshops for HMS pelagic longline, bottom longline, and shark gillnet vessel owners and operators.</p> |
| Outreach and Fleet Communication Protocol | <p><i>Alternative B6 – Effective June 5, 2017</i></p> <p>Increase dusky shark outreach and awareness through development of additional outreach materials, and require</p> |

| | |
|-------------------------|--|
| | HMS pelagic longline, bottom longline, and shark gillnet vessels to abide by a dusky shark fleet communication and relocation protocol. |
| Circle Hook Requirement | <i>Alternative B9 – Effective January 1, 2018</i> Require the use of circle hooks by all HMS directed shark permit holders using bottom longline. |

The final management measures, consistent with recent stock assessment update, are summarized below and include:

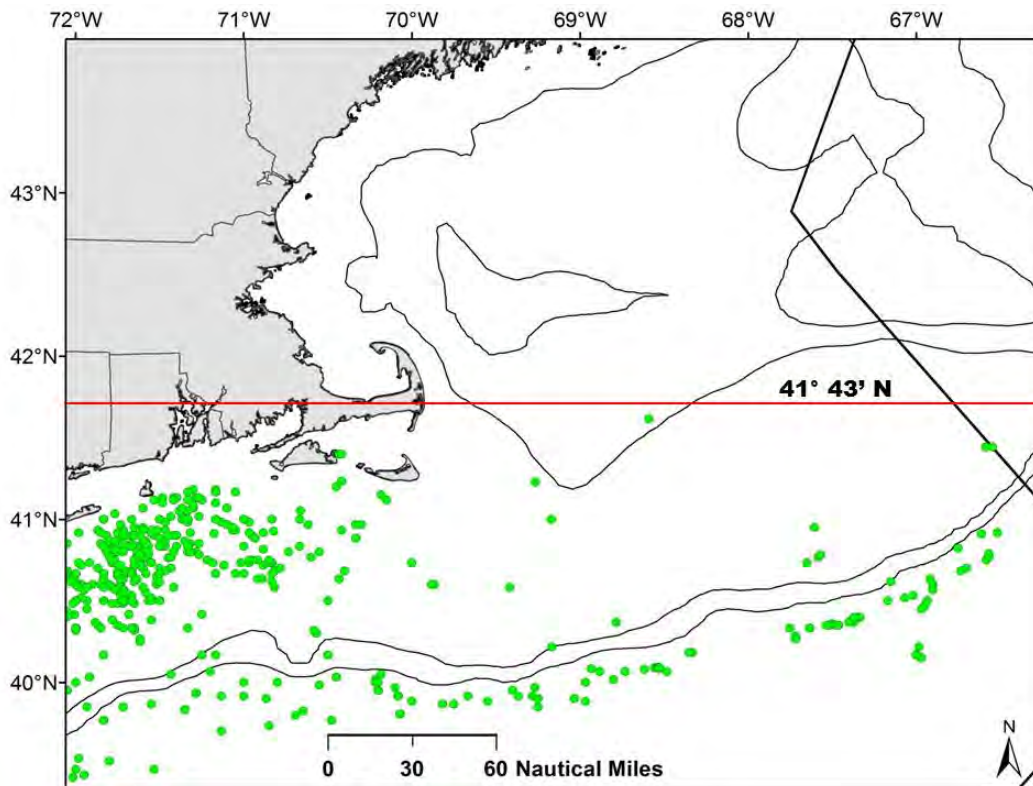


Figure 1. Chart of the northern extent of dusky shark distribution (points) and the regulatory line at 41° 43' N latitude, north of which HMS anglers would be exempt from the circle hook requirements included in Alternative A6d because it is outside the dusky shark’s U.S. Atlantic range. Data sources: NMFS Pelagic Observer Program, NMFS EFP database, NEFSC Observer Program, NEFSC Cooperative Shark Tagging Program.

This notice is a courtesy to Atlantic HMS fishery participants to help keep you informed about the fisheries. Official notice of Federal fishery actions is made through filing such notice with the Office of the Federal Register. For further information on this final rule and FEIS, contact Tobey Curtis at (978) 281-9273. Copies of the final rule and supporting documents are available upon request from the HMS Management Division at (301) 427-8503.



Atlantic States Marine Fisheries Commission

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**Coastal Sharks
Advisory Panel Conference Call
April 7, 2017
10:00 – 11:00 a.m.**

Advisory Panel Members: Lewis Gillingham (Chair), Katie Westfall, Mark Sampson, Peter Grimbilas, Charles Witek, Rusty Hudson

ASMFC: Ashton Harp, Roy Miller (Board Chair)

Public: Karyl Brewster-Geisz (NOAA Fisheries), Angel Wiley (MD DNR)

The Coastal Sharks Advisory Panel met via conference call on April 7, 2017 to discuss the final rule for Amendment 5b to the (federal) Highly Migratory Species Fishery Management Plan. New management measures are in response to a 2016 dusky shark stock assessment update that determined dusky sharks are overfished and experiencing overfishing. The commercial and recreational management measures (for HMS permit holders) aim to conserve dusky sharks.

The Federal Register commercial retention limit notification can be found at:

<https://www.federalregister.gov/d/2017-06591>

NOAA Fisheries HMS Summary:

http://www.nmfs.noaa.gov/sfa/hms/news/news_list/2017/4/a5b_finalrule_040317.html

The AP discussed two recreational measures (see below) that could be adopted in state waters, if requested by the Board at the May 2017 meeting (see below) and the affect it may have on state fishermen.

Amendment 5b Recreational Measures – Both will become effective on January 1, 2018.

- 1. Requires HMS permit holders fishing for sharks recreationally to obtain a shark endorsement, which requires completion of an online shark identification and fishing regulation training course, plus additional recreational fisheries outreach.*
- 2. Require the use of non-offset, non-stainless steel circle hooks by all HMS permit holders with a shark endorsement when fishing for sharks recreationally south of 41° 43' N latitude, except when fishing with flies or artificial lures.*

AP Discussion

1. *Shark Endorsement via an Online Training Course*

NOAA Fisheries clarified that the training course will include a video and questions, but would likely take less than five minutes to complete. It is not pass/fail. It will focus on the basic structure of a shark and how to identify a ridgeback shark (which includes dusky sharks).

Overall the members on the call welcomed shark education opportunities for fishermen. They noted that there is a lot of shark misidentification by recreational fishermen. In some cases, this has deterred anglers from shark fishing in general, in other cases it has led to the mortality of prohibited sharks.

There was opposition to this leading to a separate permit. Multiple participants preferred states consider the following:

- States should require recreational shark anglers, including those participating in tournaments, to take the 5 minute online quiz and video that is being developed by NOAA Fisheries.
 - o Potential Action: This could be included in the ASMFC Coastal Sharks FMP (which would require an addendum) or a mandate put forward by each state
 - o Potential Action: States will develop regulatory language and socialize this mandate with shark anglers
 - o States could ask fishermen to take the quiz when applying for the state saltwater fishing license or an angler could take it mid-year. HMS may modify the quiz annually.
- After an angler completes the quiz, a unique number should be shown on the screen. Anglers will be required to write this number on their state fishing license and show law enforcement upon request.
 - o Potential Action: Commission should work with HMS to have the quiz create a unique number at the end of the quiz; however this is currently not in the scope of work for the online contractor
 - o Potential Action: Ask for law enforcement feedback on enforceability
- The NOAA HMS permit and shark endorsement is vessel based and their quiz is focused on fishing from vessels, but there is a need for the states to take the lead on developing best practices when releasing a shark from the beach, piers or jetties.
 - o Potential Action: On each state website, a shark angler webpage could be developed that would include shore-based best practices for releasing sharks (video or text) and include a link to the HMS video.
 - For example: sharks should be released in the surf, not dragged onto the sand; sharks caught on piers should be released with no more than 3 feet of line.
 - o The outreach material should focus on the positives of having shark education, rather stating it as a mere requirement.

One participant wants the online quiz to be strongly recommended but not required.

2. Non-offset, Non-stainless Steel Circle Hook Requirement below Chatham, MA

There was a lot of discussion about the enforceability of this measure. Concerns included:

- Fishermen that incidentally catch sharks will likely not be aware of this requirement
- It could lead to discarding because anglers not using the correct hook will be prohibited from retaining any sharks
- Enforcement officers are not likely to intercept anglers at the time of harvest, therefore officers will have to take the anglers word that a circle hook was used if intercepted with a shark at the dock.
- Federal anglers are more likely to target sharks and be aware of the regulations involved with shark fishing, whereas state anglers are not as knowledgeable. There will likely be push back if this measure is implemented.
- Shark misidentification is a bigger issue (e.g., issue 1) than using a specific hook.
- Request for LEC feedback on this measure.

DEPARTMENT OF COMMERCE**National Oceanic and Atmospheric Administration****15 CFR Part 902****50 CFR Part 635**

[Docket No. 130417378–7331–02]

RIN 0648–BD22

Atlantic Highly Migratory Species; Atlantic Shark Management Measures; Final Amendment 5b

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Final rule.

SUMMARY: NMFS is amending the 2006 Consolidated Atlantic Highly Migratory Species (HMS) Fishery Management Plan (FMP) based on the results of the 2016 stock assessment update for Atlantic dusky sharks. Based on this assessment, NMFS determined that the dusky shark stock remains overfished and is experiencing overfishing. Consistent with the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), NMFS is implementing management measures that will reduce fishing mortality on dusky sharks to end overfishing and rebuild the dusky shark population consistent with legal requirements. The final measures could affect HMS-permitted commercial and recreational fishermen who harvest sharks or whose fishing vessels interact with sharks in the Atlantic Ocean, including the Gulf of Mexico and Caribbean Sea.

DATES: This final rule is effective on June 5, 2017, except for the amendments to § 635.4 (b), (c), and (j); § 635.19 (d); § 635.21(d)(4), (f), and (k); § 635.22 (c); § 635.71 (d)(21), (d)(22), (d)(23), and (d)(26), which will be effective on January 1, 2018.

ADDRESSES: Copies of the Final Amendment 5b to the 2006 Consolidated HMS FMP, including the Final Environmental Impact Statement (FEIS) containing a list of references used in this document, the dusky shark stock assessments, and other documents relevant to this rule are available from the HMS Management Division Web site at <http://www.nmfs.noaa.gov/sfa/hms/>.

Written comments regarding the burden-hour estimates or other aspects of the collection-of-information requirements contained in this final rule may be submitted to the HMS Management Division and by email to

OIRA_Submission@omb.eop.gov, or fax to (202) 395–7285.

FOR FURTHER INFORMATION CONTACT: Tobey Curtis at 978–281–9273 or Karyl Brewster-Geisz at 301–427–8503.

SUPPLEMENTARY INFORMATION: The Atlantic shark fisheries are managed primarily under the authority of the Magnuson-Stevens Act. The authority to issue regulations under the Magnuson-Stevens Act has been delegated from the Secretary to the Assistant Administrator for Fisheries, NOAA (AA). On May 28, 1999, NMFS published in the **Federal Register** (64 FR 29090) final regulations, effective July 1, 1999, implementing the FMP for Atlantic Tunas, Swordfish, and Sharks (1999 FMP). On October 2, 2006, NMFS published in the **Federal Register** (71 FR 58058) final regulations, effective November 1, 2006, implementing the 2006 Consolidated HMS FMP, which consolidated the 1999 FMP management measures and other regulatory requirements, and details the management measures for Atlantic HMS fisheries, including the Atlantic shark fisheries. The 2006 Consolidated HMS FMP and its amendments are implemented by regulations at 50 CFR part 635.

Background

A brief summary of the background of this final action is provided below. Complete details of what was proposed and the alternatives considered are described in Final Environmental Impact Statement (FEIS) for Amendment 5b to the 2006 Consolidated HMS FMP and the proposed rule for Amendment 5b (81 FR 71672, October 18, 2016). Those documents are referenced in this preamble and their full description of management and conservation measures considered are not repeated here. Additional information regarding Atlantic HMS management can be found in the FEIS for Amendment 5b to the 2006 Consolidated HMS FMP, the 2006 Consolidated HMS FMP and its amendments, the annual HMS Stock Assessment and Fishery Evaluation (SAFE) Reports, and online at <http://www.nmfs.noaa.gov/sfa/hms/>. The comments received on Draft Amendment 5b and the proposed rule and our responses to those comments are summarized below in the section labeled “Response to Comments.”

On October 7, 2011 (76 FR 62331), NMFS made the determination that dusky sharks continued to be overfished and were experiencing overfishing. Initially, NMFS proposed to implement management measures through Amendment 5 to the 2006 Atlantic

Consolidated HMS FMP, however, NMFS received substantial public comment disputing the basis for the proposed Amendment 5 dusky shark measures and suggesting significantly different measures be analyzed within the range of alternatives. Thus, NMFS decided further analysis was necessary and that dusky shark measures would be considered in a separate FMP amendment, EIS, and proposed rule, labeled “Amendment 5b.”

NMFS prepared a Predraft for Amendment 5b in March 2014 that considered the feedback received on Draft Amendment 5. NMFS solicited additional public input and consulted with its Advisory Panel on the Predraft at the Spring 2014 Advisory Panel meeting. In response to two petitions from environmental groups regarding listing dusky sharks under the Endangered Species Act (ESA), NMFS simultaneously was conducting an ESA Status Review for the Northwest Atlantic population of dusky sharks which was completed in October 2014. That status review concluded that, based on the most recent stock assessment as well as abundance projections, updated analyses, and the potential threats and risks to population extinction, the dusky shark population in the Northwest Atlantic and Gulf of Mexico has a low risk of extinction currently and in the foreseeable future, and relative abundance generally appeared to be increasing across the examined time series. On December 16, 2014, NMFS announced a 12-month finding that determined that the Northwest Atlantic and Gulf of Mexico population of dusky sharks did not warrant listing under the ESA (79 FR 74954).

In light of this updated information, including indications of abundance increases, NMFS prioritized an update of the SouthEast Data, Assessment and Review (SEDAR) 21 dusky shark stock assessment using data through 2015, to be completed in summer 2016. It was determined that further action on Amendment 5b should wait until after the completion of the 2016 assessment update to ensure that it was based on the best available scientific information.

On October 27, 2015, the environmental advocacy organization Oceana filed a complaint against NMFS in Federal district court alleging violations of the Magnuson-Stevens Act and Administrative Procedure Act with respect to the timing of NMFS’s action to rebuild and end overfishing of dusky sharks. A settlement agreement was reached in *Oceana v. Pritzker* (Case No. 1:15-cv-01824–CRC) (D.D.C.), between NMFS and the Plaintiffs on May 18,

2016, regarding the timing of the pending agency action. This settlement acknowledged that NMFS was in the process of developing an action to address overfishing and rebuild dusky sharks and that an assessment update was ongoing and stipulated that, based upon the results of the assessment update, NMFS would submit a proposed rule to the **Federal Register** no later than October 14, 2016, and a final rule by March 31, 2017.

In August 2016, the update to the SEDAR 21 dusky shark stock assessment was completed, and on October 4, 2016 (81 FR 69043), NMFS made the stock status determination that dusky sharks are still overfished and still experiencing overfishing, although the level of overfishing is not high. Based on the 2016 assessment update, as well as the rationale summarized below and fully described in the preamble of the Proposed Rule (81 FR 71672, October 18, 2016) and in Section 1.2 of the Amendment 5b FEIS (see **ADDRESSES**), NMFS determined that it needs to reduce dusky shark fishing mortality by approximately 35 percent relative to 2015 levels to rebuild the stock by the year 2107. According to the outcomes of five model runs, Spawning Stock Fecundity (SSF) relative to SSF_{MSY} (proxy biomass target) ranged from 0.41 to 0.64 (*i.e.*, overfished) (median = 0.53). The fishing mortality rate (F) in 2015 relative to F_{MSY} was estimated to be 1.08–2.92 (median = 1.18) (values >1 indicate overfishing). The updated projections estimated that the target rebuilding years range from 2084–2204, with a median of 2107. In order to achieve rebuilding by 2107 with a 50% probability, the final models projected that F on the stock would have to be reduced 24–80% (median = 35%) from 2015 levels. While NMFS typically uses a 70-percent probability of rebuilding by the deadline for Atlantic highly migratory shark species, the 2016 update has a higher level of uncertainty than other shark assessments and presents a more pessimistic view of stock status than was expected based on review of all available information (as detailed in the proposed rule and Section 1.2 of the FEIS). Thus, for the purposes of this Amendment, management measures were developed that would achieve the mortality reductions associated with the median assessment model run and a 50-percent probability of rebuilding by the deadline (*i.e.*, 35-percent mortality reduction). A detailed discussion of the stock assessment can be found in the Amendment 5b FEIS (see **ADDRESSES**) and the final SEDAR 21 stock

assessment update report, available on the SEDAR Web site (<http://sedarweb.org/sedar-21>).

The proposed rule for Amendment 5b to the 2006 Consolidated HMS FMP and the Notice of Availability of the DEIS for Amendment 5b published in the **Federal Register** on October 18, 2016 (81 FR 71672) and October 21, 2016 (81 FR 72803), respectively.

Draft Amendment 5b included management measures that would reduce dusky shark mortality in the recreational shark, commercial pelagic longline, bottom longline, and shark gillnet fisheries. Draft Amendment 5b also clarified annual catch limits (ACLs) and accountability measures (AMs) for the prohibited shark complex, including dusky sharks. Detailed descriptions of the proposed management measures and ACL and AM clarifications are available in the Amendment 5b DEIS and proposed rule. The public comment period ended on December 22, 2016.

This final rule implements the measures preferred and analyzed in the FEIS for Amendment 5b to the 2006 Consolidated HMS FMP in order to end overfishing and rebuild dusky sharks. The FEIS analyzed the direct, indirect, and cumulative impacts on the quality of the human environment as a result of the preferred management measures. The FEIS, including the preferred management measures, was made available on February 24, 2017 (82 FR 11574). On March 28, 2017, the Assistant Administrator for NOAA signed a Record of Decision (ROD) adopting these measures as Final Amendment 5b to the 2006 Consolidated HMS FMP. A copy of the FEIS, including Final Amendment 5b to the 2006 Consolidated HMS FMP, is available from the HMS Management Division (see **ADDRESSES**). In brief, the final management measures implemented in this rule are: Shark endorsement and circle hook requirements in the recreational Atlantic shark fisheries; shark release protocols in the pelagic longline fishery; dusky shark identification and safe handling training in the HMS pelagic longline, bottom longline, and shark gillnet fisheries; outreach and fleet communication protocol in the HMS pelagic longline, bottom longline, and shark gillnet fisheries; and, a circle hook requirement in the directed shark bottom longline fishery. Additionally, Amendment 5b clarifies ACLs and AMs for the prohibited shark complex, including dusky sharks. As described in the Responses to Comments below, NMFS made several changes to the preferred alternatives between the proposed and final rule, based in part

on public comments. The specific changes are described below in the section titled “Changes from the Proposed Rule.”

Response to Comments

We received a total of 76 individual written comments on the proposed rule from fishermen, states, and other interested parties during the public comment period, including one comment from EarthJustice that included signatures from 19,716 individuals and another comment from Oceana that included signatures from 13,144 individuals. We also received comments from fishermen, states, and other interested parties during six public hearings, five regional fishery management council meetings, one Atlantic States Marine Fisheries Commission meeting, and one HMS Advisory Panel meeting. All written comments can be found at <http://www.regulations.gov/>.

A. Miscellaneous Comments

Comment 1: NMFS received a wide range of comments expressing general support for the proposed conservation and management measures. Commenters’ support was based upon their concerns about the current status of the dusky shark stock and the need to end overfishing and conserve the species in combination with their understanding that the proposed measures would have minimal negative impacts on the recreational and commercial fisheries. Some commenters agreed that the measures would end overfishing and rebuild the stock within the rebuilding timeframe. Most commenters supported the establishment of a shark endorsement requirement for HMS permit holders fishing for sharks recreationally, and shark identification and regulations course for commercial permit holders (HMS pelagic longline, bottom longline, and shark gillnet) as a requirement to target, land, and retain sharks in Federal waters. Many commenters generally supported requiring the use of circle hooks in the recreational and bottom longline fisheries although there were many comments requesting modifications to the wording and implementation of the alternatives, as discussed in more detailed comment responses below.

Commercial fishermen and other groups expressed general support for the commercial alternatives, including the establishment of a dusky shark avoidance and relocation protocol, requiring the use of dehookers or cutting the line within three feet of the shark to release them, and adding a shark

identification section to the protected species and safe handling workshop required of commercial fishermen. The Environmental Protection Agency (EPA) rated the DEIS as “lack of objections,” per its EIS rating criteria, and noted its support for the overall efforts by NMFS to further protect dusky sharks.

Response: As detailed in Chapter 4’s environmental effects analyses, NMFS agrees that the Amendment 5b measures will reduce fishing mortality below the level needed to end overfishing and rebuild the dusky shark stock consistent with the SEDAR 21 dusky shark stock assessment update and the Magnuson-Stevens Act, while minimizing effects on the commercial and recreational fisheries.

Comment 2: Some commenters stated that additional regulations to protect dusky sharks were not warranted as their retention is already prohibited. These commenters felt NMFS should instead focus on the enforcement of existing regulations prohibiting the harvest of dusky sharks, and that additional regulations on the fishery would result in reduced compliance. The State of Mississippi opposed the measures to protect dusky sharks because it felt the measures could interfere with the fisheries for other, healthy stocks of sharks.

Response: Although a prohibition on retention at times provides adequate protection for species that are experiencing overfishing, the latest dusky shark stock assessment update shows that dusky sharks are still experiencing overfishing despite their prohibited status. A detailed description of the dusky shark stock assessment update results is available in Chapter 1 of the FEIS. Because dusky sharks are still overfished and experiencing overfishing, the Magnuson-Stevens Act requires NMFS to implement management measures to stop overfishing and rebuild the stock.

Comment 3: Commenters stated that additional management measures to conserve dusky sharks should be implemented in all fisheries that interact with dusky sharks, and not just the HMS fisheries that do so. Fisheries not covered under Amendment 5b that were identified by various commenters as interacting with dusky sharks included state water recreational and commercial fisheries, the Gulf of Mexico reef fish bottom longline fishery, the South Atlantic snapper-grouper bottom longline fishery, and the South Atlantic dolphin/wahoo fishery.

Response: Based on the best scientific information available, the majority of dusky shark interactions occur in commercial and recreational HMS

fisheries, as described in Section 1.2 of the FEIS. Specifically, the available observer data for the Southeast dolphin/wahoo, reef fish, and snapper-grouper longline fisheries indicate that dusky shark bycatch is rare, averaging only a few observed mortalities per year. The commenters rely heavily on the extrapolated estimates of the first National Bycatch Report, 1st Edition Update 1 (2011), but as detailed in Chapter 1 of the FEIS and the response to Comment 13, NMFS generally does not rely on that Report for management purposes. Further, NMFS has determined that these estimates are inappropriate for use in developing conservation and management measures for this specific stock. These bycatch estimates were not accepted for use in the SEDAR 21 stock assessment and update by the data workshop working group, further highlighting their inadequacy for HMS management purposes. Dusky shark mortality does occur in state waters. However, NMFS does not manage the state water fisheries; as described in the FEIS and Appendix II, NMFS will coordinate with the states and the Atlantic States Marine Fisheries Commission on the measures implemented by this action. If the states also adopt measures commensurate with those included in Amendment 5b, as they often do with HMS actions, it will increase the mortality reduction benefits for dusky sharks. However, the measures in Amendment 5b, building on the existing Federal conservation and management measures, are sufficient to meet the Magnuson-Stevens Act requirements in the absence of state and/or Atlantic State Marine Fisheries Commission (ASMFC) action. The conservation and management measures that are components of the rebuilding plan are still in effect and include: A continued prohibition on retention of dusky sharks (§§ 635.22(c)(4) and 635.24(a)(5)), time/area closures (§ 635.21(d)), and the prohibition of landing sandbar sharks (the historic target species for the large coastal shark fishery and responsible for a significant portion of dusky interactions) outside of a limited shark research fishery, along with significant large coastal shark (LCS) retention limit reductions in the bottom longline fishery where interactions were commonly occurring (§§ 635.24(a)(1), (2), and (3)). The measures in Amendment 5b will build upon these existing rebuilding plan elements.

Comment 4: The EPA and some commenters expressed their concern that the proposed measures only appear to reduce mortalities as opposed to

reducing interactions. They found this particularly concerning in the commercial longline fisheries where they suggest that many dusky sharks are already dead upon haulback (*i.e.*, high at-vessel mortality). One commenter stated that sharks caught on longline gear that are still alive at haulback face significant post-release mortality. Some commenters felt NMFS should further consider alternatives that prohibit fishing during the areas/times that dusky sharks are most vulnerable to capture, reduce overall effort, or require the use of more selective fishing gear. Some commenters stated that the non-preferred alternative to implement hot spot closures is the only effective way to reduce dusky shark mortality. Some commenters advocated for the alternative that would impose a bycatch cap on the fisheries that interact with dusky sharks in hotspot areas. These commenters said that once a bycatch cap is reached, that should trigger hotspot closures in areas where dusky shark bycatch is known to be high for the corresponding fishery. Some commenters stated that the hotspot closure measures were the only alternatives that provided a quantifiable and objective reduction in dusky mortality.

Response: NMFS agrees that there is evidence that dusky sharks experience high at-vessel and post-release mortality rates in some fisheries, including the longline fisheries. That is why the approach taken in Amendment 5b to reduce dusky shark mortality relies, in part, on bycatch reduction (Alternative B6), gear modifications (Alternatives A6d, B9), safe release requirements (Alternative B3), and education and training on handling techniques (Alternatives A2, B5, B6) to reduce at-vessel and post-release mortality rates. NMFS analyzed a series of bycatch “hotspot” time/area closures in Alternative B4, but these alternatives were not preferred because similar or greater reductions could be achieved with other measures that would have fewer negative socioeconomic impacts. Additionally, the hotspot closure analyses only quantified the mortality reductions that could be achieved within the pelagic longline fishery (only one source of mortality), not across the whole stock. NMFS analyzed alternatives that would reduce fishing effort by making the recreational shark fishery catch-and-release only (Alternative A7), limiting the number of hooks on pelagic longline sets (Alternative B2), and entirely closing the pelagic longline fishery (Alternative B8). The analyses in Chapter 4 of the

FEIS support the determination that the Amendment 5b measures will achieve the necessary mortality reductions without the negative socioeconomic impacts associated with the hotspot closure and bycatch cap alternatives.

Comment 5: One commenter stated that the overarching goal of Amendment 5b should be to effectively “count, cap, and control” dusky mortality in all fisheries that interact with the species.

Response: NMFS disagrees that this general management approach would be feasible or necessary in Amendment 5b. The objectives of Amendment 5b are to end overfishing and rebuild dusky sharks, which must be achieved through reductions in mortality. A “count, cap, and control” approach is used in a number of other fisheries, and can reduce mortality in cases where appropriate bases exist to specify and monitor catch limits that are correlated with fishing mortality rates, but there are numerous other acceptable ways to reduce fishing mortality. In the case of the dusky shark, there are insufficient data to count or cap catches. Measures were taken in Amendment 2 to significantly reduce interactions with dusky sharks by, for example, severely reducing allowable catch in the bottom longline fishery for sandbar sharks (the primary source of dusky bycatch), and the dusky shark fishery remains closed by designating the species as a prohibited shark species and setting the catch limit at zero. These measures continue to be in effect. The same commenter acknowledges this fact, stating “[i]n order to reduce bycatch, the Service must first determine how much bycatch is occurring, when, and where,” and “[t]he Fisheries Service cannot enforce bycatch caps if the amount of bycatch is unknown.” NMFS agrees with these statements, which highlight the impracticality of the proposed “count, cap, and control” management approach in the absence of the fundamentally necessary bycatch data. As described in Section 1.2 of the FEIS and in the stock assessment update, total catch data do not exist, thus the SEDAR21 assessment update used a catch-free modeling approach, and the total allowable catch (TAC) estimates provided by the 2016 stock assessment update were not recommended as valid for use in management. For the above reasons, there is no rational basis in this situation for establishing an appropriate cap for dusky shark catches in any individual fishery or across fisheries that interact with them, or to know what level of catch would effectively and appropriately constrain fishing mortality. Consequently, the amended rebuilding plan does not contain

measures that would rely upon absolute catch or discard estimates, such as a quota or sector ACLs. Instead, the measures in Amendment 5b focus on reducing the rates and relative levels of mortality. The measures in this action will achieve the necessary mortality reductions through other means, including bycatch reduction, safe release requirements, gear modifications and training that reduce at-vessel and post-release mortality rates, and outreach and education to improve compliance rates and data collection, in addition to the measures adopted in the 2008 rebuilding plan. Additionally, with improved species identification training, data collection on recreational dusky shark catches should improve by reducing the occurrence of “unidentified” sharks in catch reports and surveys and increasing confidence in the reported catch of dusky sharks. As data collection improves, catch-based assessments and management measures may become feasible in the future.

Comment 6: NMFS should establish bycatch caps between fishery sectors within the Consolidated HMS FMP, as well as between non-HMS FMPs as a “preferred alternative” in the final Amendment 5b. At a minimum, NMFS should coordinate bycatch caps among the HMS fisheries, Gulf of Mexico reef fish bottom longline fishery, and South Atlantic snapper-grouper bottom longline fishery, as well as other fisheries responsible for dusky shark bycatch and mortality.

Response: NMFS disagrees that bycatch caps are appropriate for further limiting dusky shark mortality. Under Alternatives Considered but Not Further Analyzed in Chapter 2 of the FEIS, NMFS includes a detailed explanation of why bycatch caps, while helpful for some species, are not appropriate for the current situation with the available data for dusky sharks. The response to Comment 5 also addresses scientific concerns related to establishing dusky shark bycatch caps.

Comment 7: The EPA noted that the 2014 Northwest Atlantic Dusky Shark Status Review Report identified hook time, correlated with soak time, as a significant factor in predicting at vessel dusky shark mortality. As such, the EPA recommended that NMFS consider providing more detail in the FEIS concerning the appropriateness of addressing hook soak time as a means of reducing dusky shark mortality in the longline fisheries.

Response: NMFS agrees that there is considerable scientific information indicating that shorter hook soak times on bottom longlines are correlated with

reduced at-vessel and post-release mortality rates on many shark species, including dusky sharks. However, as described in Section 2.3 of the FEIS (Alternatives Considered but Not Further Analyzed), an alternative that would limit soak time is not considered to be reasonable at this time because of safety, enforcement, and safe-handling concerns. During the public comment period of the Amendment 5b Predraft, NMFS heard comment from industry that limiting soak time could rush fishing operations, particularly on sets with high numbers of large fish. In these instances, the crew may need to rush to meet soak time restrictions, compromising safety at sea and possibly rushing through protected resource safe handling requirements. From an enforcement perspective, concerns were raised about effectively monitoring such a measure fleetwide absent high levels of observer coverage and more general concerns were noted about the enforceability of soak times.

Comment 8: NMFS received a wide range of comments regarding the need for a quantitative analysis explaining how the proposed measures would achieve the 35-percent reduction in dusky shark mortality. EPA and other commenters noted that it was difficult from the analyses in the DEIS to clearly evaluate the effectiveness of the different alternatives as contributing to the necessary mortality reduction. As such, the EPA recommended providing additional information in the FEIS to help quantify the impacts of the alternatives and facilitate comparisons of alternatives. Another commenter questioned whether the qualitative analyses of the proposed alternatives meet the standards required by NEPA. Several commenters called upon NMFS to conduct a more quantitative analysis of the proposed alternatives in the FEIS to demonstrate how they would achieve the targeted 35-percent reduction in mortality.

Response: NMFS has been responsive to these comments in the FEIS, which includes more quantitative analysis of the expected impacts of the alternatives, to the extent possible using the best available scientific information. However, as described in Chapter 4 of the FEIS, it is not possible to specifically quantify the projected effect of most of the preferred alternatives on the overall dusky shark population because total catch and population size are unknown. The alternatives in the FEIS include more quantitative discussion than the DEIS included for the expected effects on mortality rates of individual sharks caught within the affected fisheries, but qualitative

inferences are still necessary due to the lack of data. Qualitative analyses are acceptable within NEPA analyses when quantitative resources are lacking. Therefore, while it is not possible to calculate the precise mortality reduction of the alternatives, individually or cumulatively, NMFS has determined that the best available scientific information indicates that the measures in Amendment 5b will end overfishing and rebuild the dusky shark stock as required.

Comment 9: Two commenters suggested that NMFS had not fully analyzed a reasonable range of alternatives to end overfishing and rebuild the dusky shark stock consistent with NEPA requirements. These commenters stated that bycatch caps are within the reasonable range of alternatives and are one of the few measures that can objectively reduce dusky shark mortality. The commenters believe that by not analyzing bycatch caps, NMFS has not analyzed a full range of alternatives. These commenters also stated that to comply with NEPA requirements, a range of alternatives considering ACLs other than zero and additional AMs should be analyzed. Furthermore, it was stated that to comply with NEPA, a range of alternatives analyzing the impacts of using different probabilities of achieving rebuilding success (*i.e.*, 50 percent, 70 percent, or 90 percent probability) should have been developed.

Response: The alternatives analyzed in Amendment 5b represent the reasonable range of alternatives, consistent with the purpose, need, and objectives of the rulemaking, as required by NEPA. Although some commenters have identified measures that they believe would better meet the objectives of Amendment 5b, not all of them are reasonable. Bycatch caps were not considered a reasonable alternative, as detailed in the Alternatives Considered but Not Further Analyzed section in Chapter 2 of the FEIS. See also responses to Comments 5 and 6.

Regarding the probability of rebuilding, NMFS made a scientifically-based determination about the appropriate level of risk, given the circumstances here. As discussed in Section 1.2 of the FEIS, NMFS has explained the scientific justification for using the 50 percent probability and explained why 70 percent was not feasible due to poor data, uncertainty, and other concerns. The determination of which probability to use was not based on ecological, social, or economic impacts; rather, it was based on the stock assessment output estimates, overfishing risk tolerance, and the level

of confidence in the output. A more detailed explanation of NMFS' determinations regarding the probability of rebuilding is available in the response to Comment 25.

Comment 10: One commenter stated that Amendment 5b is inconsistent with National Standard 9 because the action does not provide a means to quantify dusky bycatch.

Response: National Standard 9 of the Magnuson-Stevens Act states that “[c]onservation and management measures shall, to the extent practicable: (1) Minimize bycatch; and (2) To the extent bycatch cannot be avoided, minimize the mortality of such bycatch.” Consistent with this national standard, over the years, NMFS has implemented conservation and management measures to minimize bycatch and bycatch mortality of dusky sharks. See Chapter 1 of the FEIS. The Amendment 5b measures build upon those bycatch measures, as they are specifically designed to reduce at-vessel and post-release mortality rates of dusky sharks. In addition, the education and outreach measures will improve species identification and accurate reporting of catches of dusky sharks and other prohibited species. For an explanation of bycatch reporting methodologies for HMS fisheries, see Chapter 3 of the FEIS.

Comment 11: One commenter stated that state water fishermen are interacting with dusky sharks during certain times of the year and that those fishermen often misidentify shark species. The commenter stated that dealers that purchase the sharks typically take the fisherman's word on species identification.

Response: An important part of Amendment 5b's outreach effort to rebuild dusky sharks is working with the ASMFC and the Atlantic states to encourage them to reduce dusky shark mortality and implement measures that complement NMFS' effort within their jurisdictions. All shark dealers in Atlantic states (Maine through Florida) are required to obtain a Federal shark dealer permit, per the ASMFC Interstate FMP for Coastal Sharks, and must attend a shark identification workshop as a condition of their permit. Other members of the public, including state dealers in the Gulf of Mexico can attend these workshops and states have the option to set up their own workshops for state dealers to attend. Any Atlantic shark dealers misreporting shark species identification will continue to be referred for enforcement action as appropriate.

Comment 12: Some commenters, including the EPA, suggested that

NMFS consider extending the requirement to use dehookers or to cut the leader close to the hook to recreational shark anglers as well.

Response: This final rule requires that commercial fishermen release all sharks that are not being boarded or retained by using a dehooker, or by cutting the gangion no more than three feet from the hook as safely as practicable. NMFS does not extend the same requirement to the recreational fishery. NMFS already requires recreational anglers to release sharks in a manner that maximizes the chance of survival, and many anglers do so by using dehookers or by cutting leaders close to the hook. At-vessel and post-release mortality of dusky sharks in recreational fisheries already appears to be low according to the available recreational data in the FEIS (Section 1.2). Thus, NMFS will continue to maintain the requirement as written in the recreational fisheries without specifying the required method of release, because the requirement is already effectively implemented.

Comment 13: One commenter stated that Amendment 5b is not consistent with National Standard 2 because the action does not use the best available science. This commenter contends that, although highly uncertain, the TAC provided in the 2016 dusky shark stock assessment update is the best available science and should be used to provide a cap on fishing mortality. Furthermore, this commenter stated that the dusky shark bycatch estimates in the National Bycatch Report are the best available science and should be used, consistent with National Standard 2.

Response: Amendment 5b is consistent with National Standard 2 and uses the best available science, including the 2016 SEDAR 21 stock assessment update for dusky sharks. It also relies on scientific advice regarding the value or advisability of using certain data as the basis for management measures. While certain data were deemed not reliable enough to form the basis of management measures, the development of the conservation and management measures and impact analyses drew heavily from several up-to-date data sources, including logbooks, observer reports, fishery-independent surveys, Marine Recreational Information Program (MRIP) estimates, and recent scientific research. Results from the stock assessment update and the other data sources represent the best available science. In acceptance of the 2016 stock assessment update as the best available science, NMFS has also accepted its recommendation to *not* use the calculated TACs, as described in

Section 1.2 of the FEIS and stock assessment update report. While the commenter recommended that we use “the TAC” in the stock assessment, the final 2016 stock assessment update had five different TAC estimates ranging from 7,117 to 47,400 lb (3.2 to 21.5 mt) dressed weight (median = 27,346 lb (12.4 mt) dressed weight), and NMFS has no scientific basis to select one TAC over another, and none of them are considered acceptable for management purposes.

Because the stock assessment uses a catch-free model, it does not calculate projected levels of catch. Therefore, these estimates were not recommended for use in management according to the stock assessment documents. Specifically, the preliminary 2016 stock assessment update report stated that, “[w]e also provided an estimate of the total weight of removals associated with different reductions in total F, but caution that these are estimates only, and subject to considerable uncertainty.” Additionally, the final 2016 stock assessment update recommended that “projections based on catch-based removals should not be considered.” Therefore, NMFS accepts the recommendations of the stock assessment update, and will not use those TAC estimates as a basis for any management measures.

As detailed in Section 1.2 of the FEIS, the values estimated in the National Bycatch Report, 1st Edition Update 1 for 2006–2010, used a methodology that tended to overestimate dusky shark bycatch in these non-HMS fisheries, which was corrected in the subsequent National Bycatch Report update for 2011–2013 (Table 1.6). Specifically, because there were so few observed dusky shark interactions in the reef fish and snapper-grouper BLL fisheries (as supported by Table 1.5), the National Bycatch Report (1st Edition Update 1) initially used dusky shark catch-per-unit-effort (CPUE) from the shark BLL fishery observer program, including the shark research fishery data, and expanded that catch rate to the total effort in the BLL fisheries for reef fish and snapper-grouper. BLL sets for sharks and reef fish/snapper-grouper are different (different gear configurations, soak times, etc.) and are not directly comparable. Additionally, because sets for both sharks and reef fish/snapper-grouper can occur on the same trip, estimates that treated these fisheries completely separately would have resulted in double counting of some sharks. The shark research fishery trips target sandbar sharks and have a comparatively high interaction frequency with dusky sharks, which

resulted in artificially inflated values for dusky shark bycatch in the non-HMS BLL fisheries. Similar artificially inflated estimates were made in the vertical line and troll fisheries, where observed dusky shark interactions are near zero. Therefore, the dusky shark estimates provided in the National Bycatch Report, 1st Edition Update 1 (using 2006–2010 data) are considered invalid for use in management. The methodology used to estimate dusky shark bycatch in the National Bycatch Report, 1st Edition Update 1 was not used in the subsequent National Bycatch Report updates due to these issues. Additionally, these extrapolated catch estimates were not accepted for use in the SEDAR 21 stock assessment and update, which used catch-free models, further supporting NMFS’ determination that these estimates are not acceptable for use in management.

Comment 14: The EPA submitted a comment recommending additional environmental justice information in the EIS. Specifically, the EPA recommended that NMFS include the evaluation of environmental justice populations within the geographic scope of the projects. The EPA recommended that NMFS substantiate and include in the EIS whether the proposed alternatives have any potential for disproportionate adverse impacts to minority and low-income populations. The EPA also recommended that the EIS include the approaches used to foster public participation by these populations and describe outreach conducted to all other communities that could be affected by the project, because rural communities may be among the most vulnerable to health risks associated with the project.

Response: NMFS appreciates these recommendations from the EPA and has added additional information in the environmental justice discussion in Section 9.4 of the FEIS.

Comment 15: The EPA recommended providing summaries of any studies or other scientifically-supportable information that supports the assumption that recreational and commercial shark identification training will reduce dusky shark mortality through decreased misidentification and increased understanding of regulations.

Response: The Alternative A2 ecological impacts section of Chapter 4 of the FEIS details how species identification outreach can reduce mortality of elasmobranchs. Research on other U.S. Atlantic prohibited elasmobranch species has demonstrated that focused outreach and species identification training can improve compliance rates with prohibited species regulations to over 98 percent,

including reducing illegal landings by 95 percent (Curtis and Sosebee 2016). Additionally, angler education programs that train recreational fishermen in safe fishing, handling, and release techniques result in reduced post-release mortality rates (Poisson et al. 2016).

Comment 16: The EPA submitted a comment questioning the effectiveness of dusky shark species identification training, specifically with respect to Galapagos sharks. Galapagos sharks are very difficult to differentiate from dusky sharks. The EPA stated that while U.S. fishermen likely fish in areas overlapping with dusky shark distribution rather than Galapagos shark distribution, it is very difficult to tell the two species apart. The EPA contends that dusky sharks are morphologically very similar to, and genetically indistinguishable from, Galapagos sharks. Vertebral counts and subtle dorsal fin differences are characteristics used to distinguish the two species and are unlikely to be used without lethally exposing the vertebral column or comparing side-by-side specimens of the two species. The EPA stated that it is unclear how better species identification would resolve species identification difficulties.

Response: NMFS is aware of the difficulty in differentiating between dusky and Galapagos sharks and the emerging research examining genetic differences. However, both species are prohibited from retention and landings, thus, both would be released by any fishermen catching and confusing the species. Because both species are prohibited, NMFS does not see an immediate sustainability threat to dusky sharks due to misidentification between the two species.

Comment 17: The EPA submitted a comment stating that juvenile dusky sharks look very similar to juvenile sandbar, Galapagos, and silky sharks, even if adults are more readily identifiable. They were concerned that misidentification among the four species could reduce the effectiveness of efforts to reduce dusky shark mortality.

Response: NMFS acknowledges the species identification challenges with juvenile dusky sharks and similar-looking species, which has been a chronic hindrance to estimating catches and assessing the stock with catch-based methods. However, the measures in Amendment 5b will reduce mortality rates on all sharks in the affected fisheries, and improve species identification. Because all four of the species mentioned in the EPA’s comment are prohibited in the recreational fishery and cannot be

retained by pelagic longline fishermen, NMFS does not see an immediate sustainability threat to dusky sharks due to misidentification among these four species.

B. Annual Catch Limits (ACLs) and Accountability Measures (AMs)

Comment 18: One commenter stated that NMFS should not set the dusky shark ACL equal to zero. Instead, the commenter felt the Agency must use the best scientific information currently available to set a precautionary ACL that accounts for bycatch interactions of dusky sharks in each fishery that catches dusky sharks and propose AMs to ensure adherence to the ACL (including the current prohibition on retaining dusky sharks). Another commenter stated that dusky sharks should not be grouped with the other prohibited sharks under the same ACL.

Response: Amendment 3 to the HMS FMP (2010) implemented a mechanism for establishing ACLs and AMs for each of the shark management groups. For sharks in the prohibited shark complex, this methodology was not applied because the fisheries were closed and landings were prohibited. Therefore, the ACL was considered to be zero, as clarified in this Amendment. Recent revisions to the NS 1 guidelines (81 FR 71858; October 18, 2016), specify that if an ACL is set equal to zero and the AM for the fishery is a closure that prohibits fishing for a stock, additional AMs are not required if only small amounts of catch (including bycatch) occur and the catch is unlikely to result in overfishing. See 50 CFR 600.310(g)(3).

Here, the ACL for the prohibited shark complex continues to be set equal to zero, and the existing AM for all of the stocks in the prohibited shark fishery is a closure that prohibits fishing for the stocks. Inclusion of a species in the prohibited stock complex means that all commercial and recreational retention is prohibited and the fishery is closed (see § 635.28(b)(1)(iv)). Thus, AMs in addition to the closure are not required if only small amounts of catch occur and the catch is unlikely to result in overfishing. There is no information suggesting that overfishing is occurring on species in the prohibited shark complex, except for dusky sharks, and the Amendment 5b rulemaking is undertaking AMs to end that overfishing.

NMFS notes that there would be policy and scientific/data concerns if we were to specify an ACL other than zero for the prohibited shark complex, including dusky sharks. As noted in the response to Comment 13, there was a high level of uncertainty in the 2016

assessment update, given limited data on dusky sharks, multiple data sources, and five plausible model scenarios. The update had five different TAC estimates, and these estimates were so uncertain and wide-ranging as to be inappropriate for management use according to the SEDAR 21 stock assessment. NMFS does not have a basis for picking one model scenario over another and is concerned that setting an ACL based on the highly uncertain TAC estimates could encourage increased catch. Furthermore, allowing catch or landings, even at low levels, could send a message to fishermen that interactions are permissible at some level and could disincentivize avoidance of interactions, which is one of the goals of the measures adopted in this Amendment. Thus, dusky sharks remain in the prohibited shark complex, with an ACL set at zero. The measures adopted through Amendment 5b, in addition to the continuation of measures adopted as part of the dusky shark rebuilding plan, are AMs.

Regarding the comment that dusky sharks should be removed from the prohibited shark group and managed separately, separating dusky sharks and the other prohibited sharks under separate ACLs, each equal to zero, would not provide any meaningful advantage for any prohibited species over the approach being used. Catch and bycatch estimates, to the extent they are available, will still be tracked individually for each species and in any future assessments for prohibited sharks. Grouping all prohibited sharks under a single ACL does not preclude NMFS from considering management measures to address any sustainability concerns for any single stock, as evidenced by the actions in Amendment 5b. In summary, NMFS has determined that specifying an ACL of zero for the prohibited shark complex, which includes dusky sharks, is appropriate and consistent with the NS1 guidelines and requirements of the MSA.

Comment 19: Another commenter stated that NMFS has essentially operated under an ACL of zero since retention of dusky sharks was prohibited in 2000, has failed to track or limit bycatch of dusky sharks or enforce any limit of bycatch mortality with accountability measures, and in doing so has failed to end overfishing of the stock.

Response: NMFS disagrees. Dusky sharks have been prohibited since 2000, but ACLs were not established for HMS-managed sharks until Amendment 3 (2010). As clarified in this Amendment, the ACL for the stocks in the prohibited shark complex, including dusky sharks,

is zero. The recreational and commercial fisheries for dusky sharks are closed, and the measures adopted in this amendment will ensure that only small levels of bycatch will occur and will not lead to overfishing. Contrary to the commenter's assertions, NMFS has taken significant management actions to address dusky shark overfishing since the prohibition for dusky sharks went into effect and has continuously monitored bycatch levels using all available data sources (see Section 1.2 of the FEIS). The first dusky shark stock assessment was completed in 2006. As a result of that assessment, in 2008, NMFS established a rebuilding plan for dusky sharks and implemented major changes in the shark fisheries that changed how all directed shark fishermen conduct their business (e.g., creation of the shark research fishery, severe reduction of sandbar shark quota to reduce dusky shark bycatch, reduction in the trip limit, etc.). Since that time, there have been other actions in HMS fisheries, such as the implementation of Amendment 7, that have resulted in significant changes throughout HMS fisheries, not just shark fisheries. According to the SEDAR 21 dusky shark stock assessment update, NMFS' management of dusky sharks has significantly reduced fishing mortality on dusky sharks, but not yet completely ended overfishing. Dusky sharks have experienced improvements in their stock status outlook as described in the 2016 stock assessment update and Section 1.2 of the FEIS. Overfishing has been reduced substantially (median F_{2015}/F_{MSY} ratio of five scenarios = 1.18, compared to F_{2009}/F_{MSY} = 1.59 in the previous assessment). As detailed in the ecological impacts section of Chapter 4 of the FEIS, the management measures in Amendment 5b, which are AMs, will build on the success of past measures by further reducing bycatch mortality and ending overfishing. Additionally, NMFS has continually tracked dusky shark bycatch over time through numerous fishery-dependent monitoring programs (observers, logbooks, recreational surveys, etc.), as detailed in Section 1.2 of the FEIS.

Comment 20: One commenter stated that the National Standard 1 provision at 50 CFR 600.310(g)(3) should not apply to the dusky shark fishery. See response to Comment 18 for explanation of the provision. The commenter contends that (1) the dusky shark fishery is not closed as several fisheries that are known to interact with dusky sharks are still open; (2) overfishing is still occurring in the dusky shark fishery; and (3) bycatch is not small

considering the average annual number of dusky sharks caught as bycatch (529 per year according to the DEIS) is more than double the highest estimated TAC of adult dusky sharks (which the commenter calculated would be 249 dusky sharks by dividing the estimated TAC in the assessment by a potential average dressed weight of a mature dusky shark) that would provide a 70-percent chance of rebuilding by 2107, according to the recent SEDAR 21 update. The commenter also stated that the DEIS did not specify a threshold for determining what level of bycatch is “small.”

Response: As discussed in Section 1.2 of the FEIS, the ACL/AM provisions for dusky sharks in Amendment 5b meet the conditions set forth in the NS 1 guidelines. First, the dusky shark fishery is closed, as explained in response to Comment 18. Second, measures under Amendment 5b and this rule will end overfishing for dusky sharks and ensure that the small levels of bycatch are unlikely to lead to overfishing. NMFS notes that the estimated level of overfishing for dusky sharks in the current stock assessment update is not high (median of five plausible model scenarios is F_{2015}/F_{MSY} is 1.18; values >1 indicate overfishing).

Third, for all sharks in the prohibited shark complex, only small amounts of catch (including bycatch) occur. The NS1 guidelines do not provide a definition or detailed guidance on what constitutes a “small” amount of bycatch. However, the available data show that prohibited shark species—including dusky sharks—are not commonly caught as bycatch in HMS or other fisheries. Prohibited sharks as a group have observed bycatch amounts in the 10s and 100s of individuals. By comparison, many fish stocks have observed bycatch amounts estimated in the hundreds and thousands of metric tons, and prohibited shark species collectively represent a small portion of total shark bycatch across all fisheries (U.S. National Bycatch Report, First Edition Update 2, 2016). With regard to the commenter’s TAC calculation, as detailed in the response to Comment 13, the TACs estimated in the 2016 stock assessment update are not considered acceptable for management. Thus, direct comparisons of the observed mortalities summarized in Section 1.2 of the FEIS against the TACs estimated in the stock assessment update are not appropriate.

In addition to requiring that the bycatch be “small,” the NS1 guidelines specify that catch be unlikely to lead to overfishing. According to the available analyses, certain prohibited shark species—basking sharks (Campana,

2008), night sharks (Carlson et al., 2008), sand tiger sharks (Carlson et al., 2009), white sharks (Curtis et al., 2014), and bigeye thresher sharks (Young et al., 2016)—are not experiencing overfishing. While such analyses have not been completed for all of the prohibited shark species, there is no information suggesting that overfishing is occurring on species in this complex, except for dusky sharks, and the Amendment 5b rulemaking is undertaking AMs to end that overfishing.

Comment 21: One commenter stated that the 50 CFR 600.310(g)(3) provision does not exist in the Magnuson-Stevens Act, and the Supreme Court has held that Federal agencies cannot create exemptions to a statute that Congress did not already include.

Response: Section 50 CFR 600.310(g)(3) from the National Standard 1 guidelines is consistent with, and not an exemption to, the Magnuson-Stevens Act. The Act requires that FMPs establish ACL/AM mechanisms with the goal of preventing overfishing from occurring, 16 U.S.C. 1853(a)(15). Section 600.310(g)(3) explicitly provides that its provisions may be invoked if there is an ACL of zero, an AM that is a closure, and “catch is unlikely to result in overfishing.” Response to comment 46 in the final National Standard 1 guidelines revisions (81 FR 71858; October 18, 2016) explains that § 600.310(g)(3) is an optional tool that will only apply to a limited set of cases where there is no way to account for the small amounts of bycatch occurring and, therefore, it is not pragmatic to establish AMs to try to account for such small amounts of bycatch that are unlikely to result in overfishing. NMFS notes that, as a statutory matter, the national standard guidelines do not have the force and effect of law, 16 U.S.C. 1851(b). Consistent with Magnuson-Stevens Act requirements, as detailed in Chapter 4 of the FEIS, there is an ACL/AM mechanism for prohibited shark species, and bycatch of dusky sharks is unlikely to result in overfishing under the Amendment 5b management measures.

Comment 22: A few commenters objected to setting the dusky shark ACL to zero on the grounds that it will lead to further restrictions in fisheries that interact with dusky sharks as the population recovers and interactions with the species increase accordingly due to their increasing abundance. With an ACL set equal to zero, NMFS would have no way to measure success, and dusky shark will inevitably become another choke species that will lead to unnecessary fisheries closures that the

commercial and recreational fisheries cannot afford.

Response: The Magnuson-Stevens Act requires fishery management measures to end and prevent overfishing and to rebuild overfished stocks. An ACL of zero for the prohibited shark complex, including dusky sharks, in conjunction with the continuation of measures adopted in the dusky shark rebuilding plan thus far (e.g., Amendment 2) and the new AMs outlined in Amendment 5b, will prevent overfishing. NMFS agrees that as the population recovers and the dusky shark stock increases, an increase in interactions could occur. NMFS will continue to monitor dusky sharks through the available fishery-dependent and -independent data sources, and future stock assessments, and consider additional management measures in the future if necessary.

Comment 23: One commenter stated that, while NMFS’ intention to monitor bycatch levels of prohibited sharks is necessary, there are no means to determine if bycatch mortality falls within safe ranges because nearly all the prohibited shark species have not undergone a stock assessment. Furthermore, the commenter stated that each of the prohibited shark species is unique with different life history traits, different bycatch levels, and different vulnerabilities. To address this concern, the commenter suggested creating four subgroups of prohibited shark species reflecting high and low levels of fishery interactions and high and low vulnerability based on life history traits. The commenter felt these subgroups could provide a way to prioritize monitoring and stock assessments, and those species with a high vulnerability and high fishery interactions could be prioritized over those with a low vulnerability and low fishery interactions. The commenter noted that this process could occur outside of the Amendment 5b rulemaking process.

Response: Many of the prohibited sharks do not have stock assessments. Stock assessments for prohibited species are often complicated by a near or complete lack of data. However, as this commenter noted, there are ways to prioritize monitoring and stock assessments among the prohibited sharks. NMFS has used methods to prioritize monitoring and stock assessments of prohibited sharks since first beginning management of Atlantic sharks with the 1993 FMP. Based on this prioritization, an initial analysis was performed of sharks that have more vulnerable life history traits and presumably higher levels of fishery interaction. Based on this information, retention of dusky sharks was

prohibited through the 1999 FMP, effective in 2000.

The Brief Management History section of Chapter 1 has more detail and final rule references for this action. NMFS later created a Vulnerability Evaluation Working Group in 2008 to provide a methodology to determine vulnerability (a function of both biological productivity and susceptibility to fisheries) of a wide range of U.S. fish stocks (Patrick et al. 2009, 2010). Atlantic HMS sharks, including prohibited species, were part of this Productivity and Susceptibility Analysis (PSA), which found that the vast majority of prohibited species fell in the same region of the PSA plot (see Figure 5 in Patrick et al. 2009) indicating similar vulnerability. It was noted in the document that 12 of the 14 prohibited species had some of the lowest susceptibility scores of all HMS Atlantic sharks. NMFS welcomes comments on ways to improve the stock assessment prioritization process, and may consider such changes in the future. However, this comment remains beyond the scope of Amendment 5b.

C. Dusky Shark Stock Assessment and Mortality Reduction Targets

Comment 24: One commenter noted that the dusky shark assessment update may not be accurate because it did not consider several issues, including fishermen avoidance of the species since 2000; the potential non-reporting of dusky shark catches; flaws in some fishery independent surveys to account for range shifts due to climate change and other factors; and continuing problems in species identification. That commenter felt the next assessment should be a benchmark assessment that considers these issues. Another commenter noted the need to conduct a benchmark assessment for dusky sharks to address these and straddling stock (trans-international boundary) issues. Commenters also stated that future dusky shark stock assessments should include data from Mexican and Cuban water fisheries that also interact with dusky sharks.

Response: Both the SEDAR 21 dusky shark stock assessment and stock assessment update acknowledge the uncertainties in all of the input data sources. However, these uncertainties were characterized to the extent possible and accounted for within the assessment model runs. NMFS has not yet scheduled the next dusky shark stock assessment, and agrees that the next dusky shark assessment should include a review of all available data sources, and should also investigate methods for addressing changes in

management and fishing behavior, the validity of fishery-independent sources, environmental factors, potential data from neighboring nations that may catch dusky sharks, and other relevant information to improve the assessment.

Comment 25: Some commenters were opposed to NMFS' decision to use mortality reduction targets estimated to provide a 50-percent probability of rebuilding the dusky shark stock by 2107. They contend that previous actions involving Atlantic HMS sharks have generally used the 70-percent probability for other sharks and that NMFS, in the Predraft for Amendment 5b, stated that the 70-percent probability is the most appropriate. The commenters stated that the necessary mortality reductions should reflect the 70-percent probability threshold given the fact that previous measures have failed to end overfishing over the last 10 years. One commenter stated that NMFS' rationale for using the 50-percent probability is incorrect. The commenter stated that while NMFS chose the 50-percent probability because the dusky shark assessment was highly uncertain, it was no more uncertain than the last dusky assessment and assessments for other shark species. The commenter also stated that NMFS chose the 50-percent probability because the assessment results were more pessimistic than expected, so NMFS changed the mortality reduction objective rather than properly addressing the results of the assessment. One commenter who supported the use of a 50-percent probability threshold noted that 50-percent is a commonly used standard that has been judicially-approved for ending overfishing and the 50-percent threshold makes sense given the higher level of uncertainty associated with the update compared to past stock assessments.

Response: NMFS' determination to use the fishing mortality reduction associated with a 50-percent probability of rebuilding by 2107 is a standard approach in many NMFS stock rebuilding plans, is consistent with the Consolidated HMS FMP, and is scientifically justified as detailed in Section 1.2 of the FEIS. While NMFS typically uses a 70-percent probability for Atlantic highly migratory shark species, the 2016 update has a higher level of uncertainty than other shark assessments and presents a more pessimistic view of stock status than was expected based on a preliminary review of similar information and other available information. Such information includes the information reviewed in the ESA Status Review, reductions in

U.S. fleet fishing effort due to management actions not reflected in the 2016 stock assessment update, and improved age and growth information indicating that dusky sharks have faster age and growth dynamics than previously thought, which likely results in higher productivity than that considered in most of the model scenarios of the 2016 stock assessment update (Natanson et al., 2014). It is possible that the "high productivity" model scenario encompassed the effects of this new life history information, while also reducing the plausibility of the "low productivity" scenario. This information could not be directly used in the 2016 assessment update, because assessment updates only incorporate data inputs (e.g., time series, life history parameters, etc.) that were previously vetted through the SEDAR process and approved as part of the most recent benchmark assessment. Here, that was the 2011 benchmark stock assessment (SEDAR 21). Based on its review of the 2016 update, understanding about the operation of the HMS fisheries under current management measures, and other available information, the F estimate associated with the 50-percent probability more accurately reflects current fishing pressure and accounts for the new information on dusky shark productivity than the F estimate associated with the 70-percent probability. Because of these issues, NMFS decided it was appropriate from a scientific perspective to use the F reduction associated with the 50-percent probability of rebuilding by the deadline in Amendment 5b. Using the F reduction associated with a 50-percent probability, rather than a 70-percent probability, appropriately reflects this change in risk tolerance while remaining sufficiently precautionary and is consistent with the standard used in rebuilding plans for most NMFS-managed stocks.

From a statistical perspective, the wider confidence band in the projections results in the F estimate associated with a 70-percent probability being substantially lower than the apical value (the value at the peak of the distribution of F estimates). Thus, the F reduction associated with 70-percent goes well beyond what NMFS would consider appropriately precautionary even for species with relatively slow life history such as sharks. NMFS also notes that the rebuilding year (i.e., length of time the species could rebuild with no fishing mortality plus one mean generation time) was calculated using a 70-percent probability, as is typically done in assessments, which additionally

increases the likelihood of achieving rebuilding within the mandated time period. Furthermore, while the probability of rebuilding the dusky shark stock by 2107 with a 35-percent mortality reduction is 50 percent, the probability of this mortality reduction immediately ending overfishing is approximately 77 percent according to the results of the final 2016 stock assessment update.

Comment 26: One commenter specifically called for an ACL that will achieve at least a 50-percent reduction in dusky shark fishing mortality across all fisheries to ensure a 70-percent probability of successfully rebuilding by 2107, as designated by the U-Shaped mortality scenario described in the DEIS and the recent SEDAR 21 stock assessment update. Another commenter suggested that only an 8-percent reduction in fishing mortality is necessary because the U-shaped mortality scenario F/F_{MSY} is only 1.08.

Response: NMFS acknowledges that the 2016 stock assessment update provided five different model runs, all of which represent plausible states of nature for the dusky shark stock, consistent with the SEDAR 21 benchmark assessment. However, as described in the assessment documents and Section 1.2 of the FEIS, there is no scientific basis to select one model run over another. Therefore, consistent with the approach used in comparable situations in other stock assessments, a multi-model inference was made using the results of the median model. In this case, the U-shaped Natural Mortality model run recommends a 53-percent reduction in mortality to achieve a 70-percent probability of rebuilding by 2107. As described in the response to Comment 25 above, use of a 50-percent probability of rebuilding is warranted in this case. Therefore, NMFS has determined that the best available scientific information supports the use of the median model and a mortality reduction associated with a 50-percent probability of rebuilding by the deadline (*i.e.*, 35 percent). Furthermore, there is no acceptable ACL associated with achieving any of the mortality reductions presented in the stock assessment update, as described in Section 1.2 of the FEIS. The ACL for the prohibited shark complex is zero, and this action is reducing mortality on dusky sharks using other measures since there are insufficient data to quantify catch or TACs with any certainty. Finally, NMFS disagrees that under the U-shaped mortality scenario, only an 8 percent mortality reduction is needed. An 8-percent mortality reduction may end overfishing, but would not rebuild

the stock as required. A 35-percent mortality reduction is needed to end overfishing with a 50 percent probability and will be achieved by the measures adopted in this Amendment.

Comment 27: The EPA suggested clarifying why it is appropriate to set a 35-percent mortality reduction target for dusky sharks when the 2011 stock assessment recommended a 58-percent decrease relative to 2009 levels.

Response: The mortality reduction targets changed after the 2016 assessment update and, as described in the response to Comment 25, NMFS has determined that Amendment 5b measures should reduce dusky shark mortality by 35 percent to end overfishing and rebuild the stock consistent with the most recent assessment update.

As detailed in Chapter 1, the 2011 SEDAR 21 dusky shark stock assessment used data through 2009. After finalizing that stock assessment and beginning rulemaking to implement a rebuilding plan for dusky sharks, it became apparent that management measures implemented after 2008 in HMS fisheries (*e.g.*, measures in Amendment 2) had reduced dusky shark interactions and mortality. Furthermore, fishery-independent abundance indices prepared for the ESA status review showed increasing dusky shark population trends. Consequently, the Agency prioritized an update to the SEDAR 21 dusky shark stock assessment, using data through 2015, to incorporate recent management changes and updated fishery-independent indices. The SEDAR 21 dusky shark stock assessment update found that while the stock is still overfished and experiencing overfishing, the stock status was healthier than shown in the original SEDAR 21 assessment.

D. Shark Endorsement, Training, Species Identification, and Outreach

Comment 28: NMFS received numerous comments in support of the shark endorsement (Alternative A2), including from the South Atlantic Fishery Management Council (SAFMC), and the States of North Carolina, South Carolina, and Texas. NMFS received comments expressing concerns and recommendations regarding the shark identification and training quiz. The State of Mississippi commented that shark species misidentification is not a problem in Mississippi waters. One comment stated that a test to obtain a permit was unheard of in salt and freshwater fishing and many fishermen may decide simply not to fish for sharks to avoid the burden of the online course. Another commenter noted that because

hunters need to take a safety class with bird identification in the State of Florida to get a hunting license, an online class such as what is proposed and another for all HMS species, particularly in regard to reporting requirements, in order to receive a vessel permit is reasonable. Another comment indicated that misidentification and lack of data are the underlying issues facing the rebuilding of dusky sharks, and both of these can be properly and sufficiently addressed through a comprehensive HMS shark endorsement program (as outlined in Alternative A2) with online education modules during issuance and renewal of the endorsement. The commenter suggested that the quiz should focus on prohibited species identification (specifically dusky, sandbar, or ridgeback sharks), best practices for safe handling interaction, and a cooperative data collection initiative through reporting requirements. The commenter felt that cooperatively increasing fisherman knowledge and understanding of resource interactions allows for responsible management while also creating a sense of responsibility and stewardship of the resource. Lastly, another commenter noted that most anglers who have the time, resources, and knowledge to fish offshore already know how to properly identify a fish before harvesting it.

Response: NMFS recognizes that the shark identification and regulations quiz accompanying the proposed shark endorsement represents a novel measure in the realm of marine recreational fisheries; however, it is by no means unprecedented in the realm of conservation management. As one of the supporting commenters noted, hunters in the State of Florida are required to take hunter safety classes that include a bird identification section, and similar hunter safety courses are required in almost all states. Compared to hunter safety courses, which historically could last an entire day or more, the proposed shark identification and regulations training course and quiz will place minimal burden on recreational anglers as it is intended to take only a few minutes to complete, while still conveying the necessary information in an efficient manner. The quiz will focus on dusky shark conservation to more effectively meet sustainability goals. Additionally, many commercial fishermen that pursue HMS fisheries have long been required to take extensive training workshops on the identification and safe release of protected species that can take a full day to complete. NMFS has identified

accidental landings due to misidentification as one of the primary sources of dusky shark mortality in the recreational fishery. NMFS considered several alternatives to address this problem including drastically increasing the minimum size for sharks and making the recreational shark fishery catch-and-release only. Both of these alternatives will have been assured to largely end accidental landings of dusky sharks in Federal waters, but will have had a far greater impact on the recreational fishery while doing far less to target the underlying issue of misidentification. As such, NMFS decided to prefer the more targeted approach of education and communication that could be provided by the shark identification and regulation training course and quiz. NMFS realizes that many recreational HMS anglers already know how to identify HMS species, including dusky sharks, and are familiar with HMS regulations. However, NMFS cannot be assured of getting the necessary information to those anglers who need it without requiring it of all Federal water anglers that wish to target and land sharks.

Comment 29: NMFS received a comment from the State of South Carolina which noted that they do not oppose the requirement for the shark endorsement for HMS permit holders fishing in Federal waters, but stated that NMFS needs to remove the phrase "fishing for sharks recreationally" to make it clear that the endorsement is needed to land sharks caught in Federal waters whether the angler in question was targeting sharks or not. The State of South Carolina Department of Natural Resources (South Carolina DNR) also stated that the proposed shark endorsement is in direct conflict with South Carolina law Section 50-5-2725 because permits are not required for the possession of sharks in South Carolina state waters. South Carolina DNR stated that, therefore, South Carolina would not enforce this final rule in its state waters.

Response: This final rule does not conflict with or preempt any state regulations, nor does it place any enforcement requirements on states. Recreational shark anglers fishing exclusively in state waters will not be required to obtain the shark endorsement just as they are not required to obtain an Atlantic HMS Angling or Charter/Headboat permit, and states need not enforce Federal regulations against shark anglers who do not hold Federal permits. However, those recreational shark anglers that wish to target, retain, and land sharks in

Federal waters will be required to obtain a shark endorsement along with their Atlantic HMS Angling or Charter/Headboat permit. Once the angler has a Federal permit, as a condition of that permit, the angler must abide by the Federal regulations, regardless of where they are fishing, including in state waters, unless the state has more restrictive regulations, as specified in the Final Fishery Management Plan for Atlantic Tunas, Swordfish, and Sharks (64 FR 29090; May 28, 1999). HMS permit holders have been required to follow federal requirements in state waters as a condition of obtaining a federal permit since 1999 for commercial permit holders and since 2006 for recreational permit holders. As explained in the FEIS for the 2006 Consolidated HMS Fishery Management Plan, the previous differing requirements between state and Federal regulations and the inability to verify whether or not a particular fish onboard a vessel was caught in state waters or Federal waters generated confusion for the federal permit holders. The states have been previously consulted on these Federal permit conditions, and are regularly consulted on all HMS management plan amendments.

Comment 30: NMFS received a comment that supported the shark endorsement and suggested that NMFS implement the shark endorsement in non-HMS recreational fisheries that interact with sharks as well.

Response: NMFS only has authority to manage shark fisheries in Federal waters, and any recreational angler fishing in Federal waters of the Atlantic, Gulf of Mexico, or Caribbean that wishes to retain sharks must possess an Atlantic HMS Angling or Charter/Headboat permit. As such, all recreational anglers that fish in Federal waters of the Atlantic will be required to obtain the shark endorsement to retain sharks. Individual states and the Regional Fisheries Management Commissions and Councils have the option to require Atlantic HMS permits of anglers fishing in state waters or for non-HMS, but the authority to do so lies with them and not NMFS. As stated above, once the angler has a Federal permit, as a condition of that permit, the angler must abide by the Federal regulations, regardless of where they are fishing, including in state waters, unless the state has more restrictive regulations.

Comment 31: Commenters stated that NMFS should include a reporting requirement as part of the shark endorsement for all shark landing or develop a sampling protocol to survey

shark populations to improve data reliability in the recreational sector.

Response: As described in Chapter 2 (under Alternatives Considered but Not Further Analyzed), NMFS is not planning to include reporting requirements as part of the initial implementation of the shark endorsement, which could result in duplicative data collection efforts in recreational fisheries (e.g., MRIP, the Large Pelagics Survey (LPS)). However, NMFS is hopeful that the endorsement can serve as a framework for improving the sampling of recreational anglers that target sharks for surveys like those conducted by MRIP. How well this works will depend on what percentage of HMS anglers acquire the endorsement. The more HMS permit holders that acquire the endorsement, the less of a targeted sample it would provide compared to the existing HMS Angling and Charter/Headboat permits. However, this is counterbalanced by the fact that the more anglers getting the endorsement means the more anglers that will be receiving the targeted outreach and education materials on shark identification, safe handling, and shark fishing regulations, and the more anglers would then provide the correct shark identification when responding to surveys.

As for the suggestion to include a reporting requirement in conjunction with the shark endorsement, HMS permit holders are already required to report their catches and landings when intercepted by NMFS catch and effort surveys like MRIP and the LPS. At this time, NMFS is not planning to require any additional reporting requirements similar to the requirements for billfish, bluefin tuna, and swordfish. The mandatory reporting requirement for most of these species is only to report fish that are landed (bluefin tuna reporting also includes dead discards), and because landing dusky sharks is prohibited, any similar reporting requirement for sharks should not provide data on dusky catches. NMFS is also reluctant to require reporting on released sharks as the agency does not have the authority to extend the requirement to state water anglers who are responsible for a significant portion of recreational catches and landings for most shark species. This is not a concern with other HMS with mandatory reporting requirements as NMFS manages bluefin tuna to the shore, and billfish and swordfish are very rarely caught in state waters. NMFS is also in the process of reviewing the needs of MRIP and the LPS as part of the Regional MRIP Implementation Plan. As part of that review, NMFS is

considering what, if any changes, are needed to improve recreational estimates of shark harvest.

Comment 32: NMFS received comments requesting an option to cancel the shark endorsement for fishermen when they are not fishing for sharks or sharks are not in their area. Other commenters expressed concern that providing an option for cancelling the shark endorsement throughout the year would create confusion as to who and when fishermen could retain/land sharks during a given year.

Response: NMFS believes the demand for the option to drop the shark endorsement will be largely negated by the new circle hook alternative (A6d) that requires endorsement holders to use circle hooks only when fishing for sharks, as opposed to the previously preferred alternative (A6a), which required the use of circle hooks whenever fishing with wire or heavy monofilament or fluorocarbon leader, as the new preferred alternative removes any potential conflicts with non-shark fisheries. If sharks are to be retained, circle hooks must be used, regardless of bait or gear configuration (with the exception of artificial lures and flies). NMFS will still provide the option for anglers to drop the shark endorsement if they so desire.

Comment 33: NMFS received a comment from the SAFMC suggesting that NMFS include a small fee for the shark endorsement to provide a minor barrier to entry. The comment noted that the fee would assist with defining the universe of fishermen actually targeting sharks, and thus improve the ability of the shark endorsement to provide a targeted sampling frame for shark anglers. Other commenters stated that there should not be an extra fee for the shark endorsement because the HMS Angling Permit already has a fee.

Response: NMFS has considered the possibility of charging a separate fee for the shark endorsement, but has opted not to take that direction at this time as it does not represent a standalone permit. Additionally, NMFS does not want to unduly discourage permit holders from receiving the endorsement as the primary goal of the endorsement is to facilitate education and outreach on shark identification, safe handling, and fishing regulations while using the endorsement as a sample frame for data collection is only a secondary benefit. Furthermore, it is generally agreed that those anglers and charter/headboat captains that do not regularly target sharks, and are more likely to only interact with a sharks incidentally, are the ones that will most benefit from the educational aspects of the shark

endorsement while also being the ones most likely to opt not to obtain it if it required paying an additional fee. As such, NMFS believes the benefits of the shark endorsement to dusky shark conservation will be maximized if a fee is not charged. Furthermore, NMFS does not see a need to limit entry into the recreational shark fishery to promote dusky shark conservation as they are not a target species, but are only caught incidentally.

Comment 34: NMFS received numerous comments regarding the online shark identification and training course. One commenter noted that the online quiz should be short and quick, and specifically address dusky sharks. Another commenter felt that the shark identification quiz should focus on prohibited species identification, and best practices for safe handling. To improve and evaluate the effectiveness of the shark endorsement, one commenter recommended that implementation of the endorsement and online training course follow key principles for effective e-learning, and include an evaluation component to assess its effectiveness at educating permit holders. This commenter submitted detailed information on how to approach and evaluate adult learning in online training.

Response: In the interest of minimizing burden to the angling public, NMFS intends to keep the shark endorsement short and targeted. It will focus on key recreational shark fishing regulations (minimum size limits, bag limits, and circle hooks), and key identifying characteristics of prohibited shark species such as the interdorsal ridge. More detailed information on shark identification and safe handling techniques will be distributed to shark endorsement holders through targeted outreach materials that the angler can keep on hand for future reference. NMFS greatly appreciates the information and literature one commenter provided on adult learning and online training. NMFS will strive to apply adult learning principles in the design of the shark endorsement training and quiz. NMFS intends the shark endorsement quiz to be an adaptive tool that will be evaluated on a regular basis to determine which questions provide the most educational benefit, what topics require the most targeted outreach, and how the training course can be improved.

Comment 35: NMFS received a comment requesting that all applicants applying for the shark endorsement be asked to provide an estimated number of sharks caught in the previous year. The comment noted that many

fishermen may choose to get the shark endorsement regardless of whether they intend to target sharks “just in case.” Providing information on the number of sharks caught in the previous year would allow NMFS to have a more accurate representation of the universe of fishermen targeting sharks in any given year.

Response: Asking shark anglers to recall the number sharks they have caught in the previous year as part of the shark endorsement would result in highly inaccurate responses given the long length of the recall period (12 months). None of the current MRIP surveys use recall periods of anywhere near this length with most using recall periods of only two months. This measure is not considered reasonable because it would be duplicative with existing recreational fishery data collection efforts (e.g., MRIP, LPS) and would not meet the primary objectives of this amendment (i.e., ending overfishing and rebuilding dusky sharks). Furthermore, the collection of such data would likely be inaccurate and difficult, if not impossible, to verify as anglers would need to remember all trips and catches from the previous year. Existing data collection efforts, while still flawed, produce better catch and effort estimates than collection of such information once a year when someone is applying for a permit. Additionally, creation of this type of data collection would likely be costly in terms of the data management infrastructure needed, and the data management clearances required for the collection could delay implementation of this action, which is needed to end overfishing on dusky sharks. NMFS is currently looking at ways to improve MRIP and LPS data collection surveys for all HMS as part of its regional MRIP implementation plan. Any changes as a result of those data collection methods would result in more reliable recreational data than a once-a-year collection of information when people are applying for the shark endorsement.

Comment 36: NMFS received a comment from the SAFMC which noted that when applying for the shark endorsement, NMFS should make it clear that those fishermen holding the endorsement would need to use circle hooks in certain situations and that sharks caught incidentally on J-hooks would need to be released.

Additionally, the SAFMC noted, when presented with the option to apply for the endorsement, NMFS should clearly inform fishermen that, without the endorsement, sharks cannot be retained.

Response: NMFS agrees with the SAFMC's comment that it is important

to make it clear to anglers applying for the shark endorsement that circle hooks will be required when fishing for sharks, that sharks incidentally caught on J-hooks will need to be released, and that the shark endorsement will be required to retain sharks caught in Federal waters. All of these issues will be highlighted during the permit application process and shark endorsement quiz.

Comment 37: NMFS received comments suggesting shark fishermen or all HMS permitted vessels be required to carry a shark identification placard (Alternative A3) instead of taking the online quiz to receive the shark endorsement.

Response: NMFS considered requiring HMS permitted vessels to carry a shark identification placard in alternative A3. NMFS did not prefer this alternative because while anglers could be required to carry a placard that, if used, might help identify dusky and other sharks, ensuring that anglers reference the material would be difficult. NMFS feels that Alternative A3 will provide for a more passive learning experience and does not provide feedback to the angler like the online shark endorsement quiz in Alternative A2. However, as part of the outreach and education campaign described in Alternative A2, NMFS intends to provide additional outreach materials, in addition to the placard, that anglers could use as a reference after taking the quiz.

Comment 38: NMFS received a comment requesting that NMFS require all HMS recreational permit applicants participate in a broader training course encompassing regulations on all HMS recreational fisheries including sharks. The comment noted that the HMS permit should be issued on completion of the training course.

Response: The purpose of this action is to address the specific issue of ending overfishing of dusky sharks in the Atlantic, and no additional benefit to dusky sharks would likely occur as a result of the broader training course suggested by the commenter. Rather, the commenter's suggestion was aimed at improving angler knowledge of all HMS identification and recreational fishing regulations, which has not proven to be a significant issue. Using this action to require all anglers applying for an HMS permit to take a broad training course on HMS fisheries regulations and species identification to address a minor issue that is not targeted exclusively toward ending overfishing of and rebuilding dusky sharks is beyond the scope of this action. While such a training course might be beneficial, issues of species misidentification have not proven to be

a consistent problem and driver of overfishing in non-shark HMS fisheries. As such, NMFS believes that a more targeted course on shark identification and regulations will be more likely to achieve the goals of this action.

Comment 39: NMFS received numerous comments from recreational fishermen regarding the impact of the shark endorsement on data collection. One commenter noted the shark endorsement would provide a better estimate of recreational shark fishermen and increase the confidence in MRIP shark catch estimates. Other commenters were concerned that the shark endorsement would lead to inflated shark catch estimates, further noting that most HMS anglers would choose to get the endorsement, regardless of whether they plan to target sharks in order to keep the option for shark fishing open. Additionally, one commenter felt that the shark endorsement benefit would be minimized by the fact that HMS permits are vessel-based; therefore, the permit holder, rather than the individuals fishing, would be reporting.

Response: NMFS expects that the endorsement can serve as a framework for improving the sampling of recreational anglers that target sharks for MRIP surveys like the LPS. NMFS recognizes that the more HMS permit holders that acquire the endorsement, the less of a targeted sample it would provide compared to the existing HMS Angling and Charter/Headboat permits; however, this should not result in inflated estimates of sharks caught in Federal waters. The HMS Angling and Charter/Headboat permit lists are already used as sampling frames for the LPS and the For-Hire Survey, which provide estimates of shark fishing effort and landings by HMS permit holders. If all HMS permit holders obtain the shark endorsement, then the survey sampling frames would remain the same, and the resulting estimates should be largely unchanged. However, the fact that HMS permits, and thus the shark endorsement, are vessel-based permits will limit its usefulness as a sampling frame for other MRIP surveys that are not vessel based, but instead target individual anglers.

Comment 40: NMFS received comments suggesting that NMFS update the shark identification placard to include information for dusky sharks. Other commenters felt that a dusky shark identification guide should be printed directly on the HMS Angling permit.

Response: In addition to the shark endorsement, NMFS will be conducting an extensive outreach and education

campaign on shark identification and fishing regulations. This will include updating the existing shark identification placard, and developing dusky shark specific educational materials that will be distributed at locations that anglers frequent, such as tournaments or bait shops, and to individuals that acquire the shark endorsement. NMFS does not plan to print the shark identification guide directly on the HMS Angling permit at this time as this would substantially increase the size of the permit. Furthermore, NMFS has received numerous anecdotal accounts that anglers rarely read their permits and disseminating information through permits may not be effective.

Comment 41: NMFS received a comment expressing concern regarding the impact the proposed dusky measures will have on charter or recreational fishing vessels that fish for both sharks and tuna on the same trip. In New England, most sharks are caught incidentally when fishing for other pelagic species, particularly tuna. The comment noted that combined tuna and shark trips are critical for charter fishing businesses and anglers should be allowed to fish for both species in the same day with the same permit.

Response: None of the provisions in Amendment 5b are intended to prohibit anglers from pursuing sharks and other HMS during the same fishing trip. An angler possessing a shark endorsement is not prohibited from fishing for other HMS when appropriately permitted to do so and consistent with requirements. Permit holders wishing to retain sharks will be required to use circle hooks to fish for sharks, unless they are fishing in New England waters north of 41°43' N. latitude, or are fishing with flies or artificial lures. This boundary line for the circle hook requirement was added to the new preferred Alternative A6d to eliminate any impacts to the HMS recreational fishery outside of the dusky sharks' known range. The exception for flies and artificial lures was added because NMFS heard from commenters, including the State of Florida and the SAFMC, concerned that fly fishing for sharks could inadvertently be impacted by the requirement to use circle hooks when targeting sharks with natural bait. Although not widely done at this time, some fishermen target sharks with fly fishing gear, usually with J-hooks. NMFS does not know of instances where cut or whole bait is used when fly fishing for sharks, but it is common for the terminal fly to include natural components such as bird feathers. Furthermore, it is well known by

anglers, and verified by research, that artificial lures and flies rarely gut hook sharks or other fish species, and are much less likely to do the type of tissue or organ damage that leads to post-release mortality. For these reasons, in the final action, NMFS has preferred to specifically exempt shark fishermen using flies and artificial lures from the circle hook requirement.

Comment 42: NMFS received comments suggesting the need for cooperation between the Agency, States, and Councils to ensure that outreach materials reach recreational state water fishermen. Commenters noted that recreational state-water fishermen have a high likelihood of misidentifying sharks. Furthermore, commenters noted recreational state-water fishermen in the State of North Carolina potentially are interacting with dusky and sandbar sharks depending on time of year and weather. The EPA also recommended that NMFS provide incentives to tournament organizers, fishery associations, etc., to encourage and enlist their participation in increasing fishermen's awareness of prohibited shark species identification and regulations.

Response: NMFS is aware that tournament anglers and anglers that fish exclusively in state waters make up a portion of the recreational shark fishery, and are likely interacting with dusky and sandbar sharks depending on their region and time of year and weather. As such, NMFS fully intends to work with the state agencies, commissions, councils, and shark tournament organizers to ensure that shark educational and outreach materials reach all of these anglers. NMFS will be developing a detailed outreach plan for dusky shark conservation efforts that will identify points of contact at state agencies, fishery management councils, and major shark fishing tournaments with a particular focus on those regions where dusky shark interactions are most common. Outreach efforts by NMFS will also target recreational fishing publications that cater to shark anglers.

E. Alternative A6—Circle Hooks in the Recreational Fishery

Comment 43: NMFS received various comments regarding the proposed circle hook measure's potential to achieve mortality reductions. Some commenters felt that circle hooks would reduce the chance of gut hooking and increase the chance of post-release survival for dusky sharks, consistent with our analyses in the draft Amendment. Other commenters support the circle hook requirement for recreational shark fisheries but question the effectiveness

of the requirement as it relates to reaching a 35-percent reduction in mortality given the inconsistency of study results between different species of sharks. Additionally, NMFS received a comment that noted that Amendment 5b lacks sufficient quantitative analysis on how the circle hook requirement would achieve mortality reduction. Some commenters felt the circle hook requirement would negatively impact fishermen targeting other species and cause economic hardships while being unenforceable. Other commenters felt that little scientific evidence exists to support the mandatory use of circle hooks while some commenters noted that circle hooks are designed not to hook anything until they find a hard edge, reducing the chances of hooking internal soft tissue, and would be beneficial for sharks. Commenters further noted that more research is needed on the use of circle, J, and barbless J-hooks. The EPA commented that NMFS should provide incentives to tournament operators, fishery associations, etc., to encourage and enlist their participation in advocating for recreational fishermen's use of circle hooks by all Atlantic HMS permit holders participating in fishing tournaments when targeting or retaining sharks.

Response: Circle hooks provide demonstrably positive benefits to dusky sharks caught and released in the recreational shark fishery. While post-release survival is important for the stock health of most species, it can be particularly important for prohibited species because post-release mortality is the primary source of fishing mortality for the stock. As such, ensuring that dusky sharks are released in a condition that maximizes survival is an important way to reduce fishing mortality. Most evidence suggests that circle hooks reduce shark at-vessel and post-release mortality rates without reducing catchability compared to J-hooks, although it varies by species, gear configuration, bait, and other factors. Willey et al. (2016) found that 3 percent of sharks caught recreationally with circle hooks were deep hooked while 6 percent caught on J-hooks were deep hooked. A more detailed examination of these data provided to NMFS by Willey et al. indicated even greater positive impacts specific to dusky sharks, showing a deep-hooking rate of 6 percent for circle hooks and 17.5 percent for J-hooks in dusky sharks (N=230); a reduction of 66 percent. Campana et al. (2009) observed that 96 percent of blue sharks that were deep hooked were severely injured or dead

while 97 percent of sharks that were hooked superficially (mouth or jaw) were released healthy and with no apparent trauma. Therefore, assuming that deep hooking in dusky sharks results in comparable post-release mortality rates to those of blue sharks (96 percent), converting recreational shark fisheries from J-hooks to circle hooks should reduce the mortality rate of hooked dusky sharks by 63 percent $((17.5\% - 6.0\%/17.5\%) * 96\% = 63\%)$. By requiring circle hooks for shark fishing in the recreational fishery, dusky sharks that are inadvertently caught in the recreational fishery would be more easily released in better condition, reducing dead discards and post-release mortality. While additional studies, including on the use of barbless J-hooks, are always helpful, the existing literature supports a circle hook requirement in the recreational shark fishery to reduce dusky shark mortality. As suggested by the EPA, NMFS intends broad-scale outreach across a number of fishing organizations to inform the affected public about new management measures and the dusky shark sustainability concerns.

Comment 44: NMFS received a large volume of comments expressing concern over the proposed definition of shark fishing for purposes of applicability of the circle hook requirement in the alternative preferred in the draft Amendment (A6a). Commenters, including the States of Florida and North Carolina, noted that the proposed language would have the effect of including fishing in multiple non-shark recreational fisheries such as swordfish deep dropping and trolling for billfish, tuna, wahoo, and mackerels. The proposed measure required that circle hooks be used by everyone who has the shark endorsement and who fishes with the specified natural bait/gear configuration. The State of South Carolina opposed Alternative A6a as originally proposed, as it would place a significant burden on fishermen not fishing for sharks but who opt to get the endorsement in case they want to land a bycaught shark, specifically impacting fishermen trolling offshore for dolphin, wahoo, and tuna. Commenters suggested that NMFS remove the definition of shark fishing as it relates to applicability of the measure to avoid potential conflicts with other fisheries. Additionally, NMFS received comments, including from the SAFMC and the State of Texas that suggested the shark fishing definition should apply to all recreational fishermen targeting sharks, instead of all fishermen using wire, or heavy monofilament or

fluorocarbon leaders, and natural baits and that doing so would minimize impacts of the measure and its attendant costs on non-shark fisheries. Furthermore, NMFS received comments stating that a better definition of shark fishing for the circle hook requirement would include chumming activities, large chunks of cut natural bait (dead or alive), wire greater than #9 gauge, multistrand cable, or monofilament leaders greater than 2.0 mm, activities that were excluded from the previous definition's approach.

NMFS received a comment suggesting that using hook size as an indicator of shark fishing, as proposed in another non-preferred alternative (Alternative A6b), would be complicated and ineffective. The comment noted that determining specific hook size requirements would be difficult given differences between manufacturers, especially regarding a multi-species fishery. NMFS also received comments from the State of Florida and the SAFMC requesting recreational fishermen using flies with natural components (*i.e.*, hair, feathers) be exempted from the natural bait definition.

Response: NMFS agrees that definition of shark fishing proposed in the DEIS and proposed rule would sometimes impact other types of non-shark fishing. It is not NMFS' intention to impose circle hook requirements on non-shark fisheries because those fisheries rarely interact with dusky sharks. For these reasons, NMFS modified the circle hook requirement, presented as Alternative A6d. Under this new preferred alternative, instead of requiring circle hooks when a specified gear configuration is used (*e.g.*, strong leaders and natural bait, or the non-preferred option of hook size and natural bait), circle hooks will be required on any fishing line deployed to target sharks, unless artificial lures or flies are used since artificial lures and flies rarely result in gut-hooking. With this alternative, NMFS broadly requires circle hooks for all recreational shark fishing within a defined geographical boundary unless fishing with artificial lures or flies, as discussed below), rather than more narrowly when shark fishing with a particular gear/bait configuration. This measure ensures that all recreational shark fishing is included (except when fishing with artificial lures or flies) in the circle hook requirement while avoiding the unintended effect of requiring circle hook use in non-shark fisheries. Within the defined geographical boundary, shark possession and landing will still be prohibited if the shark was not

retained on a circle hook or using an artificial lure or flies.

Chumming and large chunks of cut bait were excluded from the definition of shark fishing in the proposed rule/Draft Amendment because neither are used in all shark fishing trips, both are used in many other marine recreational fisheries, and their inclusion would have effectively limited enforcement of the circle hook requirement to when fishing activity was directly observed on the water. Additionally, what constitutes a large chunk of cut bait can vary considerably depending on the target species, including among different species of sharks.

Alternatively, wire greater than #9 gauge, multistrand cable, and monofilament leaders greater than 2.0 mm all fell within the leader requirement within the definition of shark fishing under Alternative 6a, and comment was requested on the specific leader weight definitions. However, given the general opposition to the leader requirement, and the definition of shark fishing, it was determined that another course of action was preferable to modifying the leader requirements for using circle hooks. NMFS heard from commenters, including the State of Florida and the SAFMC, concerned that fly fishing for sharks could unnecessarily be impacted by the requirement to use circle hooks whenever recreationally fishing for sharks. Although not widely done at this time, some fishermen target sharks with fly fishing gear or artificial lures, usually with J-hooks. NMFS is providing an exemption for artificial lures and flies from the circle hook requirement. Such lures, which mostly use J-hooks, are fished actively, meaning that sharks don't have an opportunity to swallow the hook, and are therefore mostly hooked in the mouth. There is no evidence that artificial lures or flies frequently cause gut-hooking and associated post-release mortality (Muoneke and Childress, 1994; Brownscombe et al., 2017). For this reason, in the final action, NMFS has preferred to specifically exempt shark fishermen using flies and artificial lures from the circle hook requirement.

Comment 45: The State of South Carolina suggested that NMFS exempt fishermen trolling from the circle hook requirement as the conservation benefit is unclear. NMFS also received comment that when trolling for tunas, sharks will sometimes get hooked in the lip when depredating the tuna catch. The commenter felt these sharks should be able to be retained.

Response: NMFS has decided, due to enforcement issues, not to include an

exemption to the circle hook requirement for sharks caught while trolling. Allowing the retention of sharks caught on J-hooks introduces a loophole in the circle hook requirement and is counterproductive to NMFS' intention to reduce dusky shark mortality. If a fisherman wishes to retain sharks caught on J-hooks, they could simply contend that they were "trolling." NMFS' concern is that the only way for enforcement officers to know a shark was caught while trolling would be to witness the catch as it happens. Conversely, an enforcement officer intercepting an angler landing a shark at the dock would have no way of knowing if the shark was caught while trolling or using another fishing method.

Comment 46: NMFS received several comments, including from the SAFMC, and the States of Florida, South Carolina, and North Carolina, suggesting NMFS define the type of circle hook (*e.g.*, non-offset, non-stainless steel) required for Alternative A6a; specifically, the SAFMC and the States of Florida and North Carolina suggested that NMFS specify the use of non-offset and non-stainless steel circle hooks.

Response: NMFS agrees that it would be more effective to specify that non-offset, non-stainless steel circle hooks are required. These hooks reduce the chance of damaging the gut track of sharks if swallowed, and because they are corrodible, will deteriorate and fall out of the jaw of the shark if left in. These two features will reduce post-release mortality of dusky sharks. Additionally, non-offset circle hooks are also currently required to be used in billfish tournaments, and the South Atlantic snapper/grouper fishery, which also requires the use of non-stainless steel hooks. For these reasons, the circle hook measure for recreational fishing has been clarified to require non-offset, non-stainless steel circle hooks to maximize reductions in post-release mortality, and to be consistent with circle hook requirements in other recreational fisheries.

Comment 47: NMFS received comments from the SAFMC and the State of North Carolina supporting the requirement of circle hooks in shark fishing tournaments (Alternative A6c).

Response: NMFS agrees that circle hook use in shark fishing tournaments will be beneficial for dusky sharks for the same reasons they are beneficial in the greater recreational shark fishery. Under Alternative A6d, fishermen fishing for sharks recreationally will be required to get a shark endorsement and will be required to use circle hooks when fishing for sharks whether they are fishing in a tournament or not,

except when using flies or artificial lures. Requiring circle hooks in the greater recreational shark fishery, rather than only in shark tournaments, provides a greater conservation benefit for dusky sharks.

Comment 48: NMFS received a comment from the State of North Carolina requesting that circle hooks not be required to retain, possess, or land sharks if an angler catches a shark when targeting non-shark species. The comment noted that allowing the retention of incidentally caught sharks would prevent dead discards.

Response: While NMFS can understand why it would appear desirable to allow anglers to retain sharks incidentally caught on J-hooks, the agency is concerned that doing so would undermine the enforcement of the circle hook requirement when targeting sharks. If shark anglers were permitted to land sharks incidentally caught on J-hooks, they could continue to fish exclusively with J-hooks and simply claim any shark they catch was caught incidentally. As such, NMFS has determined that requiring the release of all sharks caught on J-hooks is essential to the enforcement of the circle hook requirement.

Comment 49: NMFS received comments suggesting that the circle hook requirement be extended to all HMS recreational fisheries to reduce post-release mortality in all HMS fisheries.

Response: The goal of Amendment 5b is to end overfishing of the dusky shark stock, and requiring the use of circle hooks when fishing for all tunas, billfish, or swordfish would not accomplish this goal. Furthermore, while there is evidence that circle hooks are effective in reducing dusky shark post-release mortality, not all studies have conclusively found that circle hooks significantly reduce post-release mortality for all HMS species across all HMS recreational fisheries. Also, NMFS heard during the public comment period that circle hooks are not appropriate for all fishing styles (e.g., deep drop fishing or trolling). While NMFS encourages anglers to adopt the use of circle hooks in a manner that appropriately contributes to the needed mortality reduction for dusky sharks, the Agency also recognizes that data and the conservation goals of the current action do not warrant a blanket extension of the circle hook requirement to all HMS recreational fisheries at this time.

Comment 50: NMFS received comments requesting that circle hooks only be required on the lines targeting sharks, not all lines that are deployed.

The commenters stated that at times fishermen may have multiple lines deployed, and only some of those lines are specifically targeting sharks.

Response: Under the new circle hook alternative (A6d), HMS permit holders will only be required to use circle hooks when fishing for sharks, and this can be determined by the angler on a line-by-line basis. Circle hooks are required for any line that is targeting sharks. Anglers will be required to release any sharks incidentally caught on lines with J-hooks targeting other species. As such, HMS anglers will have to weigh their desire to use J-hooks against their desire to retain incidentally-caught sharks, and make their hook choices accordingly.

Comment 51: NMFS received a comment requesting the requirement of barbless J-hooks instead of circle hooks for recreational fishermen.

Response: While NMFS encourages anglers to use barbless hooks, which can allow easier releases, be they circle or J-hooks, NMFS does not have information indicating that barbless J-hooks provide better conservation benefits for sharks than do circle hooks. While barbless J-hooks could certainly be removed from a shark's jaw with less damage than a circle hook, barbless J-hooks would still have a higher probability of deep hooking, which is the larger concern for post-release mortality of incidentally caught dusky sharks. As such, NMFS does not believe a requirement to use barbless J-hooks would accomplish the objectives of this action.

Comment 52: NMFS received several comments, including from the Commonwealth of Massachusetts, opposing the circle hook requirement in New England offshore waters given the rare seasonal occurrence of dusky sharks in the region. The commenters stated that tournament catch data collected in Massachusetts from 1987–2014 indicated low dusky interactions off Massachusetts with the majority of shark catch consisting of blue, shortfin mako, and common thresher sharks. Additionally, commenters noted studies that suggest a lack of evidence for reducing deep-hooking of shark species commonly caught in New England waters such as shortfin mako sharks, thresher sharks, and porbeagle sharks. Commenters, including the Commonwealth of Massachusetts, requested that NMFS set a demarcation line if the circle hook requirement is implemented. Some commenters noted a demarcation line in the vicinity of Shinnecock, NY (40°50'25" N.)

extending to the east. Additionally, the Commonwealth of Massachusetts noted a demarcation line extending southeast from the eastern tip of Long Island, NY.

Response: NMFS agrees that measures to reduce dusky shark mortality would have little utility in areas beyond dusky sharks' range. For Alternative A6d, NMFS undertook an analysis of available data to determine the northern extent of the dusky shark range. Based on the analysis, NMFS has determined that, at this time, dusky sharks are not found north of 41°43' N. latitude, located around the southeastern edge of Cape Cod. Although fishermen fishing for and retaining sharks north of this line will need to obtain a shark endorsement, shark fishermen will not need to use circle hooks. This line is somewhat north of some suggestions; however, the line was placed in a location to ensure that all dusky sharks caught in the recreational shark fishery are given the best odds of post-release survival. Dusky shark distribution will be examined periodically, and if the dusky shark's range expands northward (e.g., as a result of climate change or as result of the species rebuilding), the boundary line may be moved in a future regulatory action.

Comment 53: NMFS received comments suggesting that the economic impact of the proposed dusky measures for New England recreational, Charter/Headboat, or Atlantic tunas General category permit holders were not considered. Requiring the release of mako sharks incidentally caught on J-hooks would further negatively impact these permit holders.

Response: NMFS fully analyzed the economic impacts (refer to Chapters 4–7 of the FEIS) and concluded that it expects the economic impacts of the circle hook requirement to be minimal. Sharks that are incidentally caught are by definition not the primary target species of the trip, and thus should not be a major driving decision in a charter client's decision to go on the trip. However, to further minimize the potential impacts outside of the dusky shark's range, NMFS has revised the alternative so that it will exempt anglers fishing north of 41°43' N. latitude from having to use circle hooks to land sharks. This line marks the northernmost range of the dusky shark based on the best available fishery independent data. HMS permit holders fishing north of this line will be permitted to land sharks caught on J-hooks and will not be required to use circle hooks when targeting sharks.

Comment 54: NMFS received comments suggesting that an exemption to the circle hook requirement be made for shortfin mako and thresher sharks. The comments noted that these species are occasionally caught incidentally while trolling for other species with J-

hooks and, although not targeted with J-hooks, are retained because they are a “trophy” catch.

Response: As mentioned in previous comment responses, NMFS has modified its circle hook alternative to exempt shark anglers from the requirement to use circle hooks in New England waters north of 41°43' N. latitude. As such, anglers fishing north of this line will be allowed to retain sharks caught on J-hooks. Shortfin mako and thresher sharks are among the most commonly targeted sharks in the Atlantic. MRIP data in the Mid-Atlantic region, where dusky shark interactions are most frequent, shows that many trips where dusky shark interactions are reported are on trips targeting mako sharks. As such, exempting anglers targeting shortfin mako and thresher sharks from the circle hook requirement would greatly reduce its ability to meet the conservation goals of this action.

F. Commercial Alternatives

Comment 55: Numerous commenters, including the States of North and South Carolina, stated that the requirement to release a shark by cutting the leader no more than three feet from the hook as specified in Alternative B3 should be modified to provide an exemption for situations when the safety of the fishermen is in question. For example, of particular concern were situations when the fishermen are working from a vessel with a high gunwale in heavy seas, or situations where a tight line may recoil back at the fisherman after cutting the line. Some commenters suggested the “three feet or less” language should be removed so that the alternative simply states the leader should be cut as close to the hook as safely possible.

Response: NMFS agrees that there may be times when it is unsafe to cut a leader within three feet of the hook. Each of the conditions and gear attributes described in these comments could reduce the feasibility of cutting the leader three feet or less away from the hook. For these reasons, NMFS has changed the preferred alternative in this final action to require releasing of sharks not to be retained by using a dehooker or by cutting the leader/gangion less than three feet from the hook as safely as practicable. As described below, removal of as much fishing gear as possible, in as safe a manner as possible, should increase post-release survival of sharks while also addressing safety concerns for fishermen onboard the vessel.

Comment 56: Several commenters expressed that NMFS should encourage commercial fishermen to follow the

status quo and not create new specifications or require new gear regarding the release of sharks. Fishermen currently have safe handling and release protocols, they attend safe handling and release workshops on a regular basis, and they carry the necessary gear on the fishing vessel to release all non-target catch.

Response: NMFS agrees that commercial fishermen currently have gear and protocols onboard that specify the handling and safe release of non-target species and bycatch. As explained in the comment below, NMFS prefers not to specify a certain type of dehooker or line cutter as commercial fishermen most likely already have the necessary gear onboard. However, while commercial fishermen are required to release marine mammals, sea turtles, and smalltooth sawfish, and release all HMS that are not retained in a manner that will ensure maximum probability of survival without removing the fish from the water, Alternative B3 specifically addresses all sharks that are not retained, as the identification of sharks is often difficult, especially while sharks are still in the water. Removal of gear is known to increase post-release survival for other species, such as sea turtles and thresher sharks. While NMFS recognizes that hooks may not be removed from sharks due to safety concerns during certain conditions, NMFS encourages commercial fishermen to remove as much gear as safely possible. This could help prevent situations where the sharks' tails become entangled in the gear or the gear becomes wrapped around the sharks' bodies impeding their ability to feed and/or swim. Research on other pelagic species indicates that the more gear that is removed, the higher the post-release survival. Thus, under this alternative, fishermen will be required to release sharks in a manner that removes either all or most of the gear given safe handling and release protocols and gear that commercial fishermen currently possess.

Comment 57: Another commenter stated that using a thresher shark study estimate for reduction in post-release mortality due to reduced trailing gear as a proxy for dusky shark impacts is not appropriate and that dusky-specific estimates are required.

Response: While NMFS agrees it would be ideal to have a dusky-specific estimate to quantify the potential decrease in mortality that would be associated with the removal of gear, current research on this does not exist. In the absence of that research, NMFS feels it is most logical to use research on similar species, such as thresher sharks

and smalltooth sawfish, as well as information for sea turtles and marine mammals, as proxies for estimating mortality reductions, because that currently represents the best available scientific information.

Comment 58: In regard to the requirement to use dehooking devices when releasing sharks, a commenter said NMFS should specifically require use of the “I” type dehooker device instead of the “Z” type device, as the commenter contends the latter is much more difficult and dangerous to use properly.

Response: At this time, NMFS prefers not to specify the type of dehooker fishermen are required to use when releasing sharks. Although different dehooking devices may provide advantages in certain situations, NMFS leaves dehooker type to the discretion of fishermen.

Comment 59: Commenters, including States of North Carolina and Texas, and the SAFMC, generally supported Alternative B9, which requires the use of circle hooks by shark directed permit holders in the bottom longline fishery. The State of South Carolina also supported the alternative, but stated that the alternative should be modified to specifically require the use of non-offset, non-stainless circle hooks. Other commenters also requested that NMFS be more specific about the type of circle hooks, specifically, non-offset, non-stainless steel circle hooks should be required. Another commenter supported Alternative B9 and suggested that such hooks should be required for incidental shark permit holders in addition to directed shark permit holders. Other commenters stated that circle hooks should only be required when targeting small or large coastal sharks, allowing the continued use of J-hooks when targeting non-shark species.

Response: NMFS agrees that requiring circle hooks in the directed bottom longline shark fishery should help reduce the mortality of incidentally caught dusky sharks because individuals will be released in better condition with a better chance of survival. Regarding the suggestion of using non-stainless steel hooks, current regulations already require that bottom longline fishermen use non-stainless steel, corrodible hooks. Regarding the suggestion of using non-offset circle hooks, NMFS disagrees. The pelagic longline fishery is allowed to use some circle hooks that are offset less than 10° in order to allow the hooks to be baited. Because there is overlap between the fishermen using pelagic longline and bottom longline gear and because circle hooks are required in other fisheries and

may have other requirements, to reduce conflict between regulations, NMFS has decided to allow fishermen to choose circle hook offset type at this time.

The intent of the directed bottom longline shark fishery circle hook requirement is to reduce mortality of dusky sharks caught and released on bottom longline, one of the few commercial fisheries that does not have a circle hook requirement. Dusky sharks most often interact with bottom longline gear when the gear is fished in a manner meant to target sharks, as is shown in the large coastal shark and sandbar shark research fisheries. Some of the other non-HMS bottom longline fisheries that do not target sharks require non-stainless steel circle hooks and dehookers such as the South Atlantic snapper-grouper bottom longline fishery and vessels participating in the Gulf of Mexico reef fish fishery when using natural bait. Many of these fishermen possess HMS incidental shark fishing permits (see Table 5.2 in the FEIS), and therefore are most likely already using circle hooks when fishing in a bottom longline fishery and not targeting sharks; as such, any dusky sharks caught in these fisheries would experience the conservation benefit of circle hooks. Therefore, NMFS believes that requiring circle hooks for incidental shark permit holders is not necessary at this time. Directed shark permit holders fishing with bottom longline gear, however, will be required to use circle hooks regardless of the target species to make a clear distinction for the enforcement of the regulation. If directed shark permit holders were not targeting sharks, but fishing with J-hooks and still interacting with sharks, it would make the regulation difficult to enforce.

Comment 60: Other commenters opposed the proposed alternative to implement circle hooks in the shark bottom longline fishery. One commenter stated that when fishing with J-hooks, he has no bycatch of other species, and the J-hook catches the majority of the sharks in the corner or side of the mouth, similar to circle hooks. The commenter noted that with circle hooks, bycatch rates of other non-HMS (snapper, snapper, etc.) rises dramatically no matter what size hook is used. That commenter further stated that in his experience sharks that swallow J-hooks are always sharks that can be kept legally. In addition, that commenter noted that sharks are easier to release on a J-hook than when on a circle hook; when on a J-hook, the sharks tend to release themselves if given enough line slack and are easier to dehook. The commenter is concerned

that sharks caught on circle hooks are harder to release or cut off, and that the added time in releasing the shark could cause more stress on the shark.

Response: NMFS disagrees. Recent research on pelagic longline and rod and reel indicate that circle hooks could reduce post-release mortality by approximately 40–63 percent. If those rates are comparable bottom longline gear, then that mortality reduction could occur in the portion of the bottom longline fishery that is converted from J-hooks to circle hooks (25 percent). Because the bottom longline fishery is observed to interact with hundreds of dusky sharks per year, then this measure is expected to significantly contribute to the overall mortality reduction of 35 percent. Gulack et al., suggests that the typical large J-hook used in commercial shark fishing keeps sharks from easily swallowing the hooks, resulting in no significant difference in shark mortality when compared to circle hooks. However, because circle hook use did not reduce the catchability of sharks compared to J-hooks, the requirement of circle hooks in the shark bottom longline fishery could prevent commercial fishermen from using smaller J-hooks that could be swallowed by sharks. This research also showed that keeping sharks in the water that are not retained would likely increase post-release survival.

In addition, data from the observer program in 2015 indicate that 11 directed shark trips with 16 observed shark hauls resulted in only 22 non-HMS fish caught (3 percent of total catch) and 75 percent of these sets used circle hooks. In 2014, 22 hauls on 14 directed shark trips were observed targeting coastal sharks in the southern Atlantic. During those trips only 11 non-HMS fish were caught (less than 1 percent) and 63.6 percent of these sets used circle hooks. Thus, bycatch of non-target species when using circle hooks does not seem to be a significant issue and would not offset the potential conservation benefit to dusky sharks and other non-target species.

Finally, in terms of removing circle hooks versus J-hooks from sharks, the current dehooking devices required to be carried by bottom longline fishermen are designed to work well for circle hooks when used properly. When the hook is in the jaw, it may be easier to remove a J-hook, but when J-hooks end up in the throat or gut of the animal, they are more difficult to remove than circle hooks.

Comment 61: Numerous commenters expressed support for the relocation protocol in Alternative B6, but several, including the States of North Carolina,

South Carolina, and Texas, and the SAFMC, questioned whether the one nautical mile minimum relocation distance was far enough to effectively avoid a highly migratory species like dusky sharks. Some commenters also stated that the relocation protocol was unenforceable. NMFS received a comment suggesting that a better approach would be to form a working group of fishermen, researchers, non-governmental organizations, and NMFS staff to develop a more scientifically sound, practical approach. This group could also work towards developing strategies to collect and analyze dusky shark interaction data, along with oceanographic data, that could be used to develop predictive models for dusky presence/absence.

Response: HMS pelagic and bottom longline fishermen currently have to relocate one nautical mile when they interact with marine mammals or sea turtles, and bottom longline fishermen need to relocate one nautical mile when they interact with smalltooth sawfish. The decision to have these and gillnet fishermen move one nautical mile if they interact with dusky sharks mirrors the current regulations for marine mammals and sea turtles, which are also pelagic and capable of moving long distances, in the Atlantic HMS pelagic and bottom longline fisheries. These species tend to aggregate along discrete water temperature fronts or near certain bathymetric features, so moving away from these features or water conditions, even relatively short distances (e.g., 1 nm), can reduce the potential for additional interactions. Like dusky sharks, sea turtles, marine mammals, and sawfish can also move large distances in short periods of time; however, the direction of the relocation away from the conditions where an interaction took place is likely more important than the distance alone (e.g., moving 1 nm to a deeper depth would likely have more effect than moving 1 nm along the same depth where an interaction occurred). Based on this information, we expect 1 nm will also be appropriate for dusky sharks, while maintaining consistency with existing relocation regulations for other species and therefore encouraging compliance. We are encouraging fishermen to move more than 1 nm when appropriate given the local conditions as an additional precautionary measure.

Comment 62: One commenter suggested the relocation protocol should also be extended to non-HMS fisheries that also interact with dusky sharks.

Response: As detailed in Section 1.2 of the FEIS, there are very small amounts of dusky shark bycatch in non-

HMS fisheries. Implementing relocation protocols in those fisheries would provide very little conservation benefit for dusky sharks. However, NMFS will work with states and Fishery Management Councils, and Commissions, as appropriate, to suggest commensurate changes in other fisheries that interact with dusky sharks.

Comment 63: A commenter expressed opposition to Alternative B6 on the grounds that the relocation protocol would be too burdensome on longline fishing vessels, and would ultimately require them to move so far away from where they are fishing that it would negatively impact them economically. Conversely, other commenters indicated that commercial fishers already practice a relocation protocol within the fleet and that they actively avoid sharks, such as dusky sharks, as the sharks tend to tear up their gear.

Response: NMFS anticipates that the relocation protocol should have minimal costs to fishermen given it only requires them to move one nautical mile after a set is complete, and this requirement is similar to the requirement already in place for several protected species. Several fishermen commented that many members of the HMS commercial fleet are already practicing dusky shark avoidance so the costs to them should be neutral.

Furthermore, the outlined communications protocol that will be required by this alternative should help many fishermen avoid setting their gear in areas containing dusky shark in the first place. Finally, the costs associated with Alternative B6 should be minimal when compared to other alternatives that were considered (e.g., hotspot closures, closing the pelagic longline fishery, etc.).

Comment 64: A commenter suggested that NMFS and fishermen should collaborate with the U.S. Coast Guard to broadcast the presence of dusky sharks in an area to other vessels to help facilitate the fleet communication and relocation protocol.

Response: Several fishermen commented that many members of the HMS commercial fleet are already practicing dusky shark avoidance as interacting with the sharks tends to tear up their gear. In addition, the availability of satellite phones has allowed the fleet to communicate effectively with one another. Other fisheries have developed more formal protocols for fleet avoidance of certain species, such as yellowtail flounder. However, they use third-party vendors to disseminate such notifications, not the U.S. Coast Guard. If the current communication and relocation protocol

proves to be ineffective, then NMFS can reevaluate a more structured approach in the future. However, at this time, it likely that fishermen would have more immediate information as to where dusky sharks are interacting with fishing gear and are thus the best source of information on dusky presence.

Comment 65: Commenters provided broad support for the addition of a shark identification and safe handling section to the current protected species safe handling workshops under Alternative B5. Some commenters suggested the workshops should also be required of state-licensed commercial shark fishermen, and that opportunities to participate in the workshops should be made available to recreational shark anglers as well.

Response: Both recreational and commercial fishers are welcome to attend the safe handling, release, and identification workshops held by NMFS. NMFS recommends that all fishermen register to check for availability ahead of a workshop, especially if they are not required to take such a workshop. More information on the safe handling, release, and identification workshops can be found at: http://www.nmfs.noaa.gov/sfa/hms/compliance/workshops/protected_species_workshop/requirements.html.

Changes From the Proposed Rule (81 FR 71672; October 18, 2016)

As described above, as a result of public comment and additional analyses, NMFS made changes from the proposed rule, as described below.

1. Circle hook requirement in the recreational shark fishery (§§ 635.4(b)(1), (c)(1), and (c)(5); 635.21 (f)(2), (f)(3), (k)(1), and (k)(2); 635.22(c)(1); 635.71 (d)(22) and (d)(23)). NMFS proposed to require the use of circle hooks by all HMS permit holders fishing for sharks recreationally, which the proposed rule defined as when using natural baits and using wire or heavy (200 lb or greater test) monofilament or fluorocarbon leaders. Based on public comment and updated analyses regarding dusky shark distribution, NMFS modified this measure in three ways: First, the final rule now specifies the type of circle hook required, which is non-offset, non-stainless steel circle hooks; second, the final rule now specifies that this measure only applies south of 41°43' N. latitude, which includes the geographic range of dusky sharks but does apply the requirement to fishermen north of the dusky shark's range; and third, it now removes the gear-based definition of shark fishing. Under the modified measure, all HMS permitted fishermen

within the specified geographic area who wish to fish for or retain sharks must use circle hooks, regardless of hook size or leader material, with limited exceptions when fishing with artificial lures or flies. Artificial flies and lures were excluded because fishing with those gears are not likely to gut-hook sharks, the result that the measure is designed to avoid.

2. Shark endorsement requirement in the recreational shark fishery (§ 635.4(j)(4)). In the proposed rule, NMFS clearly indicated that fishermen could add the shark endorsement to their recreational permit at any time during the fishing year. As a result of public comment, in the final rule, NMFS is also allowing fishermen to remove the shark endorsement from their recreational permit at any time during the fishing year. Removal of the shark endorsement would mean that sharks could no longer be fished for, retained, or landed by persons aboard that vessel.

3. Dusky shark release methods in the pelagic longline fishery (§ 635.21(c)(6)(i)). NMFS proposed the requirement that fishermen with an Atlantic shark limited access permit with pelagic longline gear onboard must release all sharks not being retained using a dehooker or cutting the gangion less than three feet from the hook. During the public comment period, NMFS heard from some commercial fishermen that this requirement could raise safety at sea concerns because gangions can sometimes snap back and hit crew when the gangion is cut while under tension. In response, NMFS has slightly modified the requirement to specify that if the fisherman chooses to cut the gangion rather than use a dehooker, they should cut the gangion less than three feet from the hook, as safely as practicable.

4. Fleet communication and relocation protocol (§ 635.21(c)(6)(ii), (d)(2)(iii), and (g)(5)). NMFS proposed the requirement that fishermen with an Atlantic shark limited access permit using pelagic longline, bottom longline, or gillnet gear that catch a dusky shark must both broadcast the location of the dusky shark over the radio to other fishing vessels in the surrounding area and move at least 1 nmi from the reported location of the dusky shark catch. As a result of public comment that questioned whether 1 nmi was far enough to effectively avoid a highly migratory species like dusky sharks, the final rule still specifies that vessels must move at least 1 nmi but encourages fishermen to move more than 1 nmi when appropriate given the local conditions as an additional

precautionary measure. Additionally, in the regulations, NMFS has clarified that the requirement to broadcast the location of the dusky shark over the radio should be done as soon as practicable, whereas the proposed rule did not specify anything related to timing of the broadcast.

5. Workshop title clarification (§ 635.8(a)). In this final rule, NMFS clarifies that the name of a required workshop is “Safe Handling, Release, and Identification Workshop.” In the proposed rule, this workshop was erroneously titled the “Safe Handling, Release, Disentanglement, and Identification Workshop.” Although this correction was not included in the proposed rule, it is an administrative change and will not have any practical environmental, social, or economic impacts and is included for clarity to the regulated community.

Classification

The Assistant Administrator for Fisheries (AA) determined that Amendment 5b to the 2006 Consolidated HMS FMP is necessary for the conservation and management of Atlantic dusky sharks and that it is consistent with the Magnuson-Stevens Act and other applicable laws.

NMFS prepared an FEIS for Amendment 5b to the 2006 Consolidated HMS FMP. The FEIS was filed with the Environmental Protection Agency on February 17, 2017. A Notice of Availability was published on February 24, 2017 (82 FR 11574). In approving Amendment 5b to the 2006 Consolidated HMS FMP on March 28, 2017, NMFS issued a ROD identifying the selected alternatives. A copy of the ROD is available from the HMS Management Division (see **ADDRESSES**).

This final rule has been determined to be not significant under E.O. 12866.

Paperwork Reduction Act

This final rule contains a collection-of-information requirement subject to the Paperwork Reduction Act (PRA) that has been approved by OMB under control number 0648-0327. Public reporting burden for Atlantic HMS Permit Family of Forms is estimated to average 34 minutes per respondent for initial permit applicants, and 10 minutes for permit renewals, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding these burden estimates or any other aspect of this data collection, including suggestions for reducing the burden, to NMFS (see

ADDRESSES) and by email to OIRA_Submission@omb.eop.gov, or fax to 202-395-7285.

Notwithstanding any other provision of the law, no person is required to respond to, and no person shall be subject to penalty for failure to comply with, a collection of information subject to the requirements of the PRA, unless that collection of information displays a currently valid OMB control number.

Summary of the Final Regulatory Flexibility Analysis

A final regulatory flexibility analysis (FRFA) was prepared for this rule. The FRFA incorporates the initial regulatory flexibility analysis (IRFA), a summary of the significant issues raised by the public comments in response to the IRFA, our responses to those comments, and a summary of the analyses completed to support the action. The full FRFA is available from NMFS (see **ADDRESSES**). A summary is provided below.

A. Statement of the Need for and Objectives of This Final Rule

Section 604(a)(1) of the Regulatory Flexibility Act (RFA) requires a succinct statement of the need for and objectives of the rule. Chapter 1.0 of the Amendment 5b FEIS fully describes the need for and objectives of this final rule. In general, the objective of this final rule is to end overfishing of dusky sharks and to rebuild the stock in the timeframe recommended by the assessment update.

Under the Magnuson-Stevens Act, NMFS must, consistent with ten National Standards, manage fisheries to prevent overfishing while achieving, on a continuing basis, the optimum yield for each fishery. Additionally, any management measures must be consistent with other laws including, but not limited to, NEPA, the ESA, the MMPA, and the CZMA.

B. A Summary of the Significant Issues Raised by the Public Comments in Response to the Initial Regulatory Flexibility Analysis, a Summary of the Agency's Assessment of Such Issues, and a Statement of Any Changes Made in the Rule as a Result of Such Comments

Section 604(a)(2) of the RFA requires a summary of the significant issues raised by the public comments in response to the IRFA, a summary of the assessment of the Agency of such issues, and a statement of any changes made in the rule as a result of such comments. Section 604(a)(3) of the RFA requires a response to any comments filed by the Chief Counsel for Advocacy of the Small

Business Administration in response to the proposed rule, and a statement of any changes made to the proposed rule as a result of the comments. NMFS received many comments on the proposed rule and DEIS during the public comment period. Summarized public comments and the Agency's responses to them, including changes as a result of public comment, are included above. The general economic concerns raised can be found in comments 33, 41, 44, 53, and 63. NMFS did not receive comments specifically on the IRFA. NMFS did not receive any comments filed from the Chief Council for Advocacy in response to the proposed rule.

C. A Description and an Estimate of the Number of Small Entities to Which the Final Rule Would Apply

Section 604(a)(4) of the RFA requires a description and estimate of the number of small entities to which the final rule would apply. For RFA purposes only, NMFS has established a small business size standard for businesses, including their affiliates, whose primary industry is commercial fishing (see 50 CFR 200.2). A business primarily engaged in commercial fishing (NAICS code 11411) is classified as a small business if it is independently owned and operated, is not dominant in its field of operation (including its affiliates), and has combined annual receipts not in excess of \$11 million for all its affiliated operations worldwide. The Small Business Administration (SBA) has established size standards for all other major industry sectors in the U.S., including the scenic and sightseeing transportation (water) sector (NAICS code 487210, for-hire), which includes charter/party boat entities. The Small Business Administration (SBA) has defined a small charter/party boat entity as one with average annual receipts (revenue) of less than \$7.5 million.

This final rule is expected to directly affect commercial pelagic longline, bottom longline, shark gillnet, and recreational shark fishing vessels that possess HMS permits and are actively fishing. For the pelagic longline vessels, these are vessels that possess an Atlantic shark limited access permit, an Atlantic swordfish limited access permit, and an Atlantic Tunas Longline category permit. Because pelagic longline fishermen must hold all three permits in order to fish, for the purposes of this discussion, NMFS will focus on Atlantic Tunas Longline category permit holders. Regarding those entities that would be directly affected by the preferred commercial management

measures, the average annual revenue per active pelagic longline vessel is estimated to be \$187,000 based on the 170 active vessels between 2006 and 2012 that produced an estimated \$31.8 million in revenue annually. The maximum annual revenue for any pelagic longline vessel between 2006 and 2015 was less than \$1.9 million, well below the NMFS small business size standard for commercial fishing businesses of \$11 million. Other non-longline HMS commercial fishing vessels typically generally earn less revenue than pelagic longline vessels. Therefore, NMFS considers all Atlantic HMS commercial permit holders to be small entities (*i.e.*, they are engaged in the business of fish harvesting, are independently owned or operated, are not dominant in their field of operation, and have combined annual receipts not in excess of \$11 million for all its affiliated operations worldwide). The preferred commercial alternatives would apply to the 280 Atlantic tunas Longline category permit holders and 224 directed shark permit holders. Of these 280 permit holders, 136 have Individual Bluefin Quotas (IBQ) shares, although all properly permitted vessels may lease quota through the IBQ system to go commercial pelagic longline fishing.

For the recreational management measures, most commonly, the preferred management measures would only directly apply to small entities that are Charter/Headboat permit holders that provide for-hire trips that target or retain sharks. Other HMS recreational fishing permit holders are considered individuals, not small entities for purposes of the RFA because they are not engaged in commercial fishing. Additionally, while Atlantic Tunas General category and Swordfish General commercial permit holders hold commercial permits and are usually considered small entities, the preferred management measures would only affect them when they are fishing under the recreational regulations for sharks during a registered tournament, and NMFS is not considering them small entities for this rule because they are not engaged in commercial activity during those tournaments.

Vessels with the HMS Charter/Headboat category permit are for-hire vessels. These permit holders can be regarded as small entities for RFA purposes (*i.e.*, they are engaged in the business of fish harvesting, are independently owned or operated, are not dominant in their field of operation, and have average annual revenues of less than \$7.5 million). Overall, the recreational alternatives would impact

the portion of the 3,596 HMS Charter/Headboat permit holders who fish for or retain sharks.

NMFS has determined that the measures in Amendment 5b will not likely directly affect any small organizations or small government jurisdictions defined under RFA, nor will there be disproportionate economic impacts between large and small entities. Furthermore, there will be no disproportionate economic impacts among the universe of vessels based on gear, home port, or vessel length.

More information regarding the description of the fisheries affected, and the categories and number of permit holders, can be found in Chapter 3.0 of the Amendment 5b FEIS.

D. Description of the Projected Reporting, Record-Keeping, and Other Compliance Requirements of the Proposed Rule, Including an Estimate of the Classes of Small Entities Which Would Be Subject to the Requirements of the Report or Record

Section 604(a)(5) of the RFA requires Agencies to describe any new reporting, record-keeping, and other compliance requirements. One of the measures in Amendment 5b will result in reporting, record-keeping, and compliance requirements that may require new Paperwork Reduction Act (PRA) filings and two of the measures would modify compliance requirements. NMFS estimates that the number of small entities that would be subject to these requirements would include the Atlantic tuna Longline category (280), Directed and Incidental Shark Limited Access (224 and 275, respectively), and HMS Charter/Headboat category (3,596) permit holders.

Recreational Alternatives

Alternative A2 will require recreational fishermen targeting shark to obtain a shark endorsement in addition to other existing permit requirements. Obtaining the shark endorsement will be included in the online HMS permit application and renewal processes and will require the applicant to complete a quiz focusing on shark species identification. The applicant will simply need to indicate the desire to obtain the shark endorsement after which he or she will be directed to an online quiz that will take minimal time to complete. Adding the endorsement to the permit and requiring applicants to take the online quiz to obtain the endorsement will require a modification to the existing PRA for the permits.

Commercial Measures Alternatives

Alternative B5 will require completion of shark identification and fishing regulation training as a new part of the Safe Handling and Release Workshops for HMS pelagic longline, bottom longline, and shark gillnet vessel owners and operators that they are already required to take on a 3-year basis. The training course will provide information regarding shark identification and regulations, as well as best practices to avoid interacting with dusky sharks and how to minimize mortality of dusky sharks caught as bycatch. Compliance with this course requirement will be mandatory as a condition for permit renewal. Certificates will be issued to all commercial pelagic longline, bottom longline, and gillnet vessel owners and operators indicating compliance with this requirement, and the certificates will be required for permit renewal.

Alternative B6 will require that all vessels with an Atlantic shark commercial permit and fishing with pelagic longline, bottom longline, or shark gillnet gear abide by a dusky shark fleet communication and relocation protocol. The protocol will require vessels to report the location of dusky shark interactions over the radio as soon as practicable to other pelagic longline, bottom longline, or shark gillnet vessels in the area and that subsequent fishing sets on that fishing trip could be no closer than 1 nautical mile (nm) from where the encounter took place.

E. Description of the Steps the Agency Has Taken To Minimize the Significant Economic Impact on Small Entities Consistent With the Stated Objectives of Applicable Statutes, Including a Statement of the Factual, Policy, and Legal Reasons for Selecting the Alternative Adopted in the Final Rule and the Reason That Each One of the Other Significant Alternatives to the Rule Considered by the Agency Which Affect Small Entities Was Rejected

Section 604(a)(6) of the RFA requires Agencies to describe any alternatives to the preferred alternatives which accomplish the stated objectives and which minimize any significant economic impacts. The implementation of this action should not result in significant adverse economic impacts to individual vessels. These impacts are discussed below and in Chapter 4.0 of the FEIS. Additionally, the Regulatory Flexibility Act (5 U.S.C. 603(c)(1)–(4)) lists four general categories of “significant” alternatives that would assist an agency in the development of significant alternatives. These categories

of alternatives are: (1) Establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) clarification, consolidation, or simplification of compliance and reporting requirements under the rule for such small entities; (3) use of performance rather than design standards; and, (4) exemptions from coverage of the rule for small entities.

In order to meet the objectives of this amendment, consistent with all legal requirements, NMFS cannot exempt small entities or change the reporting requirements only for small entities because all the entities affected are considered small entities. Thus, there are no alternatives discussed that fall under the first and fourth categories described above. Under the third category, "use of performance rather than design standards," NMFS considers Alternative B5, which will provide additional training to pelagic longline, bottom longline, and shark gillnet fishermen, to be a performance standard rather than a design standard. As described below, NMFS analyzed several different alternatives in this proposed rulemaking and provides the rationale for identifying the preferred alternative to achieve the desired objective.

In this rulemaking, NMFS considered two different categories of alternatives. The first category, recreational alternatives, covers seven main alternatives that address various strategies of reducing dusky shark mortality in the recreational fishery. The second category of alternatives, commercial measures, considers nine main alternatives that address various strategies of reducing dusky shark mortality in the commercial fishery.

The potential impacts these alternatives may have on small entities have been analyzed and are discussed in the following sections. The preferred alternatives include: Alternative A2, Alternative A6d, Alternative B3, Alternative B5, Alternative B6, and Alternative B9. The economic impacts that would occur under these preferred alternatives were compared with the other alternatives to determine if economic impacts to small entities could be minimized while still accomplishing the stated objectives of this rule.

1. Recreational Alternatives

Alternative A1

Alternative A1, the no action alternative, would not implement any management measures in the recreational shark fishery to decrease

mortality of dusky sharks, likely resulting in direct, short- and long-term neutral economic impacts. Because there would be no changes to the fishing requirements, there would be no economic impacts on small entities. If more restrictive measures are required in the long-term under MSA or other statutes such as the Endangered Species Act, moderate adverse economic impacts may occur. However, overfishing would continue under this alternative, thus, NMFS does not prefer this alternative at this time.

Alternative A2—Preferred Alternative

Under Alternative A2, a preferred alternative, HMS Angling and Charter/Headboat permit holders would be required to obtain a shark endorsement, which requires completion of a short online shark identification and fishing regulation training course in order to retain sharks. Obtaining the shark endorsement would be included in the online HMS permit application and renewal processes and would require the applicant to complete a training course focusing on shark species identification and fishing regulations. This alternative would likely result in no substantive economic impacts because there would be no additional cost to the applicant and only a small additional investment in time. Obtaining the shark endorsement would be a part of the normal HMS permit application or renewal. The applicant would simply need to indicate the desire to obtain the shark endorsement after which he or she would be directed to a short online training course that would take minimal time to complete. The goal of the training course is to help prevent anglers from landing prohibited or undersized sharks, and thus, help rebuild stocks. Furthermore, the list of shark endorsement holders would allow for more targeted surveys and outreach, likely increasing the reliability of recreational shark catch estimates. This preferred alternative helps achieve the objectives of this rule while minimizing any significant economic impacts on small entities.

Alternative A3

Alternative A3 would have required participants in the recreational shark fishery (Angling and Charter/Headboat permit holders) to carry an approved shark identification placard on board the vessel when fishing for sharks. This alternative would likely result in short- and long-term minor economic impacts. The cost of obtaining a placard, whether by obtaining a pre-printed one or self-printing, would be modest. To comply with the requirement of this alternative,

the angler would need to keep the placard on board the vessel when fishing for sharks and, because carrying other documents such as permits and boat registration is already required, this is unlikely to be a large inconvenience. This alternative would have slightly more economic impacts than Alternative A2 on small entities and would likely be less effective than the training course in Alternative A2.

Alternative A4

Under Alternative A4, NMFS would extend the prohibition on the retention of ridgeback sharks to include the rest of the ridgeback sharks, namely oceanic whitetip, tiger sharks, and smoothhound sharks, all of which are currently allowed to be retained by recreational shark fishermen (HMS Angling and Charter/Headboat permit holders). While this alternative would simplify compliance for the majority of fishermen targeting sharks, it could also potentially have adverse economic impacts for a small subset of fishermen that target oceanic whitetip, tiger, and smoothhound sharks. These adverse impacts would be quite small, however, for oceanic whitetip and tiger sharks. However, based on MRIP data, this alternative could have considerable impacts on fishermen targeting smoothhound sharks. Presumably, state-permitted anglers that do not hold an HMS federal permit are responsible for some of the catch and, for species such as smooth dogfish that are often found almost exclusively in state waters, anglers with only state permit may be responsible for most of the catch. Recreational fishermen with only state-issued permits would still be able to retain smoothhound sharks (those that hold an HMS permit must abide by federal regulations, even in state waters). Thus, Alternative A4 would likely result in both direct short- and long-term, minor adverse economic impacts on HMS Charter/Headboat operators if prohibiting landing of additional shark species reduces demand for fishing charters. While this alternative may have greater economic impacts than Alternative A3, it may be effective at achieving the objective of reducing dusky shark mortality in the recreational fishery.

Alternative A5

Under Alternative A5, the minimum recreational size limit for authorized shark species, except for Atlantic sharpnose, bonnethead, and hammerhead (great, scalloped, and smooth) sharks, would increase from 54 to 89 inches fork length. Under this alternative, increasing the recreational

size limit would likely result in both direct short- and long-term, moderate adverse economic impacts for recreational fishermen, charter/headboat operators, and tournament operators. Because many shark species have a maximum size below an 89-inch size limit, there could be reduced incentive to fish recreationally for sharks due to the decreased potential to legally land these fish. Increasing the minimum size for retention would also impact the way that tournaments and charter vessels operate. While the impacts of an 89-inch fork length minimum size on tournaments awarding points for pelagic sharks may be lessened because these tournament participants target larger sharks, such as shortfin mako, blue, and thresher, that grow to larger than 89 inches fork length, this may not be the case for tournaments targeting smaller sharks. Tournaments that target smaller sharks, especially those that target shark species that do not reach sizes exceeding 89 inches fork length such as blacktip sharks, may be heavily impacted by this alternative. Reduced participation in such tournaments could potentially decrease the amount of monetary prizes offered to winners. Thus, implementation of this management measure could significantly alter the way some tournaments and charter vessels operate, or reduce opportunities to fish for sharks and drastically reduce general interest and demand for recreational shark fishing, which could create adverse economic impacts. For the aforementioned reasons, NMFS does not prefer this alternative at this time.

Alternative A6

Under Alternative A6, circle hooks would be required for either all HMS permit holders fishing recreationally for sharks and all Atlantic HMS permit holders participating in fishing tournaments when targeting or retaining Atlantic sharks.

Alternative A6a

Sub-alternative A6a would require the use of circle hooks by HMS permit holders with a shark endorsement whenever fishing with natural bait and wire or (200-pound test or greater) monofilament or fluorocarbon leader. Relative to the total cost of gear and tackle for a typical fishing trip, the cost associated with switching from J hooks to circle hooks is negligible. Thus, the immediate cost in switching hook type is likely minimal. However, there is conflicting indication that the use of circle hooks may reduce or increase CPUE resulting in lower catch of target species. In the event that CPUE is

reduced, some recreational fishermen may choose not to fish for sharks or to enter tournaments that offer awards for sharks. Additionally, this alternative would also effectively require HMS permit holders with shark endorsements to use circle hooks when fishing for many non-shark species because wire and heavy monofilament leaders are commonly also used when fishing for swordfish, billfish, tuna, wahoo, mackerel, and other marine species. These missed recreational fishing opportunities could result in minor adverse economic impacts in the short- and long-term. Given the effects this alternative would have on HMS permit holders while targeting non-shark species, NMFS does not prefer this alternative at this time.

Alternative A6b

Sub-Alternative A6b is similar to A6a, but instead of requiring circle hooks when deploying natural bait while using a wire or heavy (200-pound test or greater) monofilament or fluorocarbon leader outside of a fishing tournament, it instead requires circle hooks when deploying a 5/0 or greater size hook to fish with natural bait outside of a fishing tournament. This use of the hook size standard to determine if the trip could be targeting sharks may result in more recreational trips requiring circle hooks than under alternative A6a, but many more of those trips might actually not be targeting sharks, but instead other large pelagic fish. The use of a heavy leader would be more correlated with angling activity that is targeting sharks.

Alternative A6c

Sub-Alternative A6c is similar to A6a and A6b, but restricted to requiring the use of circle hooks by all HMS permit holders participating in fishing tournaments that bestow points, prizes, or awards for sharks. This alternative would impact a smaller universe of recreational fishermen, so the adverse impacts are smaller. However, given the limited scope of this requirement, the benefits to reducing dusky shark mortality via the use of circle hooks are also more limited.

Alternative A6d—Preferred Alternative

Sub-Alternative A6d, a preferred alternative, is a new alternative similar to the above sub-alternatives that was formulated based in response to numerous public comments regarding the previously preferred alternative A6a. A6d would require the use of non-offset, non-stainless steel circle hooks by all HMS permit holders with a shark endorsement when fishing for sharks recreationally south of 41°43' N.

latitude, except when fishing with flies or artificial lures. On the one hand, this alternative would have less impact on HMS permit holders as it would limit the circle hook requirement to only those trips in which sharks are the target species, and would limit the requirement to waters south of Cape Cod so that it does not affect HMS permit holders fishing outside the dusky sharks known range. On the other hand, it would likely affect more HMS permit holders south of Cape Cod as fewer permit holders would be discouraged from acquiring the shark endorsement to avoid the circle hook requirement when fishing with wire or heavy monofilament or fluorocarbon leaders for non-shark species. Overall, the new alternative A6d is expected to have minor adverse economic impacts in the short- and long-term. However, A6d is the preferred alternative as it would restrict impacts to recreational fishing trips targeting sharks within the range of the dusky shark, and minimize unintended impacts that are not needed to meet the objectives of this rulemaking.

Alternative A7

Alternative A7 would prohibit HMS permit holders from retaining any shark species. Recreational fishermen may still fish for and target authorized shark species for catch and release. The large number of fishermen who already practice catch and release and the catch and release shark fishing tournaments currently operating would not be impacted. However, prohibiting retention of sharks could have major impacts on fishing behaviors and activity of other recreational shark fishermen and reduce their demand for charter/headboat trips. Only allowing catch and release of authorized sharks in the recreational fishery could impact some fishermen that retain sharks recreationally and tournaments that award points for landing sharks. Thus, prohibiting retention of Atlantic sharks in the recreational shark fisheries could drastically alter the nature of recreational shark fishing and reduce incentives to fish for sharks.

Additionally, with reduced incentive to fish for sharks, this could negatively impact profits for the HMS Charter/Headboat industry. Because there could be major impacts to the recreational shark fisheries from this management measure, Alternative A7 would likely have direct short- and long-term, moderate adverse economic impacts on small business entities.

2. Commercial Alternatives

Alternative B1

Under Alternative B1, NMFS would not implement any measures to reduce dusky shark mortality in the commercial shark or HMS fisheries. Because no management measures would be implemented under this alternative, NMFS would expect fishing practices to remain the same and economic impacts to be neutral in the short-term. Dusky sharks are a prohibited species and fishermen are not allowed to harvest this species. Thus, even if dusky sharks continue to experience overfishing and the abundance declines as a result of this alternative, there would not be any economic impacts on the fishery in the short-term. If more restrictive measures are required in the long-term under MSA or other statutes such as the Endangered Species Act, moderate adverse economic impacts may occur.

Alternative B2

Under Alternative B2, HMS commercial fishermen would be limited to 750 hooks per pelagic longline set with no more than 800 assembled gangions onboard the vessel at any time. Based on average number of hooks per pelagic longline set data, the hook restriction in this alternative could have neutral economic impacts on fishermen targeting bigeye tuna, mixed tuna species, and mixed HMS species, because the average number of hooks used on pelagic longline sets targeting these species is slightly above or below the limit considered in this alternative. This alternative would likely have adverse economic impacts on fishermen targeting dolphin fish, because these fishermen on average use 1,056 hooks per set. If NMFS implemented this alternative, fishermen targeting dolphin fish with pelagic longline gear would have to reduce their number of hooks by approximately 30 percent per set, which may result in a similar percent reduction in set revenue or could result in increased operating costs if fishermen decide to offset the limited number of hooks with more fishing sets. Overall, Alternative B2 would be expected to have short- and long-term minor adverse economic impacts on the pelagic longline fishery.

Alternative B3—Preferred Alternative

Under Alternative B3, a preferred alternative, HMS commercial fishermen must release all sharks that are not being boarded or retained by using a dehooker, or by cutting the gangion no more than three feet from the hook. This alternative would have neutral to adverse economic impacts on

commercial shark fishermen using pelagic longline gear. Currently, fishermen are required to use a dehooking device if a protected species is caught. This alternative would require this procedure to be used on all sharks that would not be retained, or fishermen would have to cut the gangion to release the shark. Currently, it is common practice in the pelagic longline fishery to release sharks that are not going to be retained (especially larger sharks) by cutting the gangion, but they usually do not cut the gangion so only 3 feet remain, so there might be a slight learning curve. Using a dehooker to release sharks in the pelagic longline fishery is a less common practice, therefore, there may be more of a learning curve that would make using this technique more time consuming and making fishing operations less efficient. Although this may be an initial issue, NMFS expects that these inefficiencies would be minimal and that fishermen would become adept in using a dehooker to release sharks over time given they are all adept at using a dehooker to release protected species. Thus, Alternative B3 would be expected to have short- and long-term neutral economic impacts on the pelagic longline fishery.

Alternative B4

Under Alternative B4, NMFS considered various dusky shark hotspot closures for vessels fishing with pelagic longline gear. The hotspot closures considered are the same areas that were analyzed in Draft Amendment 5 and the A5b Predraft. These hotspot closure alternatives are located where increased levels of pelagic longline interactions with dusky sharks had been identified based on HMS Logbook data. During the months that hotspot closures are effective, Atlantic shark commercial permit holders (directed or incidental) would not be able to fish with pelagic longline gear in these areas.

Alternative B4a

This alternative would define a rectangular area in a portion of the existing Charleston Bump time/area closure area, and prohibit the use of pelagic longline gear by all vessels during the month of May in that area. This alternative is expected to have moderate short- and long-term direct adverse economic impacts on 46 vessels that have historically fished in this Charleston Bump area during the month of May. This closure would result in the loss of approximately \$15,250 in gross revenues per year per vessel assuming no redistribution of effort outside of the closed area.

However, it is likely that some of the vessels that would be impacted by this hotspot closure would redistribute their effort to other fishing areas. Based on natural breaks in the percentage of sets vessels made inside and outside of this alternative's hotspot closure area, NMFS estimated that if a vessel historically made less than 40 percent of its sets in the hotspot closure area, it would likely redistribute all of its effort. If a vessel made more than 40 percent but less than 75 percent of its sets in the hotspot closure area, it would likely redistribute 50 percent of its effort impacted by the hotspot closure area to other areas. Finally, if a vessel made more than 75 percent of its sets solely within the hotspot closure area, NMFS assumed the vessel would not likely shift its effort to other areas. Based on these individually calculated redistribution rates, the percentage of fishing in other areas during the gear restriction time period, the percentage of fishing in other areas during the hotspot closure time period, and the catch per unit effort for each vessel in each statistical area, NMFS estimated the potential landings associated with redistributed effort associated with fishing sets displaced by the hotspot closure area. The net loss in fishing revenues as a result of the Charleston Bump Hotspot May closure after considering likely redistribution of effort is estimated to be \$8,300 per vessel per year. Alternative B4a would result in moderate short- and long-term adverse economic impacts as a result of restricting pelagic longline vessels from fishing in the Charleston Bump Hotspot May area, thus causing decreased revenues and increased costs associated with fishing in potentially more distant waters if vessel operators redistribute their effort.

Alternative B4b

This alternative would prohibit the use of pelagic longline gear in the vicinity of the "Hatteras Shelf" area of the Cape Hatteras Special Research Area during the month of May where elevated levels of dusky shark interactions have been reported. This alternative is expected to have moderate short- and long-term direct adverse economic impacts on 42 vessels that have historically fished in this Hatteras Shelf Hotspot area during the month of May. The average annual revenue per vessel from 2008 through 2014 from all fishing sets made in this hotspot closure area has been approximately \$9,980 during the month of May, assuming that fishing effort does not move to other areas. However, it is likely that some of the vessels that would be impacted by this hotspot closure would redistribute

their effort to other fishing areas. The net impact of the Hatteras Shelf Hotspot May closure on fishing revenues after considering likely redistribution of effort is estimated to be \$5,990 per vessel per year. Alternative B4b would result in moderate adverse economic impacts as a result of restricting pelagic longline vessels from fishing in the Hatteras Shelf Hotspot May area, thus causing decreased revenues and increased costs associated with fishing in potentially more distant waters if vessel operators redistribute their effort.

Alternative B4c

This alternative would prohibit the use of pelagic longline gear in the vicinity of the "Hatteras Shelf" area of the Cape Hatteras Special Research Area during the month of June where elevated levels of dusky shark interactions have been reported.

This alternative is expected to have moderate short- and long-term direct adverse economic impacts on 37 vessels that have historically fished in this Hatteras Shelf Hotspot area during the month of June. The average annual revenue from 2008 through 2014 from all fishing sets made in this hotspot closure area has been approximately \$7,640 per vessel during the month of June, assuming that fishing effort does not move to other areas. However, it is likely that some of the vessels that would be impacted by this hotspot closure would redistribute their effort to other fishing areas. The net impact of the Hatteras Shelf Hotspot June closure on fishing revenues after considering likely redistribution of effort is estimated to be \$4,010 per vessel per year. Alternative B4c would result in moderate adverse economic impacts as a result of restricting pelagic longline vessels from fishing in the Hatteras Shelf Hotspot June area, thus causing decreased revenues and increased costs associated with fishing in potentially more distant waters if vessel operators redistribute their effort.

Alternative B4d

This alternative would prohibit the use of pelagic longline gear in the vicinity of the "Hatteras Shelf" area of the Cape Hatteras Special Research Area during the month of November where elevated levels of dusky shark interactions have been reported. This alternative is expected to have minor short- and long-term direct adverse economic impacts on 23 vessels that have historically fished in this Hatteras Shelf Hotspot area during the month of November. The average annual revenue from 2008 through 2014 from all fishing sets made in this hotspot closure area

has been approximately \$5,230 per vessel during the month of November, assuming that fishing effort does not move to other areas. However, it is likely that some of the vessels that would be impacted by this hotspot closure would redistribute their effort to other fishing areas. The net impact of the Hatteras Shelf Hotspot November closure on fishing revenues after considering likely redistribution of effort is estimated to be \$3,540 per vessel per year. Alternative B4d would result in minor adverse economic impacts as a result of restricting pelagic longline vessels from fishing in the Hatteras Shelf Hotspot November area, thus causing decreased revenues and increased costs associated with fishing in potentially more distant waters if vessel operators redistribute their effort.

Alternative B4e

This alternative would prohibit the use of pelagic longline gear by all U.S. flagged-vessels permitted to fish for HMS in the three distinct closures in the vicinity of the Mid-Atlantic Canyons during the month of October where elevated levels of dusky shark interactions have been reported. This alternative is expected to have moderate short- and long-term direct adverse economic impacts on 64 vessels that have historically fished in this Canyons Hotspot October area. The average annual revenue from 2008 through 2014 from all fishing sets made in this hotspot closure area has been approximately \$9,950 per vessel during the month of October, assuming that fishing effort does not move to other areas. However, it is likely that some of the vessels that would be impacted by this hotspot closure would redistribute their effort to other fishing areas. The net impact of the Canyons Hotspot October closure on fishing revenues after considering likely redistribution of effort is estimated to be \$3,720 per vessel per year. Alternative B4e would result in moderate adverse economic impacts as a result of restricting pelagic longline vessels from fishing in the Canyons Hotspot October area, thus causing decreased revenues and increased costs associated with fishing in potentially more distant waters if vessel operators redistribute their effort.

Alternative B4f

This alternative would prohibit the use of pelagic longline gear by all U.S. flagged-vessels permitted to fish for HMS in July in an area adjacent to the existing Northeastern U.S. closure which is currently effective for the month of June, where elevated levels of dusky shark interactions have been

reported. This alternative is expected to have moderate short- and long-term direct adverse economic impacts on 35 vessels that have historically fished in this Southern Georges Banks Hotspot area during the month of July. The average annual revenue from 2008 through 2014 from all fishing sets made in this hotspot closure area has been approximately \$14,230 per vessel during the month of July, assuming that fishing effort does not move to other areas. However, it is likely that some of the vessels that would be impacted by this hotspot closure would redistribute their effort to other fishing areas. The net impact of the Southern Georges Banks Hotspot July closure on fishing revenues after considering likely redistribution of effort is estimated to be \$8,290 per vessel per year. Alternative B4f would result in moderate adverse economic impacts as a result of restricting longline vessels from fishing in the Southern Georges Banks Hotspot July area, thus causing decreased revenues and increased costs associated with fishing in potentially more distant waters if vessel operators redistribute their effort.

Alternative B4g

This alternative would prohibit the use of pelagic longline gear by all U.S. flagged-vessels permitted to fish for HMS in August in an area adjacent to the existing Northeastern U.S. closure, which is currently effective for the month of June, where elevated levels of dusky shark interactions have been reported. This alternative is expected to have moderate short- and long-term direct adverse economic impacts on 35 vessels that have historically fished in this Southern Georges Banks Hotspot area during the month of August. The average annual revenue from 2008 through 2014 from all fishing sets made in this hotspot closure area has been approximately \$12,260 per vessel during the month of August, assuming that fishing effort does not move to other areas. However, it is likely that some of the vessels that would be impacted by this hotspot closure would redistribute their effort to other fishing areas. The net impact of the Southern Georges Banks Hotspot August closure on fishing revenues after considering likely redistribution of effort is estimated to be \$5,990 per vessel per year. Alternative B4g would result in moderate adverse economic impacts as a result of restricting pelagic longline vessels from fishing in the Southern Georges Banks Hotspot August area, thus causing decreased revenues and increased costs associated with fishing

in potentially more distant waters if vessel operators redistribute their effort.

Alternative B4h

This alternative would prohibit the use of pelagic longline gear by all U.S. flagged-vessels permitted to fish for HMS in a portion of the existing Charleston Bump time/area closure during the month of November where elevated levels of dusky shark interactions have been reported. This alternative is expected to have minor short- and long-term direct adverse economic impacts on 32 vessels that have historically fished in this Charleston Bump Hotspot area during the month of November. The average annual revenue from 2008 through 2014 from all fishing sets made in this hotspot closure area has been approximately \$7,030 per vessel during the month of November, assuming that fishing effort does not move to other areas. However, it is likely that some of the vessels that would be impacted by this hotspot closure would redistribute their effort to other fishing areas. The net impact of the Charleston Bump Hotspot November closure on fishing revenues after considering likely redistribution of effort is estimated to be \$2,720 per vessel per year. Alternative B4h would result in minor adverse social and economic impacts as a result of restricting pelagic longline vessels from fishing in the Charleston Bump Hotspot November area, thus causing decreased revenues and increased costs associated with fishing in potentially more distant waters if vessel operators redistribute their effort.

Alternative B4i

This alternative would provide strong incentives to avoid dusky sharks and to reduce interactions by modifying fishing behavior. Participants in the pelagic longline fleet have requested increased individual accountability within the fishery in light of several management issues facing the fishery (e.g., bluefin tuna, dusky sharks). NMFS first developed the use of conditional access under Draft Amendment 7, in part due to the public comments and feedback received regarding the original dusky hotspot closures proposed in Draft Amendment 5. This approach would address the fact that, according to HMS logbook data, relatively few vessels have consistently accounted for the majority of the dusky shark interactions. Conditional access would not impact the entire fleet for interactions made by a relatively small proportion of vessels. Therefore, depending on the metrics selected and fishery participant behavior, this alternative could have

adverse socioeconomic effects on certain vessels that are both poor avoiders of dusky sharks and are non-compliant with the regulations. NMFS would analyze the socioeconomic impact by using similar fishing effort redistribution proposed in Draft Amendment 7. Overall, the adverse socioeconomic effects of dusky shark hotspot closures are expected to be less if a conditional access alternative is implemented because some vessels would still be able to access and fish the hotspot closures. This alternative would have neutral to beneficial effects for vessels that are still authorized to fish in these regions, as they would not be held accountable for the behavior of other individuals and would not have to change their current fishing operations.

Alternative B4j

This alternative would implement bycatch caps on dusky shark interactions in hotspot areas. Under this alternative, NMFS would allow pelagic longline vessels limited access to high dusky shark interaction areas with an observer onboard while limiting the number of dusky shark interactions that could occur in these areas. Once the dusky shark bycatch cap for an area is reached, that area would close until the end of the three-year bycatch cap period. This alternative could lead to adverse economic impacts by reducing annual revenue from fishing in the various hot spot areas depending on the number of hotspots where bycatch cap limits are reached, the timing of those potential closures during the year, and the amount of effort redistribution that occurs after the closures. In addition to direct impacts to vessels owners, operators, and crew members, this alternative would have moderate, adverse indirect impacts in the short- and long-term on fish dealers, processors, bait/gear suppliers, and other shore-based businesses impacted by reduced fishing opportunities for pelagic longline vessel owners that would have fished in the hotspot area.

Alternative B5—Preferred Alternative

Alternative B5, a preferred alternative, would provide additional training to pelagic longline, bottom longline, and shark gillnet vessel owners and operators as a new part of all Safe Handling and Release Workshops. The course would be taught in conjunction with the current Protected Species Safe Handling, Release, and Identification workshops that HMS pelagic longline, bottom longline, and shark gillnet vessel owners and operators are already required to attend. The training course would provide information regarding

shark identification and regulations, as well as best practices to avoid interacting with dusky sharks and how to minimize mortality of dusky sharks caught as bycatch. This training course would provide targeted outreach on dusky shark identification and regulations, which should decrease interactions with dusky sharks. This alternative would have neutral economic impacts because the fishermen are already required to attend a workshop, incur some travel costs, and would not be fishing while taking attending the workshop. Given the neutral economic impacts and this alternative's potential to decrease dusky interactions and mortality, NMFS prefers this alternative.

Alternative B6—Preferred Alternative

The economic impacts associated with Alternative B6, which would increase dusky shark outreach and awareness through development of additional commercial fishery outreach materials and establish a communication and fishing set relocation protocol for HMS commercial fishermen following interactions with dusky sharks and increase outreach to the pelagic longline fleet, are anticipated to be neutral. These requirements would not cause a substantial change to current fishing operations, but have the potential to help fishermen become more adept in avoiding dusky sharks. If fishermen become better at avoiding dusky sharks, there is the possibility that target catch could increase. On the other hand, the requirement to move the subsequent fishing set one nautical mile from where a previous dusky shark interaction occurred could move fishermen away from areas where they would prefer to fish and it could increase fuel usage and fuel costs. Given the neutral economic impacts of this alternative and its expectation to decrease dusky shark interactions, NMFS prefers this alternative.

Alternative B7

NMFS would seek, through collaboration with the affected states and the ASMFC, to extend the end date of the existing state shark closure from July 15 to July 31. Currently, the states of Virginia, Maryland, Delaware, and New Jersey have a state-water commercial shark closure from May 15 to July 15. In 2014, 621 lb dw of aggregated LCS and 669 lb dw of hammerhead sharks were landed by commercial fishermen in Virginia, Maryland, and New Jersey from July 15 to July 31. Based on 2014 ex-vessel prices, the annual gross revenues loss

for aggregated LCS and hammerhead shark meat to the regional fleet in revenues due to an extended closure date would be \$847, while the shark fins would be \$207. Thus the total loss annual gross revenue for aggregated LCS and hammerhead sharks would be \$1,054. Extending this closure by 16 days could cause a reduction of commercial fishing opportunity, likely resulting in minor adverse economic impacts due to reduced opportunities to harvest aggregated LCS and hammerhead sharks. In the long-term, this reduction would be neutral since fishermen would be able to adapt to the new opening date.

Alternative B8

Under Alternative B8, NMFS would remove pelagic longline gear as an authorized gear for Atlantic HMS. All commercial fishing with pelagic longline gear for HMS in the Atlantic, Gulf of Mexico, and Caribbean would be prohibited. This would greatly reduce fishing opportunities for pelagic longline fishing vessel owners. Prohibiting the use of pelagic longline fishing gear would result in direct and indirect, major adverse economic impacts in the short- and long-term for pelagic longline vessel owners, operators, and crew.

Between 2008 and 2014, 168 different vessels reported using pelagic longline fishing gear in Atlantic HMS Logbooks. Average annual revenues were estimated to be approximately \$34,322,983 per year based on HMS logbook records, bluefin tuna dealer reports, and the eDealer database. In 2014, there were 110 active pelagic longline vessels which produced approximately \$33,293,118 in revenues. The 2014 landings value is in line with the 2008 to 2014 average. Therefore, NMFS expects future revenues forgone revenue on a per vessel basis to be approximately \$309,000 per year based on 110 vessels generating an estimated \$34 million in revenues per year. This displacement of fishery revenues would likely cause business closures for a majority of these pelagic longline vessel owners. Given the magnitude of the economic impact of this alternative, it is not a preferred alternative.

Alternative B9—Preferred Alternative

Under Alternative B9, NMFS would require the use of circle hooks by all HMS directed shark permit holders in the bottom longline fishery. This requirement is expected to reduce the mortality associated with catch of dusky shark in the bottom longline fishery.

There is negligible cost associated with switch from J-hooks to circle

hooks. However, there is some indication that the use of circle hooks may reduce catch per unit effort (CPUE) resulting in lower catch of target species. To the extent that CPUE is reduced, some commercial fishermen using BLL gear may experience reduced landings and associated revenue with the use of circle hooks. This alternative would require the 224 vessels that hold a shark directed limited access permit as of 2015 to use circle hooks. However, 104 of the 224 vessels have an Atlantic tunas longline permit, which requires fishermen to use circle hooks with pelagic longline gear. Thus, those vessels would already possess and use circle hooks. The remaining 120 permit holders would be required to use circle hooks when using bottom longline gear. Given the low switching costs from J-hooks to circle hooks and the potential to reduce dusky shark mortality, NMFS prefers this alternative.

Alternative B10

Under this alternative, NMFS would annually allocate a certain number of allowable dusky shark interactions to each individual shark directed or incidental limited access permit holder in the HMS pelagic and bottom longline fisheries. These allocations would be transferable between permit holders. When each vessel's individual dusky shark bycatch quota (IDQ) is reached, the vessel would no longer be authorized to fish for HMS for the remainder of the year. The concept of this alternative is similar to the Individual Bluefin Tuna Quota (IBQ) Program implemented in Amendment 7 to the 2006 Consolidated HMS FMP (79 FR 71510), which established individual quotas for bluefin tuna bycatch in the pelagic longline fishery and authorized retention and sale of such bycatch. We would not, however, anticipate authorizing retention and sale of dusky sharks, because they remain a prohibited species.

The goal of this alternative would be to provide strong individual incentives to reduce dusky shark interactions while providing flexibility for vessels to continue to operate in the fishery, however, several unique issues associated with dusky sharks would make these goals difficult to achieve.

In order to achieve the mortality reductions based upon the 2016 SEDAR 21 dusky shark assessment update, the number of dusky shark interactions may need to be substantially reduced. NMFS expects the allocations to each vessel may be extremely low and highly inaccurate/uncertain. It is not clear that an IDQ system without a supportable scientific basis would actually reduce

interactions with dusky sharks. To the extent that any reduction actually occurred, some vessels would be constrained by the amount of individual quota they are allocated and this could reduce their annual revenue. If a pelagic longline vessel interacts with dusky sharks early in the year and uses their full IDQ allocation, they may be unable to continue fishing with pelagic longline or bottom longline gear for the rest of the year if they are unable to lease quota from other IDQ holders. This would result in reduced revenues and potential cash flow issues for these small businesses.

If vessel owners are only allocated a very low amount of IDQ, it is very unlikely that an active trading market for IDQs will emerge. The initial allocations could be insufficient for many vessels to maintain their current levels of fishing activity and they may not be able to find IDQs to lease or have insufficient capital to lease a sufficient amount of IDQs. Some vessel owners may view the risk of exceeding their IDQ allocations and the associated costs of acquiring additional quota to outweigh the potential profit from fishing, so they may opt to not continue participating in the fishery.

The annual transaction costs associated with matching lessor and lessees, the costs associated with drafting agreements, and the uncertainty vessel owners would face regarding quota availability would reduce some of the economic benefits associated with leasing quota and fishing.

There would also be increased costs associated with bottom longline vessels obtaining and installing EM and VMS units. Some bottom longline vessel owners might have to consider obtaining new vessels if their current vessels cannot be equipped with EM and VMS. There would be increased costs associated with VMS reporting of dusky interactions. Some fishermen would also need to ship EM hard drives after each trip and they may need to consider acquiring extra hard drives to avoid not having one available when they want to go on a subsequent trip.

Given the challenges in properly identifying dusky sharks, every shark would need to be brought on board the vessel and ensure an accurate picture of identifying features was taken by the EM cameras. Such handling would likely increase dusky shark and other shark species mortality and thus not fully achieve the stated objectives of this rule. This alternative is also unlikely to minimize the economic impact of this rule as compared to the preferred alternatives given the potential for

reduced fishing revenues, monitoring equipment costs, and transaction costs.

Small Entity Compliance Guide

Section 212 of the Small Business Regulatory Enforcement Fairness Act of 1996 states that, for each rule or group of related rules for which an agency is required to prepare a FRFA, the agency shall publish one or more guides to assist small entities in complying with the rule, and shall designate such publications as “small entity compliance guides.” The agency shall explain the actions a small entity is required to take to comply with a rule or group of rules. Copies of this final rule and the compliance guide are available upon request from NMFS (see ADDRESSES). Copies of the compliance guide will be available from the Highly Migratory Species Management Division Web site at <http://www.nmfs.noaa.gov/sfa/hms/>.

List of Subjects

15 CFR Part 902

Reporting and recordkeeping requirements.

50 CFR Part 635

Fisheries, Fishing, Fishing vessels, Foreign relations, Imports, Penalties, Reporting and recordkeeping requirements, Treaties.

Dated: March 30, 2017.

Alan D. Risenhoover,

Acting Deputy Assistant Administrator for Regulatory Programs, National Marine Fisheries Service.

For reasons set out in the preamble, NMFS amends 15 CFR part 902 and 50 CFR part 635 as follows:

Title 15—Commerce and Foreign Trade

PART 902—NOAA INFORMATION COLLECTION REQUIREMENTS UNDER THE PAPERWORK REDUCTION ACT: OMB CONTROL NUMBERS

■ 1. The authority citation for part 902 continues to read as follows:

Authority: 44 U.S.C. 3501 *et seq.*

■ 2. In § 902.1, in the table in paragraph (b) under “50 CFR”, add entries for “635.2”, “635.4(c)”, and “635.4(j)” in numerical order to read as follows:

§ 902.1 OMB control numbers assigned pursuant to the Paperwork Reduction Act.

* * * * *

(b) * * *

| CFR part or section where the information collection requirement is located | Current OMB control No. (all numbers begin with 0648–) |
|---|--|
| 50 CFR: | |
| * * * | * * |
| 635.2 | –0327 |
| * * * | * * |
| 635.4(c) | –0327 |
| * * * | * * |
| 635.4(j) | –0327 |
| * * * | * * |
| * * * | * * |

Title 50—Wildlife and Fisheries

PART 635—ATLANTIC HIGHLY MIGRATORY SPECIES

■ 3. The authority citation for part 635 continues to read as follows:

Authority: 16 U.S.C. 971 *et seq.*; 16 U.S.C. 1801 *et seq.*

■ 4. In § 635.2:

■ a. Remove the definition of “Protected species safe handling, release, and identification workshop certificate”; and

■ b. Add new definitions for “Safe handling, release, and identification workshop certificate” and “Shark endorsement” in alphabetical order to read as follows:

§ 635.2 Definitions.

* * * * *

Safe handling, release, and identification workshop certificate means the document issued by NMFS, or its designee, indicating that the person named on the certificate has successfully completed the Atlantic HMS safe handling, release, and identification workshop.

* * * * *

Shark endorsement means an authorization added to an HMS Angling, HMS Charter/Headboat, Atlantic Tunas General, or Swordfish General Commercial permit that allows for the retention of authorized Atlantic sharks consistent with all other applicable regulations in this part.

* * * * *

■ 5. In § 635.4, revise paragraphs (b)(1), (c)(1), and (c)(2), and add paragraphs (c)(5) and (j)(4) to read as follows:

§ 635.4 Permits and fees.

* * * * *

(b) * * *

(1) The owner of a charter boat or headboat used to fish for, retain,

possess, or land any Atlantic HMS must obtain an HMS Charter/Headboat permit. In order to fish for, retain, possess, or land Atlantic sharks, the owner must have a valid shark endorsement issued by NMFS. A vessel issued an HMS Charter/Headboat permit for a fishing year shall not be issued an HMS Angling permit, a Swordfish General Commercial permit, or an Atlantic Tunas permit in any category for that same fishing year, regardless of a change in the vessel’s ownership.

* * * * *

(c) * * *

(1) The owner of any vessel used to fish recreationally for Atlantic HMS or on which Atlantic HMS are retained or possessed recreationally, must obtain an HMS Angling permit, except as provided in paragraph (c)(2) of this section. In order to fish for, retain, possess, or land Atlantic sharks, the owner must have a valid shark endorsement issued by NMFS. Atlantic HMS caught, retained, possessed, or landed by persons on board vessels with an HMS Angling permit may not be sold or transferred to any person for a commercial purpose. A vessel issued an HMS Angling permit for a fishing year shall not be issued an HMS Charter/Headboat permit, a Swordfish General Commercial permit, or an Atlantic Tunas permit in any category for that same fishing year, regardless of a change in the vessel’s ownership.

(2) A vessel with a valid Atlantic Tunas General category permit issued under paragraph (d) of this section or with a valid Swordfish General Commercial permit issued under paragraph (f) of this section may fish in a recreational HMS fishing tournament if the vessel has registered for, paid an entry fee to, and is fishing under the rules of a tournament that has registered with NMFS’ HMS Management Division as required under § 635.5(d). When a vessel issued a valid Atlantic Tunas General category permit or a valid Swordfish General Commercial permit is fishing in such a tournament, such vessel must comply with HMS Angling category regulations, except as provided in paragraphs (c)(3) through (c)(5) of this section.

* * * * *

(5) In order to fish for, retain, possess, or land sharks, the owner of a vessel fishing in a registered recreational HMS fishing tournament and issued either an Atlantic Tunas General category or Swordfish General Commercial permit must have a shark endorsement.

* * * * *

(j) * * *

(4) In order to obtain a shark endorsement to fish for, retain, possess, or land sharks, a vessel owner with a vessel fishing in a registered recreational HMS fishing tournament and issued or required to be issued either an Atlantic Tunas General category or Swordfish General Commercial permit or a vessel owner of a vessel issued or required to be issued an HMS Angling or HMS Charter/Headboat permit must take a shark endorsement online quiz. After completion of the quiz, NMFS will issue the vessel owner a new or revised permit with the shark endorsement for the vessel. The vessel owner can take the quiz at any time during the fishing year, but his or her vessel may not leave the dock on a trip during which sharks will be fished for, retained, possessed, or landed unless a new or revised permit with a shark endorsement has been issued by NMFS for the vessel. The addition of a shark endorsement to the permit does not constitute a permit category change and does not change the timing considerations for permit category changes specified in paragraph (j)(3) of this section. Vessel owners may request that NMFS remove the shark endorsement from the permit at any time. If NMFS removes the shark endorsement from the vessel permit, no person on board the vessel may fish for, retain, possess, or land sharks.

* * * * *

■ 6. In § 635.8, revise paragraphs (a), (c)(2), (c)(3), (c)(5), (c)(6), and (c)(7) as follows:

§ 635.8 Workshops.

(a) *Safe handling, release, and identification workshops.* (1) Both the owner and operator of a vessel that fishes with Longline or gillnet gear must be certified by NMFS, or its designee, as having completed a safe handling, release, and identification workshop before a shark or swordfish limited access vessel permit, pursuant to § 635.4(e) and (f), is renewed. For the purposes of this section, it is a rebuttable presumption that a vessel fishes with longline or gillnet gear if: Longline or gillnet gear is onboard the vessel; logbook reports indicate that longline or gillnet gear was used on at least one trip in the preceding year; or, in the case of a permit transfer to new owners that occurred less than a year ago, logbook reports indicate that longline or gillnet gear was used on at least one trip since the permit transfer.

(2) NMFS, or its designee, will issue a safe handling, release, and identification workshop certificate to

any person who completes a safe handling, release, and identification workshop. If an owner owns multiple vessels, NMFS will issue a certificate for each vessel that the owner owns upon successful completion of one workshop. An owner who is also an operator will be issued multiple certificates, one as the owner of the vessel and one as the operator.

(3) The owner of a vessel that fishes with longline or gillnet gear, as specified in paragraph (a)(1) of this section, is required to possess on board the vessel a valid safe handling, release, and identification workshop certificate issued to that vessel owner. A copy of a valid safe handling, release, and identification workshop certificate issued to the vessel owner for a vessel that fishes with longline or gillnet gear must be included in the application package to renew or obtain a shark or swordfish limited access permit.

(4) An operator that fishes with longline or gillnet gear as specified in paragraph (a)(1) of this section must possess on board the vessel a valid safe handling, release, and identification workshop certificate issued to that operator, in addition to a certificate issued to the vessel owner.

* * * * *

(c) * * *

(2) If a vessel fishes with longline or gillnet gear as described in paragraph (a)(1) of this section, the vessel owner may not renew a shark or swordfish limited access permit, issued pursuant to § 635.4(e) or (f), without submitting a valid safe handling, release, and identification workshop certificate with the permit renewal application.

(3) A vessel that fishes with longline or gillnet gear as described in paragraph (a)(1) of this section and that has been, or should be, issued a valid limited access permit pursuant to § 635.4(e) or (f), may not fish unless a valid safe handling, release, and identification workshop certificate has been issued to both the owner and operator of that vessel.

* * * * *

(5) A vessel owner, operator, shark dealer, proxy for a shark dealer, or participant who is issued either a safe handling, release, and identification workshop certificate or an Atlantic shark identification workshop certificate may not transfer that certificate to another person.

(6) Vessel owners issued a valid safe handling, release, and identification workshop certificate may request, in the application for permit transfer per § 635.4(l)(2), additional safe handling, release, and identification workshop

certificates for additional vessels that they own. Shark dealers may request from NMFS additional Atlantic shark identification workshop certificates for additional places of business authorized to receive sharks that they own as long as they, and not a proxy, were issued the certificate. All certificates must be renewed prior to the date of expiration on the certificate.

(7) To receive the safe handling, release, and identification workshop certificate or Atlantic shark identification workshop certificate, persons required to attend the workshop must first show a copy of their HMS permit, as well as proof of identification to NMFS or NMFS' designee at the workshop. If a permit holder is a corporation, partnership, association, or any other entity, the individual attending on behalf of the permit holder must show proof that he or she is the permit holder's agent and provide a copy of the HMS permit to NMFS or NMFS' designee at the workshop. For proxies attending on behalf of a shark dealer, the proxy must have documentation from the shark dealer acknowledging that the proxy is attending the workshop on behalf of the Atlantic shark dealer and must show a copy of the Atlantic shark dealer permit to NMFS or NMFS' designee at the workshop.

■ 7. In § 635.19, revise paragraph (d) to read as follows:

§ 635.19 Authorized gears.

* * * * *

(d) *Sharks.* (1) No person may possess a shark without a permit issued under § 635.4.

(2) No person issued a Federal Atlantic commercial shark permit under § 635.4 may possess a shark taken by any gear other than rod and reel, handline, bandit gear, longline, or gillnet, except that smoothhound sharks may be retained incidentally while fishing with trawl gear subject to the restrictions specified in § 635.24(a)(7).

(3) No person issued an HMS Commercial Caribbean Small Boat permit may possess a shark taken from the U.S. Caribbean, as defined at § 622.2 of this chapter, by any gear other than with rod and reel, handline or bandit gear.

(4) Persons on a vessel issued a permit with a shark endorsement under § 635.4 may possess a shark only if the shark was taken by rod and reel or handline, except that persons on a vessel issued both an HMS Charter/Headboat permit (with or without a shark endorsement) and a Federal Atlantic commercial shark permit may possess sharks taken by rod and reel, handline, bandit gear, longline,

or gillnet if the vessel is engaged in a non for-hire fishing trip and the commercial shark fishery is open pursuant to § 635.28(b).

* * * * *

■ 8. In § 635.21:

■ a. Add paragraph (c)(6);

■ b. Revise the introductory text for paragraph (d)(2);

■ c. Add paragraphs (d)(2)(iii) and (d)(4);

■ d. Revise paragraph (f); and

■ e. Add paragraphs (g)(5) and (k).

The additions and revisions read as follows:

§ 635.21 Gear operation and deployment restrictions.

* * * * *

(c) * * *

(6) The owner or operator of a vessel permitted or required to be permitted under this part and that has pelagic longline gear on board must undertake the following shark bycatch mitigation measures:

(i) *Handling and release requirements.* As safely as practicable, any hooked or entangled sharks that are not being retained must be released using dehookers or line clippers or cutters. If using a line clipper or cutter, the gangion must be cut so that less than three feet (91.4 cm) of line remains attached to the hook.

(ii) *Fleet communication and relocation protocol.* The owner or operator of any vessel that catches a dusky shark must, as quickly as practicable, broadcast the location of the dusky shark interaction over the radio to other fishing vessels in the surrounding area. Subsequent fishing sets by that vessel on that trip must be at least 1 nmi from the reported location of the dusky shark catch. Vessel owners and operators are encouraged to move the vessel further away than 1 nmi if conditions (e.g., water temperature, depth, tide, etc.) indicate that moving a greater distance is warranted to avoid additional dusky shark interactions.

(d) * * *

(2) The operator of a vessel required to be permitted under this part and that has bottom longline gear on board must undertake the following bycatch mitigation measures:

* * * * *

(iii) *Fleet communication and relocation protocol.* The owner or operator of any vessel that catches a dusky shark must, as quickly as practicable, broadcast the location of the dusky shark interaction over the radio to other fishing vessels in the surrounding area. Subsequent fishing sets by that vessel on that trip must be at least 1 nmi

from the reported location of the dusky shark catch. Vessel owners and operators are encouraged to move the vessel further away than 1 nmi if conditions (e.g., water temperature, depth, tide, etc.) indicate that moving a greater distance is warranted to avoid additional dusky shark interactions.

* * * * *

(4) Vessels that have bottom longline gear on board and that have been issued, or are required to have been issued, a directed shark limited access permit under § 635.4(e) must have only circle hooks as defined at § 635.2 on board.

* * * * *

(f) *Rod and reel.* (1) Persons who have been issued or are required to be issued a permit under this part and who are participating in a "tournament," as defined in § 635.2, that bestows points, prizes, or awards for Atlantic billfish must deploy only non-offset circle hooks when using natural bait or natural bait/artificial lure combinations, and may not deploy a J-hook or an offset circle hook in combination with natural bait or a natural bait/artificial lure combination.

(2) A person on board a vessel that has been issued or is required to be issued a permit with a shark endorsement under this part and who is participating in an HMS registered tournament that bestows points, prizes, or awards for Atlantic sharks must deploy only non-offset, corrodible circle hooks when fishing for, retaining, possessing, or landing sharks south of 41°43' N. latitude, except when fishing with flies or artificial lures. Any shark caught south of 41°43' N. latitude on non-circle hooks must be released, unless the shark was caught when fishing with flies or artificial lures.

(3) A person on board a vessel that has been issued or is required to be issued an HMS Angling permit with a shark endorsement or an HMS Charter/Headboat permit with a shark endorsement must deploy only non-offset, corrodible circle hooks when fishing for, retaining, possessing, or landing sharks south of 41°43' N. latitude, except when fishing with flies or artificial lures. Any shark caught south of 41°43' N. latitude on non-circle hooks must be released, unless the shark was caught when fishing with flies or artificial lures.

(g) * * *

(5) *Fleet communication and relocation protocol.* The owner or operator of any vessel issued or required to be issued a Federal Atlantic commercial shark limited access permit that catches a dusky shark must, as quickly as practicable, broadcast the

location of the dusky shark interaction over the radio to other fishing vessels in the surrounding area. Subsequent fishing sets by that vessel that trip must be at least 1 nmi from the reported location of the dusky shark catch. Vessel owners and operators are encouraged to move the vessel further away than 1 nmi if conditions (e.g., water temperature, depth, tide, etc.) indicate that moving a greater distance is warranted to avoid additional dusky shark interactions.

* * * * *

(k) *Handline.* (1) A person on board a vessel that has been issued or is required to be issued a permit with a shark endorsement under this part and who is participating in an HMS registered tournament that bestows points, prizes, or awards for Atlantic sharks must deploy only non-offset, corrodible circle hooks when fishing for, retaining, possessing, or landing sharks south of 41°43' N. latitude, except when fishing with flies or artificial lures. Any shark caught south of 41°43' N. latitude on non-circle hooks must be released, unless the shark was caught when fishing with flies or artificial lures.

(2) A person on board a vessel that has been issued or is required to be issued an HMS Angling permit with a shark endorsement or a person on board a vessel with an HMS Charter/Headboat permit with a shark endorsement must deploy only non-offset, corrodible circle hooks when fishing for, retaining, possessing, or landing sharks south of 41°43' N. latitude, except when fishing with flies or artificial lures. Any shark caught south of 41°43' N. latitude on non-circle hooks must be released, unless the shark was caught when fishing with flies or artificial lures.

■ 9. In § 635.22, revise paragraph (c)(1) to read as follows:

§ 635.22 Recreational retention limits.

(c) * * *

(1) The recreational retention limit for sharks applies to any person who fishes in any manner, except to persons aboard a vessel that has been issued a Federal Atlantic commercial shark vessel permit under § 635.4. The retention limit can change depending on the species being caught and the size limit under which they are being caught as specified under § 635.20(e). If a commercial Atlantic shark quota is closed under § 635.28, the recreational retention limit for sharks and no sale provision in paragraph (a) of this section may be applied to persons aboard a vessel issued a Federal Atlantic commercial shark vessel permit under § 635.4, only if that vessel has also been issued an HMS Charter/Headboat permit with a shark

endorsement under § 635.4 and is engaged in a for-hire fishing trip. A person on board a vessel that has been issued or is required to be issued a permit with a shark endorsement under § 635.4 may be required to use non-offset, corrodible circle hooks as specified in § 635.21(f) and (k) in order to retain sharks per the retention limits specified in this section.

* * * * *

■ 10. In § 635.71, revise paragraphs (a)(50) through (52), and add paragraphs (d)(21) through (d)(26) to read as follows:

§ 635.71 Prohibitions.

* * * * *

(a) * * *

(50) Fish without a NMFS safe handling, release, and identification workshop certificate, as required in § 635.8.

(51) Fish without having on board the vessel a valid safe handling, release, and identification workshop certificate issued to the vessel owner and operator as required in § 635.8.

(52) Falsify a NMFS safe handling, release, and identification workshop certificate or a NMFS Atlantic shark identification workshop certificate as specified at § 635.8.

* * * * *

(d) * * *

(21) Fish for, retain, possess, or land sharks without a shark endorsement, as specified in § 635.4(b) and (c).

(22) Except when fishing only with flies or artificial lures, fish for, retain, possess, or land sharks south of 41°43' N. latitude without deploying non-offset, corrodible circle hooks when fishing at a registered recreational HMS fishing tournament that has awards or prizes for sharks, as specified in § 635.21(f) and (k).

(23) Except when fishing only with flies or artificial lures, fish for, retain, possess, or land sharks south of 41°43' N. latitude without deploying non-offset, corrodible circle hooks when issued an Atlantic HMS Angling permit or HMS Charter/Headboat permit with a shark endorsement, as specified in § 635.21(f) and (k).

(24) Release sharks with more than 3 feet (91.4 cm) of trailing gear, as specified in § 635.21(c)(6).

(25) Fail to follow the fleet communication and relocation protocol for dusky sharks as specified at § 635.21(c)(6), (d)(2), and (g)(5).

(26) Deploy bottom longline gear without circle hooks, or have on board both bottom longline gear and non-circle hooks, as specified at § 635.21(d)(4).

* * * * *

[FR Doc. 2017-06591 Filed 4-3-17; 8:45 am]

BILLING CODE 3510-22-P



Atlantic Coastal Cooperative Statistics Program

1050 N. Highland Street, Suite 200A-N | Arlington, VA 22201

703.842.0780 | 703.842.0779 (fax) | www.accsp.org

Atlantic Coastal Cooperative Statistics Program Coordinating Council

In-person Meeting

May 10th, 2017 | 11:00 am

The Westin Alexandria, 400 Courthouse Square, Alexandria, VA

Calendar Link:

https://safis.accsp.org:8443/accsp_prod/f?p=550:15:5951162874401::NO:15:P15_CAL_ID_1:1852

DRAFT AGENDA

1. Welcome/Introductions – Coordinating Council Chair R. Boyles
2. Public Comment – R. Boyles
3. Committee Consent – R. Boyles
 - a. Approval of Agenda (Attachment I) – **ACTION**
 - b. Approval of Minutes from October 2016 (Attachment II) – **ACTION**
4. ACCSP Status Report
 - a. Program Status – M. Cahall
 - b. Committee Updates – P. Campfield
5. Review and Consider Approval of 2017 Request for Proposals – M. Cahall (Attachment III) – **ACTION**
6. Other Business
7. Adjourn – R. Boyles



Atlantic Coastal Cooperative Statistics Program

1050 N. Highland Street, Suite 200A-N | Arlington, VA 22201

703.842.0780 | 703.842.0779 (fax) | www.accsp.org

Atlantic Coastal Cooperative Statistics Program Coordinating Council Meeting

October 26th, 2016

Harborside Hotel, 55 West Street, Bar Harbor, ME

https://safis.accsp.org:8443/accsp_prod/f?p=550:15:15680582875545::NO:15:P15_CAL_ID_1:1766

DRAFT MEETING MINUTES

COMMITTEE MEMBERS IN ATTENDANCE

| Name | Partner | Phone | Email |
|--------------------------|---------|----------------|--|
| Mark Alexander | CT DEEP | (860) 434-6043 | mark.alexander@ct.gov |
| Tom Baum | NJ DFW | (609) 748-2020 | tom.baum@dep.nj.gov |
| Bob Beal | ASMFC | (703) 842-0740 | rbeal@asmfc.org |
| Deirdre Boelke (Proxy) | NEFMC | (978) 465-0492 | dboelke@nefmc.org |
| Robert Boyles (Chair) | SC DNR | (843) 953-9304 | boylesr@dnr.sc.gov |
| John Carmichael | SAFMC | (843) 571-4366 | john.carmichael@safmc.net |
| Joe Cimino | VMRC | (757) 247-2237 | joe.cimino@mrc.virginia.gov |
| John Clark (Proxy) | DE DFW | (302) 739-9108 | john.clark@state.de.us |
| Gordon Colvin (Proxy) | NOAA | (240) 357-4524 | gordon.colvin@noaa.gov |
| Michelle Duval (Proxy) | NC DMF | (252) 808-8011 | michelle.duval@ncdenr.gov |
| Jim Estes (Proxy) | FL FWCC | (850) 617-9622 | jim.estes@myfwc.com |
| Lynn Fegley (Vice Chair) | MD DNR | (410) 260-8285 | lynn.fegley@maryland.gov |
| Martin Gary | PRFC | (804) 224-7148 | martingary.prfc@gmail.com |
| Patrick Geer | GA DNR | (912) 264-7218 | pat.geer@dnr.state.ga.us |
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Committee Members Not in Attendance: B. King (DC FWD), C. Moore (MAFMC)

Others in Attendance

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| Name | Title | Partner | Phone | Email |
|-----------------|------------------------------|---------|----------------|--|
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Welcome and Introductions (Chair Boyles)

The Atlantic Coastal Cooperative Statistics Program Coordinating Council Meeting of the Atlantic States Marine Fisheries Commission convened in the Stotesbury Grand Ballroom of the Bar Harbor Club, Harborside Hotel, Bar Harbor, Maine, October 26, 2016, and was called to order at 8:00 o'clock a.m. by Chairman Robert H. Boyles, Jr.

Review and Approve Agenda (R. Boyles) – Attachment I

CHAIRMAN ROBERT H. BOYLES, JR.: My name is Robert Boyles; I am the Chair of the ACCSP Coordinating Council. I would like to call to order the meeting of the Coordinating Council. The first item is to review and approve the agenda that was distributed. Are there any additions to the agenda? I did have one. Mark Alexander requested an item be placed on new business, so Mark we'll get to you. I hear feedback, as well. Cheri.

MS. CHERI PATTERSON: I was wondering if this could be sent to everybody, so that we are looking at the same thing in regards to how the operations and the advisors ranked.

CHAIRMAN BOYLES: Yes, we've got that in the slides, so sure. Any other items to be added to the agenda. Okay, seeing none; the agenda will be approved by consent.

Public Comment

Now is the time in the agenda for public comment. I'm not aware of anyone who has requested to address the Coordinating Council.

Review and Approve August Meeting Minutes (R. Boyles) – Attachment II

We will move on and review and approve the August meeting minutes, also, which were included in your briefing materials. Are there any additions or corrections to those minutes? Seeing none; those minutes are approved by consent. Now that takes us down to the Status Report; Mike.

ACCSP Status Report (M. Cahall)

- **Program Updates**

MR. MIKE CAHALL: Good morning, everyone. We're going to go ahead and start with the SAFIS. We've been doing a lot of work with that system. I'll start with the swipe card reporting. There are two versions of the system; they are both at this point up and running. We had some significant technical issues with the Maine tool, in part, because it is demanding more of the system.

But I think they've all been resolved at this point, so we have the Maine swipe card and Massachusetts swipe card systems are up and running and collecting data. There still remains an outstanding issue with the state versus federal reporting in the swipe cards, but that has been remanded to our Commercial Technical Committee, and hopefully, we'll have a recommendation on a good compromise there, so that we don't have the reporting requirements impinging on one another.

We have been running a SAFIS redesign project, partly funded by Saltonstall-Kennedy funding. The vision document for the redesign has been approved by our Information Systems (IS) Committee. The initial system review, which was conducted by Tom Hoopes under contract to us, has been completed, and we've distributed it to a lot of our program partners for comments. That will soon be going to our IS Committee for the recommendations to be approved and then integrated into the redesign process.

We're going to be submitting funding for the redesign from FIS, so that that, hopefully, will not be coming out of the ACFCMA or FIN pots for ACCSP. We continue to work very diligently with GARFO, and that project, I would say, is probably going about as quickly as we could have expected it to. There are a lot of hurdles that we still have to jump over in order to get it accomplished.

But we have biweekly planning meetings and discussions, and we're doing things like a capacity analysis, how much data actually is processed at GARFO, vice how much data are we capable of processing now? We always have additional capacity built into our systems, mostly because we're never 100 percent sure how much data we're going to end up processing; even things like how much data is passed back and forth across to the internet, and how much disc storage capacity is available and those sorts of things.

We, also, will be having a contractor from GARFO -- in fact, there will be two -- one to help support the redesign effort of the system and the other to begin working on universal electronic trip report numbers. Part of the linchpin for the new systems is a universal trip report that can be automatically generated and attached to any of the different modules that would be used in fisheries- dependent reporting.

Once this is stood up, then the modules for SAFIS will be asking this piece of software to uniquely stamp the initial trip report, and then distribute it to all of the other associated reports as they are generated. This is a critical component of the next generation of fisheries-dependent reporting. Those two contractors will be coming online, we hope, fairly soon, to the data warehouse.

Our new query interface has been released. A lot of your staff folks are beginning to get used to our new look and feel, and we're working with them to make sure that nothing is lost in the translation. I know that many of your folks are dependent on our confidential data interface for quota and compliance monitoring; and we're trying diligently to make sure that those have our first priority.

I believe we're well on our way to having most of those dealt with. We are working on some tweaks to the non-confidential interface. We've had a tester team of close to ten people that have been working with my folks on our non-confidential interface, and just about when we were ready to release it, some additional concerns about data shopping were raised.

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We had a long conference call yesterday to see if we can't resolve those. I believe we've come to a consensus on the best way to do that; which means that our non-confidential query interface can be turned on, probably next week. We're also looking at how we are going to be able to provide better early data for stock assessments.

We recognize that the deadlines always get tighter; that everybody wants the data quicker, and we're looking at what is the reality of our ability to be able to provide those data reasonably accurately, and at the same time being able to meet the deadlines. It is not just a matter of us providing data. For example, if we provide the raw landings and trip reporting data, those typically on the northeast would go then to the Science Center. Then the Science Center has post processing that they perform that takes anywhere from a week to ten days to two weeks.

All of those have to be factored in, so that in the coming year, when we have these data requests come in, we're going to be a lot better prepared to be able to provide a realistic timeline on how long it will take us to provide those data. We got into a little trouble with that last year, and we just wanted to make absolutely sure.

One of the longstanding issues has always been how are we going to validate our datasets against others? We've had some problems where folks will go to the GARFO website and then to our website, and then maybe to yet another; and they come up with different numbers. This kicked off a series of discussions about a month ago for us to take a look at exactly how these numbers are being derived.

It turns out that the numbers that are being used by GARFO and the Northeast Science Center all comes from us. They start with SAFIS data and then there is some post processing. When we set up a test query, where we all used exactly the same parameters, we got exactly the same numbers. That was very encouraging.

I think it's a significant step forward in looking at the differences in the data that we're presenting to the public which, as many of you know, has been an ongoing problem. The tricky part is now making sure that we're all speaking to the public with the same language, and that it is clearly understood.

The example that I'll cite is the quota monitoring, that's provided through the GARFO website, uses SAFIS data. They take a date landed as their parameter, because the reports are all due by midnight on Tuesday, and then they typically will wait a couple days, and they will generate the quota report base on all of the landings that occurred by that date.

If you wait another week, and then come to ACCSP and ask for the data again, all those late reports will be in the numbers. In a couple of places where we looked where we had issues with the numbers, it turned out that what we had were the late reports, and that the GARFO report remained static for a week. They generate that report every week.

Those are the kinds of things now we have to kind of work though, and make clear to everyone that potentially one view is a snapshot, a point in time. Another view might be near real time, where you're looking at more current data and that would account for a lot of the differences that we see. I am going to go ahead and let Geoff take the Access Point Angler Intercept Survey (APAIS) update.

MR. GEOFF WHITE: This is a good opportunity to say just a thank you to all of the states and Marine Recreational Information Program (MRIP) for the support and the activity that has occurred related

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to APAIS this year. Sitting at this point one year ago, there was a lot of curiosity about what was going to happen, how smoothly the transition of state connect of APAIS was going to go.

We couldn't have done it without the buy-in and support and efforts of all of you. I'm thrilled to be able to sit here and say, it is going well. We are definitely on track. I thank all of you for that. We are very excited about the transition and the implementation not going maybe without issues, but with things that were expected and we were able to work through. This partnership is definitely paying off. We had support from many of the states to learn what to do, as well as the Gulf Commission and their data processing.

At this point in the year, we've had three conference calls on the Wave Reports with the states. There has been a much greater level of interaction, and we just finished a Wave meeting last week where we had everybody in person. The data collection is on track with where the overall numbers were last year.

That is approximately 40,000 intercepts to date, and we're on track to reach about the 50,000 that we expected for the year. With that, I'm just giddy, in fact. It really has been amazing. We could not have done it without the amount of effort that all the states have put into this. At this point, we're not only able to keep up with the data entry in our deadlines to MRIP and NOAA Fisheries for the deliverables, but we're already planning the 2017 changes and adjustments to what need to occur.

I think the biggest one that you may have heard is the social economic add-on survey. This happens once every five years or so, and in fact, thank MRIP specifically on this one. That was supposed to occur on the Atlantic in 2016, and they decided to say, let's get through the state conduct and do that in 2017.

We're planning to ramp that in and get that to occur. The Gulf of Mexico is doing the SEA survey, socio-economic add-on survey. They are doing that this year, and they are on track. I am pleased with how that is going. Moving on to another piece, and again, it is the focus of a State Director's meeting in August.

MRIP definitely heard the need about that and ACCSP, we've had a bunch of conference calls and group efforts on how to work on outreach and address issues in for-hire refusals. That's partly APAIS. It is beyond that in terms of VTRs for-hire survey, overall interactions. But the communications team at MRIP and ACCSP drafted up a for-hire discussion guide.

We discussed it last week with all of the states, and we were able to come up with a lot of feedback on what are the most important things contributing to data collection problems on headboats, and what are the most important things that are contributing to issues with the charterboats.

There was some variation, but there were some common themes about improvements to the core of APAIS, whether it was the site registry, and the state involvement is helping that or whether it's the industry perspective or the anglers themselves. There were some state variation, but as we sort through those discussions and feedback and continue to work with Gordon Colvin, Dave Bard and the MRIP team, I think it's moving forward really well.

One of the good partnership issues again, is it was kind of a joint effort of here is what is seen at the federal level. Is that confirmed by the states? There are some resources that MRIP has and has

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offered up; whether that is printing outreach materials or participating in discussions at the state level. We were looking for feedback on what the states would be open towards, or what the best approaches might be to incorporate that partnership and moving forward to get additional data; as the survey and the time goes on. The focus on the data, the partnership moving forward, has really been outstanding. The goal is, again, to develop some joint materials to move forward this winter, when the for-hire season is a little less active on the Atlantic Coast.

MR. CAHALL: Do you have any questions about any of our program updates?

MR. PATRICK KELIHER: Mike, thanks for that update. Could you go back to the slide on the swipe card, please?

MR. CAHALL: Certainly.

MR. KELIHER: You had put up there a redesign. Could you just give a little bit more detail on the redesign?

MR. CAHALL: Certainly. Fundamentally, SAFIS, I describe it as if you take a child's building block set and you have the multi-colors, and you stack the pieces on top of one another, which is kind of how SAFIS looks right now. It's old, the system was originally deployed in 2004 and the base database design has been modified as time goes by, and the applications have been updated based on different requirements that we get or changes in the reporting requirements.

What we really need to do is do a step back, take a comprehensive look at the system today, identify reporting needs that it doesn't meet now and also step back from a technical standpoint, to look at the design and see what we need to do to bring it into compliance with a clean design practice.

When you have a system that gets old, you go, well, we'll make this work this way and we'll make that work this other way; and so you end up with something that in hindsight if you had stepped back and designed it from the get go, you would have a cleaner design. There might be some changes in the way that your database structures look and things like that.

The primary overhaul to the end users almost certainly will be in the online tools. The tablet reporting tools won't require significant changes, other than somewhere in a background for the federal initially. The federal reporting tools will likely grab that universal trip identifier. We haven't even worked out how that is going to work yet but the IS Committee are working on what the business rules need to look like.

But the plan here is that the online tool, we know it needs an overhaul, the online dealer and trip reporting tool. The tablet tools likely won't change very much, if at all, because the way that they communicate back with the database won't require significant changes to those tools. We've got a lot of money and time and effort invested in them, and I get it. We're concerned about making significant adjustments to those.

MR. KELIHER: I guess what I was concerned about with the redesign is how it may relate back to the swipe card and the interface with the swipe card. Swipe card is up and running. As you know, we had some initial problems. We had some problems mid-stride as we went live. I think there is a lot more work to do there. At some point I do want to have a conversation about, as we move forward with

expanding the swipe card whether there should be a broader RFP to bring more people into the fold. For us, when we go live with the swipe card, customer service was really key. It wasn't bad. It could have been better, I think, from the contractor. Those are the things that I want to make sure we're addressing as we move forward. But the link between the two, it sounds like you're thinking about those links, so that is really where I was going here.

MR. CAHALL: Any other questions; Wilson.

DR. WILSON LANEY: We had what I thought was a very interesting discussion yesterday in the South Atlantic State/Federal Management Board meeting about quota monitoring for cobia in particular, and how those numbers are derived by the Southeast Fisheries Science Center, using the MRIP estimates and the headboat estimates.

What I was wondering is, which set of numbers ultimately winds up in the ACCSP Data Warehouse? That may be a question with regard to northeast region, as well. I don't know what the Northeast Fisheries Science Center does with those numbers. But if a member of the public who is interested in a particular species and the quota monitoring for that species wants to see the numbers that go into that total, where do they go? Do they have to go to the Science Center or do they have to go to the ACCSP Data Warehouse?

MR. CAHALL: I think, at this point, they would have to go to two different places. We should have the Vessel Trip Reports (VTRs) for cobia in our Data Warehouse. The MRIP estimates would have to come from MRIP at this point. Certainly, as we move forward with cobia, and I heard about this discussion and I've been rattling it around in my brain about, how can we help here?

I think, certainly, if that is a problem we can certainly work on, I don't see why we wouldn't be able to potentially consolidate the different data sources together. But I also think that we have to keep in mind that the for-hire estimates are done in waves, and so what we may have is VTRs that are coming in, especially as we move forward with electronic trip reporting. They may be coming in real-time or near-real-time coupled with scanned VTRs; then coupled with the for-hire estimates; in order to get your total numbers.

I think it is going to be dicey at the beginning, as we start trying to work through the processes. Now if reporting requirements change or that species ends up being reported via logbooks or something, then we would be able to provide more definitive numbers. But certainly, I think, if that board wants to request that we put that on our list of things to do, we absolutely can. We would be happy to work with everybody to make sure we can pull those numbers together for you.

CHAIRMAN BOYLES: Any other questions on program updates from Mike or Geoff? Okay, seeing none; Mike, you want to do committee updates?

MR. CAHALL: I'm going to turn that over to the Chair of the Operations Committee.

- **Committee Updates**

MR. PATRICK A. CAMPFIELD: Good morning, everyone. I am going to start with the Operations and Advisory Committees. They had their fall meeting about a month ago in St. Petersburg. The focus of that meeting, as it often is in the fall, was to score and rank the proposals submitted to the FY17 RFP. There were 14 proposals overall, in both the maintenance and new categories; including the ACCSP

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Administrative Grant Proposal. The total funding request was over 3.8 million for an available 3.35 million. There was some trimming that needed to be done. We also revisited briefly the work that an RFP Workgroup needs to do to discuss potential changes to the FY18 proposal, specifically perhaps reweighting the different modules, in terms of catch and effort, bio sampling, bycatch sampling; as well as social and economic data collection.

That is work that we will continue and hopefully have prepared for next year's RFP. Moving on to the Bycatch Committee, they continue to work hard on the bycatch prioritization matrix. Testing has been completed in the redesign of the matrix, and notifications have gone out for partners to submit information to complete the matrix.

Please make sure that your staff is contributing to this. Heather has been doing a great job in communicating with all the partners on the Bycatch Panel, and they will have a deadline coming up the second week of December, to submit partner input; and then they will review this at their in-person meeting in February.

The Biological Review Panel will have a conference call coming up here in November. They will discuss the herring biological project, as well as an update of the biological matrix; and they will meet together with the Bycatch Panel in February, to hopefully further those matrices along. The IS Committee will also have a conference call in November.

Their Change Management Board had their first meeting and focused on three changes, including issues with multiple VTRs. As Mike touched on, that is becoming a new venture for ACCSP. They also continued work on issuing permits to corporations and to individuals and discussed a disposition display, in terms of catch disposition. Those are the brief committee updates.

The Universe of Electronic Reporting Efforts on the Atlantic Coast Presentation (M. Cahall)

CHAIRMAN BOYLES: Questions for Pat? Seeing none; we'll roll on into -- can I tee this up for a moment, Mike? I think it was a conversation that Vice-Chair Fegley and I were having some time ago. Sometimes I fail to pay attention to the really important details on things like electronic monitoring and reporting efforts.

Lynn and I were talking several months ago about how it would be nice to have, kind of in one sock, an overview of electronic monitoring, quite selfishly and parochially, because it would help get me up to speed on this. We had talked to Mike, and Mike readily agreed to kind of give us a survey of the universe. This was a result of a conversation Lynn and I had, and I'm certainly looking forward to it; so with that, Mike.

MR. CAHALL: I think what I want to draw at the very beginning is the distinction between electronic reporting and electronic monitoring. The electronic monitoring is broadly defined as the video monitoring efforts that are ongoing, and mostly in pilot form. There are a couple of programs that are running right now.

But we didn't actually cover those directly, because there is no ACCSP standard yet for electronic monitoring. That is on the list of things to do for the Commercial Technical Committee. With reference, for example, to the SAFIS redesign; we know we have to have hooks to attach those electronic monitoring reports or videos to the trip reports. We didn't touch on that per se, but it is not broadly in

place right now on the east coast. There are a lot of research efforts ongoing on the west coast, especially in the Alaska region. I'll talk a little bit about why electronic reporting. I think that the reasons for doing this are pretty well understood. One of the very first benefits that occurred when the NERO, now GARFO, went online with electronic dealer reporting was immediately, the issues that you run into with paper went away.

You would receive codes you couldn't read; you would receive incorrectly manually entered codes on those pieces of paper. You have immediate upfront data validation, because of your electronic interface, so you cannot enter a code that doesn't exist. You can enter a code that's inappropriate, but you can't enter things that don't exist.

The main reason was we could get better understanding of what's going on. It was faster and provided immediate data to managers. Right now, we have the capability for electronic reporting for commercial dealers and fishermen, and for a smaller universe of for-hire captains. The directions that we've been taking our user interfaces are to make them as easy to use as possible.

All of you are familiar with the issues that are incumbent with paper reporting systems. They sometimes have human error, they are hard to read, and of course, there is always timeliness. For example, even with partial electronic reporting systems, the GARFO VTR system is an example of that. Those forms are scanned, and then once they are scanned, they are reviewed and entered into a database system; even when they're scanned using optical character recognition, there are always update issues.

Even if you cut back on your data reporting time, still it can take anywhere from weeks to months for data to get in from the paper-based reporting system. We started with electronic reporting for dealers, which is actually fairly widespread coastwide. The northeast and southeast regions both require electronic reporting from their dealers.

In the northeast they are using either the SAFIS online system; there is an upload component to the SAFIS system that allows large scale dealers to submit data directly in the SAFIS system; or there is also a bluefin application that is in use by a lot of the northeast dealers that pushes data into SAFIS through the same file upload interface that is used by large scale dealers. In the southeast there is a version of the SAFIS system that was deployed, the E-1 Ticket System, which models the single trip ticket model that's in use.

Then we have a smattering between the states. Some states are doing it in a hybrid way, for example, Massachusetts allows their dealers to report electronically but doesn't require it. But they are all using the SAFIS database interface, in order to get data into the system. As you can see, between 2000 and 2012, we've had a very widespread adoption of electronic dealer reporting coastwide.

The benefits that everyone expected pretty much have been realized from that. We do have some other - - for example, in North Carolina there is a hybrid system, where they are using the bluefin tool to receive data, and then they transmit the federal records directly to SAFIS. State records go into their local systems.

We still do have some of those hybrid solutions that are in place, and we expect that probably to increase. One of the issues that we have as a system is that it is difficult for us to respond to complex local user requirements. In other words, the baseline for what SAFIS requires, the baseline ACCSP standards, our systems are all designed to accommodate that. Of course, all of you recognize that your

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data collection twists, I described them as twists, and can be unique and sometimes quite complex. One of the things that we have been looking at as we move forward into the future is working to better allow for the third party tools; some of which are already in place, for example, FACTS in Maryland, to allow them to be able to interface directly into our data system, so that those data can be provided in a more expeditious way.

Moving forward to commercial fishermen, the transition to electronic trip reporting has been a lot slower and more fragmented, in part, because of the technical issues locally. There were problems with local technology. Many of you have been around long enough to remember old ruggedized specialized systems, Thistle, for example, made a system that was intended to be used for lobster reporting.

As the technology has become less expensive and more rugged and faster, it has become easier to allow for electronic trip reporting with inexpensive, almost dispensable hardware. Where we are right now with electronic trip reporting, at this point no large scale jurisdiction requires no mandatory electronic trip reporting on a very large scale.

There is electronic trip reporting in place in a lot of places where it is optional. For example, the GARFO VTRs can be submitted electronically, and many of the other states allow for it, as well. The eTrips/Mobile is deployed in the for-hire fisheries in Rhode Island and is being used as a template for the research projects that are ongoing.

We're going to talk about those. That is where a lot of the confusion comes from, I think. Then the eTrips tool itself is in use in a hybrid way in many of the northeast states. Some of you allow the captains to report electronically online, and then key the balance of the paper reports into the system. But that realizes part of the benefit, in the sense that the data are all in a single repository and are relatively easy to associate with dealer reports.

The e1-Ticket System also accommodates vessel trip data. We're putting it up here as electronic reporting in the southeast, and that's in place in the southern states of South Carolina and Georgia. There are other electronic reporting tools in Maryland and Virginia, North Carolina and Florida. I sort of alluded to a couple of those before.

Our long term goal would be to eventually be able to incorporate those data directly into the database in something approaching near-real time. That would eliminate some of the data feed lag that we have. For example, although we receive data from everyone regularly, our program standards only really require that they submit it to us once.

When we were working on a slower time scale, that worked okay, but at this point now when we're being pressed to provide data in a closer timeframe, we're looking at ways to try to get data into the systems more quickly; and also, frankly, with less trauma at the individual level. If the tools will automatically transmit the data to us, then your staff doesn't have to worry about it, and we have it faster.

Moving to the vessel trip reporting, a little bit more detail. GARFO does allow for paper or electronic, and the requirements vary some. You can see the permits that are up there on the right. By the way, my thanks to Ali Schwaab, she did almost all the research on this. If you note any issues or errors with information I'm presenting, please contact us. You're kind of my trial run for this presentation. I'm looking for feedback from you. We plan to go to the fisheries management councils with this, since the

question arose at the South Atlantic Council. I certainly welcome any feedback from you, if you felt like it was useful; or if there is additional information you might want; or you catch us in an error. We're glad to make some updates. Oh, Gordon already has something.

MR. GORDON COLVIN: Would you send it to us, Mike?

MR. CAHALL: Oh certainly, absolutely.

MR. COLVIN: That will be easier to get feedback from others, not just the people at the table if you do that.

MR. CAHALL: Going back to GARFO. GARFO has authorized electronic submission from, at this point, five different systems, which include the SAFIS eTrips/Mobile. We are also working with them to authorize the online tool, as well. Even though they do have authorized electronic applications, very few of them are taking advantage of the applications program interface that GARFO wrote, and in fact, the eTrips/Mobile tool shook some bugs out of that thing while we were working with them.

When the VTRs move down to ACCSP, of course, we're going to adopt the same model, and initially, we're not going to change anything, I don't think, the way that the plans are working right now. In the Southeast Science Center, they accept paper VTRs. They can access the northeast data. Where we have dual permitted vessels, they are able to pull the VTRs from the northeast. We have a copy of the northeast's VTRs in our database, and also our own, and they're able to access those and they are using those actively.

Moving on to state trip reporting, of course, as soon as we switch to state we have to switch gears, because keep in mind that the federal agencies permit vessels and the states typically permit harvesters. We sometimes run into some issues with overlapping areas of authority, because you may have a licensed state harvester on a federally permitted vessel, and then whose report really is it?

We're still working on some of those issues. But typically, the state reports are based on the fishermen's permit. We do have a pretty good universe of those permits. We have either direct connections to the state permitting systems, or your folks help keep our systems update through the SAFIS interfaces or provide us with flat files that we load in.

Then again, obviously, the frequency reporting widely varies depending on the state requirements. There is electronic or paper reporting in many states. We kind of have gone over some of those, and in a few of the states, it is almost entirely paper. Again, in other states in the southeast again, we have that one Ticket model. It varies. In the northeast there is typically a two Ticket model, which is used; one ticket is intended to validate the other.

Then in the southeast, starting at South Carolina south, they use a one ticket model where they collect some data from the harvesters and additional data from the dealers. Moving on to for-hire, it was interesting; we just were having a little conversation earlier about this. How for-hire reporting is managed is pretty heavily mixed. There is HMS reporting, which is specifically for their species that are managed. Those are electronic. For GARFO they could submit paper or electronic trip tickets, but it's mandatory reporting for the federally permitted for-hire boats.

They are also surveyed through MRIP, which has the consequent issues that I'm sure we're all aware of. Then the GARFO data are used by MRIP at the end of the year, to calculate effort and adjust estimates, if needed. In the southeast they have headboat, the Beaufort Headboat Program, where they do have the headboats submitting trip reports electronically.

They've been doing a lot of work on that system; it's been improving steadily over the years. We currently don't have direct access to those data, but we're able to get summaries from it later. Then, of course, the charterboats are surveyed through MRIP, so you have this mix; which I think was pretty clearly articulated when you were trying to get the cobia numbers.

I think that is going to be an interesting challenge for us probably, over the course of this next year or two, as we work with the commission to try and figure out the best way to get and process those cobia numbers. Of course, the state for-hire reporting varies very widely. In many states there is no mandatory reporting, in others, you do have paper or electronic reporting for some specific species.

Then again, we have a couple of voluntary programs that are running. The New Jersey Striped Bass Bonus Program is an example of those, where they issue a bonus card if folks report their catch. They use those numbers later in adjusting, you don't use them in your official estimates, I assume. I don't actually know how your numbers are used.

Then there is some mandatory electronic reporting in Rhode Island, which is, of course, where the for-hire redesign all started. Adding to further confusion are a lot of different recent electronic reporting efforts. We'll start with in 2011 that electronic trip reports were authorized by GARFO in the northeast region.

There is a pilot study in 2012 in the southeast region, which was a headboat survey, which was run by Beverly Sauls, I believe, which concluded in 2013. Then in 2014 you have the northeast modernization, which has been running in the background for a number of years. The southeast federally permitted begin to be required to report electronically.

Southeast headboats had to start reporting electronically through the Beaufort Headboat Survey. A pilot study for electronic reporting for federally permitted southeast commercial vessels was also conducted. In 2015 the northeast region published their Electronic Technology Plan, which we helped participate in a little bit. The southeast region also did that.

These are the consequences of ongoing reviews of the programs. NMFS has put in place cyclical reviews of the regional and headquarters programs that will result in an ongoing review process with a view towards improving their services and their ability to accomplish their tasks. We're going to see those as ongoing.

Then in 2016 the southeast is looking at mandatory electronic reporting for for-hire. The Mid-Atlantic has mandated, I believe, electronic reporting in some portions of the for-hire industry. There are also ongoing efforts, which haven't quite finished up yet for mandatory reporting in some specific areas of the private angler with the Mid-Atlantic; I'm thinking of tilefish there.

I know that the South Atlantic is working right now on pulling together a pilot project to look at other ways of collecting data in red snapper. There is a large checkerboard of activities that are going on, and

sometimes it is difficult to tell the difference between the ongoing programs that are running and the pilots.

There is also a southeast pilot that is running right now looking at a South Atlantic Council pilot, looking at validation of efforts from for-hire census reporting that looks like it is utilizing the APAIS survey to validate the for-hire reports. There is so much going on that it can be difficult. Next steps for our program, we expect to see mandatory electronic reporting in the for-hire industry.

These are the kinds of questions that we're looking at as a program, how we're going to work through this. A really good example, there is a lot of activity going on in the southeast region, but right now there is not an infrastructure to support the data collection process. How is that going to be accomplished? What is the role of the program in that? How can we help? How is training and support going to be provided; those kinds of questions.

Finally, how is ongoing technical support going to be provided? If there is electronic trip reporting mandated coastwide, are we going to have 13 individual states plus two regions each managing their own system? Are we going to try to set something up to coordinate something on a coastwide basis that would have applicability to all of the different programs?

In this year's administrative grant request, there is money set aside to set up a pilot help desk, to see how that would work, to initially look at how we would support the tablet tools and see what's going to be involved in managing that. In terms of our eTrips/Mobile tool, most of you are aware of it.

It is intended to allow trip reports to be done on a mobile device. It satisfies the federal VTR reporting requirements, and we're looking at it as being intended as a universal tool, and so it is designed to be user centric. It knows who you are. It knows whose permit you're operating under and it adjusts itself, depending on how you have logged into it; and those data go directly into SAFIS.

The program we recognize that there are local needs that we're simply not going to be able to meet, without putting substantial effort into it. The question then becomes, is it better for the program to provide a default tool, and allow the individual program partners to develop solutions tailored to their own needs, or do we want to take e-Trips Mobile, which is built on a very powerful platform. It can do a lot more things than we have it doing.

But I think that the model that is likely to work for us best, is to develop a common data transfer standard, and work with our program partners locally; who develop their own tools, and make sure that we remain compatible, and we're able to manage the data for them.

What we're doing right now for eTrips /Mobile, assuming that you all approve our administrative grant request, we want to conduct a series of in-person training workshops, to make sure everybody is comfortable using the tool, especially the state and federal folks who might be directly involved. This will include working with the port agents in the northeast region. We've been taking with them, and they are very interested in working with us on that.

We'll conduct some webinars. We will set up a 24-hour help desk, and I'm going to show you how the decision tree kind of works in that scenario, as we're talking our way through it. We're going to put similar resources on our website that should help folks who have questions about how to use this particular system.

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This is the first time that we're going to deploy a system, sort of independently. The dealer reporting system in GARFO in the northeast region was supported by their port agents and by their own training and outreach and help desk activities. The mobile tool, the tablet-based tools, because of the scale, almost have to be supported centrally. If you would skip to the eTrips/Mobile decision tree, this is the decision tree.

Right now, we have a temporary process in place, because of how the systems are managed. Basically, you go down different tracks. If you're just a state person, we go down one track. If you're just a federal person, we go down another track. If you're both, there is yet another track, and basically, do you have a state or a federal reporting requirement?

This is for, where do you direct the problem? For example, if you are reporting a federal trip, and you have a problem with your federal reporting requirement, you can use the tool, but you have to contact ACCSP to set up your account right now, because GARFO doesn't have anything in place to do it.

Then if you have issues with the reporting itself, you have to go back to GARFO. If you have a technical problem, we direct the call to Harbor Light, who is the contractor. This is typical of the kind of complexity that is involved in supporting these systems on a large scale. Does anybody have any questions? We'll distribute the presentation to everyone.

I'm very interested in your input. I want to make sure that we answer any questions that you have, and that we cover the bases so that folks understand where the state of the art is. Of course, it's a constantly moving target. There are a lot of projects ongoing in the different partner agencies, and of course, pilot programs that are going on sponsored by any one of a number of our different partners.

CHAIRMAN BOYLES: Questions for Mike? Lynn.

MS. LYNN FEGLEY: Well, Mike, thank you. That was, for me, just enormously helpful. I think it's going to serve, when you send that around, as a great reference. I just want to say that one of the reasons I started thinking about this was because I was just desperately trying to understand all of the different pieces that are going on out there; and for Maryland in particular, how we fit in.

Then that led to sort of this efficiency of scale, and kind of this bigger question that I think might come before this group at some point of, what is the most efficient way to handle all this. I think, Mike, you really hit on that very well. Really, I don't have a question, but I just also wanted to bring up the fact, too, that in Maryland, one of the other things that we've been thinking about, and every state has different objectives, and one of ours is very much not only this idea of more rapid, timely, better quality data, but also the fact that for us in Maryland, I think this is a very Maryland centric problem. We have a devil of a time enforcing the harvest reporting, so there is really no mechanism to enforce reporting.

When we go to paper reports, if we can even try to enforce reporting, it has to go before a judge. The result is invariable where the judge says, well, why didn't you report, and a fisherman says, well, I did, I sent my paper by mail; didn't you get it? Then at that point there is just no way to prove legally where that piece of paper went.

We also have issues in Maryland, and particularly for Maryland specific fishery like blue crab, where we made some management choices to base regulation on harvest history; and this was not an ITQ. It was

a one-year management approach, and what happened with the harvesters was they reacted in a very human way, which is, our blue crab harvest increased by about an order of magnitude in a year.

Because folks really wanted to get harvest on the books so that if we ever did this again, they would be ready for it. What happened in Maryland is our industry actually got together and said, one of the things that they need is a mechanism through electronic reporting that allows for validation of harvest. It allows for a real mechanism, are you on the water today, are you fishing today.

If you're fishing today that means we get a report, and there is a mechanism for that harvester to be intercepted at the dock, and for that catch to be verified. I am sort of spouting off here, but there are a lot of really big questions with this electronic reporting stuff, and Mike, I just can't thank you enough, because for me, that was just enormously helpful. There is going to be a lot of stuff to discuss in the coming months. Thanks.

CHAIRMAN BOYLES: Again, Mike, thank you, I'll echo that; it's very, very helpful; and Gordon, thank you for requesting that the members of the Coordinating Council receive that. When that is sent out, if you would pay careful attention to it, because I find it to be very, very helpful again with just all the things that are going on. Mike, thank you, nice job! Next item on our agenda is Consideration of Approval of the Recommendations for FY2017 Proposals. Jerry Morgan and Pat Campfield are here for our Ops and Advisory Committee.

Consider Approval of Recommendations of FY2017 submitted proposals (Operations Committee Chair P. Campfield and Advisory Committee Chair J. Morgan) – Attachment III

MR. CAMPFIELD: Again, at the fall meeting, the Operations and Advisory Committees scored the 14 proposals that were submitted for the FY17 RFP. The program priorities remained top priority of catch effort and landings data, followed by biological data and then releases, discards and protected species data, and finally economic and social data.

Again, 14 proposals were submitted, 7 in the maintenance category and 6 in the new category; as well as the Administrative Grant Proposal. For maintenance this is the eighth year that we have used the breakdown of 75 percent of the funding should be allocated towards maintenance proposals, and 25 percent towards new proposals.

This is the second year that we are using the long term funding limit policy. This translates to full funding of maintenance projects through FY19, and then begin to reduce the funding by 33 percent in FY20, and again in FY21 cycles. Also notable, the seventh year that we've had what we are calling a sufficient number of new proposals, which is good for the program. We're getting innovative projects coming in, and hopefully transitioning some of these maintenance projects off of ACCSP funding.

The next slide is just a time series of the funding provided to the program, to ACCSP through the Administrative Grant from 1999 through 2016. You can see that the funding amount in blue started around \$800,000.00 and had essentially doubled up to about 1.6 and now 1.8 million dollars in the Administrative Grant over the years.

That funding amount is very much in parallel with a number of staff as the program has grown over time, and that is in the red line and then the green line, I think, is the funding available to the partner proposals over the years, so there is a slight decline in that over time. For this year, assuming that the amount of

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funding available is 3.35 million, the administrative grant will be as proposed at 1.8 or roughly 57 percent of the total available funding, leaving about 1.3, 1.4 million dollars towards partner projects.

Then the pie chart on the right is the breakdown between maintenance at 75 percent in red, and new proposals, the available funding, in green at about \$375,000.00. With that, I think I'll turn it over to Jerry, our Advisor's Chair, to give you an overview of how Ops and Advisors ranked the proposals.

MR. JERRY MORGAN: Good morning, everybody, thank you Maine DNR and thank you Bar Harbor, for sure. One of ACCSPs Advisors most important functions is to bring to the program input from industry, both recreational and commercial fisheries. That has the potential to affect management decisions during these exciting, innovative changing and challenging times.

The flip side is being able to reach out to these same groups explaining who we are, what we do, and why it is important. Another very important function performed is evaluating and ranking the fiscal year proposals from our state partners. That being said, we can go over some of the items. Although there were some slight differences when the Advisors met, it did not change the rankings.

There were a couple of flips in between. Maintenance, we found, was pretty consistent throughout. Those we've approved and sent our recommendation to Ops. The joint recommendation to fund all maintenance projects and fund the new Massachusetts and Georgia projects completely, with any balance of the funding going to the Southeast Fisheries Project was by consensus.

Now our Number 1 ranking went to the Northeastern Black Sea Bass Otolith Age and Validation, and that was Massachusetts. Our Number 2 was the Southeast Fisheries Science Center Estimation of Bycatch in the South Atlantic Snapper Grouper Fishery; a comparison of self-reporting logbooks on log onboard observers.

Number 3 went to Georgia, the Data Entry and Management of Commercial Fisheries Paper Trip Tickets in Georgia. The balance of the new proposals was fairly consistent, with what we've decided and what we looked at. Ahead of our joint meeting, the Advisors did get together, hash out all of these proposals, rendered some input, and took a look at how these rankings stacked, and as a result, forwarded these recommendations to our Ops Committee. Pat, you can take it from here.

MR. CAMPFIELD: You can see, in conclusion, on the screen, both Ops and Advisors reached a consensus to recommend to the Coordinating Council to fund all of the maintenance proposals, if our math is right. After all maintenance proposals are supported, that would leave about \$21,000.00 to roll into the funding available to the new projects.

Again, as Jerry mentioned, we're suggesting and have reached consensus that the top ranked project is the Massachusetts Sea Bass Aging Project, and had a little bit of a difference between numbering 2 and 3, between Advisors and Ops; but I think we agreed that Georgia Trip Ticket Data Collection is essential, and so we moved that up to Number 2. Then the third project, again, would be the Southeast Science Center's proposal to support observer and logbook sampling for the snapper grouper fishery.

The result would be the Southeast Center Observer Proposal came in at sort of a scalable approach, 1 or 2 percent. Their total request was \$333,000.00 and it looks like we have about two-thirds of that available to put towards Southeast Observers. Those are the recommendations from Ops and Advisors.

CHAIRMAN BOYLES: Pat and Jerry, thank you all. know that is always a difficult process, but I appreciate the perspective that you all bring to the program and to the efforts. Questions for Jerry or for Pat on the recommendations? Gordon.

MR. COLVIN: Pat and Jerry, thanks for that report. I think we're fine with this, but I just wanted to raise one question, Pat. Did the Ops Committee discuss at all with respect to the Massachusetts Aging Project. What we see is that it seems to be more of a pure science kind of a project, as opposed to a fisheries data and statistics related project; as so many of our others are? If so, what was the thinking of the committee about it?

MR. CAMPFIELD: Yes, the committees did discuss that. I think, in short, it addresses some biological information, so it is eligible in that sense. But also, I think maybe the more important factor was the bang for the buck, as was discussed yesterday. Black sea bass science assessment management has a number of questions or issues that we're collectively trying to address.

This project at, if I've got the number right, about \$18,000.00 will really move the ball down the field, at least on the science and the aging information that would go into future stock assessment, and that's why we ranked it highly. But it was eligible.

CHAIRMAN BOYLES: Further questions? Seeing none. Bob.

EXECUTIVE DIRECTOR ROBERT E. BEAL: A quick question to Pat, I suppose. All the recommendations that are up on the screen now are based on 3.35 million. If there is funding at 3.5, the extra \$150,000.00, would that be used to round out the scalable project for the Southeast Fisheries Science Center, and then the remainder of that would go where? There is probably \$50,000.00 or so left over.

MR. CAMPFIELD: That's correct, Bob. If we got an additional \$150,000.00 that would right go over the top. We would fully fund or recommend to fully fund the Southeast Observers Project. Then if you could put back up on the screen, please, the new proposals. I'm not sure where we left off. I think there were differences between Ops and Advisors, in terms of those last three new proposals.

I think, under one scenario, the New Jersey proposal ranked higher than others. It may have been the Maryland or Maine project. I think we would fully fund Southeast. I guess a related question is whether the remaining money, after fully funding Southeast, would be able to -- New Jersey or Maryland or Maine could actually use that; because it would be a relatively small amount of funding. I don't know if Mike has more to add to that based on the discussions at the meeting.

MR. CAHALL: I think that typically my guess is that if we do receive additional funding, it will be what they refer to as a little bit of couch cushion exercise. If they have the funding to cover the South Atlantic Project, then that is probably where they would stop, unless we specifically asked them to provide additional money.

Typically, we would just go down to the next highest ranked proposal, but we haven't received in recent years a full 3.5, we've come within \$20,000.00, \$50,000.00. I would think it would be really unlikely that we would get a full 3.5. I would suggest that we really won't know until we know exactly how much we get what the process would be.

My suggestion might be, there is no way we can adequately fund the other two projects with anything likely to be left over. It is a possibility that we might be able to do the New Jersey Bycatch project, or part of it. Typically, the guidance that we've gotten from the council is that you try to fund the next highest ranked project.

That might be my suggestion at this point. We could go back to the -- what are we calling the Executive Committee now? The Leadership Team, if we end up with the additional funds, and allow that group to make a decision about what the best thing to do might be.

CHAIRMAN BOYLES: Mike, let me just clarify. We can presume then that the new project proposals; the next in line is the New Jersey DFW Project?

MR. CAHALL: I would say that from a practical standpoint it almost has to be, because we are unlikely to get anything like enough money to fund either of the other two projects.

CHAIRMAN BOYLES: Do we have a sense of when that number might be, we're under a continued resolution, so I guess that is the \$64.00 question, perhaps.

MR. CAHALL: Typically, we find out in usually April or May, sometimes earlier; you never know the lame duck, if the lame duck Congress passes the CR, then we'll know. But typically, we don't know, and there is always a little bit of a scramble. Last year, for those of you, you might recall that ST in Sustainable Fisheries reprogrammed some funds internally and funded a couple of our projects through a different funding source; which then freed up the ACFCMA and FIN funding. You never can be exactly sure what's going to happen.

CHAIRMAN BOYLES: What we have is a consensus recommendation to fund all the maintenance projects and the new Massachusetts DMF and the Georgia DNR projects, along with the scalable portion of the Southeast Fisheries Science Center for new projects, on the presumption that we would have 3.35 million dollars available. That is the consensus recommendation from the Advisors and the Ops. Is there a motion to that effect? Terry.

MR. TERRY STOCKWELL: On behalf of the state of Maine, I greatly appreciate the consensus recommendations from the Advisors and the Ops Group. It is nice to be back before the ACCSP this year without having to throw another Hail Mary. With that said, I am going to move that the ACCSP supports and approves the joint recommendations of the Advisors and the Ops for 2017.

CHAIRMAN BOYLES: It's a motion by Mr. Stockwell, is there a second? Second by Cheri. Discussion? Cheri.

MS. PATTERSON: Yes, I would like to add to that motion that if there are additional funds that do become available through Congress, that the Leadership Committee meet and make a recommendation to the Coordinating Council; or make the decision as to how to deal with the extra funds.

CHAIRMAN BOYLES: Terry, is that fair? Okay. The motion then, if I may read it, is **to accept the Operations and Advisory Committee recommendations of funding all maintenance proposals; fund the Massachusetts DMF Sea Bass Aging; the Georgia DNR Trip Ticket; and partially fund the Southeast Fisheries Science Center Snapper Grouper Observer Project; and if additional funds are made available to the ACCSP, the Leadership Team will meet to determine how to allocate those additional funds.**

That was a motion by Mr. Stockwell, seconded by Cheri. Is there further discussion on the motion? Any objection to the motion? Seeing none; that motion carries. Thank you. Next up is to consider the approval of the Addendum to the MOU reflecting the governance change. Let me see if I can do this quickly.

Consider Approval of Addendum to Memorandum of Understanding to Reflect Governance Change
(R. Boyles) – Attachment IV

We're under the gun with Business Session. You all, again, be reminded that there has been a lot of discussion and a lot of effort looking at modifying the nature of the relationship between ACCSP and ASMFC. We have talked about this extensively over the last several years, culminating in a discussion back in August that was reflected in the meeting minutes that requested the Governance Transition Workgroup go back and review some of the elements of the MOU to actually affect this marriage, if you will.

I may lean on Bob and Mike to make sure I'm stating things clearly for the record. What you have -- the Governance Transition Working Group, has worked very diligently to go through a Draft MOU Addendum that has been submitted to you all. It's in the briefing materials. I want to say thank you, particularly for the Governance Transition Workgroup; there have been a lot of people with a lot of eyes and a lot of brain power looking at this.

I certainly appreciate everybody's efforts, and what I would refer you to, please, in the briefing materials is the Draft MOU. It is dated October 20th, 2016, Addendum to the Memorandum of Understanding for the establishment of the Atlantic Coastal Cooperative Statistics Program. The Transition Group met via conference call a week ago, 10 days ago; I'm on hurricane time, so I'm not quite sure when it was. A lot of background gone over, a lot of editorial comments made. Specifically, among other things, to explicitly state that the ACCSP, through the adoption of this MOU, will be a formal part of the Atlantic States Marine Fisheries Commission. That MOU, again, is a five-pager in the supplemental material.

We talked about, among other things, what to call the Executive Committee, the ACCSP Executive Committee; where we have landed is to call it the ACCSP Leadership Team, the intent to have a group that could meet, a smaller group that could meet to make decisions and/or recommendations to the Coordinating Council, in the event of needing a quick response.

There was a question that we asked of staff, and that was the question regarding affecting this change via the MOU, whether it would need to be signed again; and Bob and Mike, correct me if I'm wrong. I believe, through your research, you've indicated that formal adoption of previous MOU addenda have been via a vote here.

What I would seek today among the Coordinating Council is an approval of the MOU, as presented, and with that one last thing, I would like to point out is that we had, again, the transition working group, a lot of work, a lot of eyes, a lot of effort went into this. The Transition Working Group is making a unanimous recommendation that the Coordinating Council approve the MOU as presented. With that, I might look to Bob or Mike to make sure I didn't mangle anything too poorly and ask for any questions about affecting this change.

MS. PATTERSON: I don't want to drone on with questions. I just wanted to clarify that the Leadership Committee, formally the Executive Committee, is still made up of the same general group of people that covers the whole coastline, the two federal agencies and the council.

CHAIRMAN BOYLES: Thank you, Cheri, good point. Thank you for clarifying that. Further questions for me? Further discussion on this issue? What I would then look for from the body is a motion to accept the MOU Version 2, October 20th Addendum to the MOU for ACCSP. Can I get a motion to that effect? Steve Heins. Motion by Mr. Heins, seconded by Dr. Duval. Discussion? Bob.

EXECUTIVE DIRECTOR BEAL: Just a point of clarification, I hope. I think you only mentioned the MOU Addendum, but there is probably value in also including the Transition Document, which lays out the plan of attack for the next couple years.

CHAIRMAN BOYLES: Thank you for that Bob, yes you're right. Recall that we went through that pretty extensively back in the August meeting, so that Transition Document is also included in your briefing materials. Further discussion? Any opposition to the motion? I guess I should read that: **Motion to accept the Governance Transition Workgroup unanimous recommendation of approval of the ACCSP Transition Document, and the MOU Addendum, thereby approving the transfer of ACCSP from an independent program to a program of the ASMFC.**

That motion was by Mr. Heins and seconded by Dr. Duval. Is there any opposition to that motion? I see none; that motion is approved unanimously; thank you all, and congratulations on the marriage. We had the rehearsal dinner last night. Party is in 1067 tonight. With that, we are down to other business, and Mark, could you bring your item, please?

Other Business

MR. MARK ALEXANDER: I would like to draw your attention to an e-mail that was circulated just prior to the meeting today. It is an e-mail from Peter Zukoski of Sea Plan to Mike. Peter of Sea Plan, the Northeast Regional Planning Body ACCSP, George Lapointe Consulting, Harbor Light Software have been working on a pilot study to refine a methodology to characterize the for-hire industries use of the ocean.

This effort coincided with the development of the Northeast Ocean Plan, and arose out of an interest by the industry that their activities be documented as part of the Ocean Planning Process. Specifically, the pilot study is using a feature of eTrips/Mobile that allows vessel tracking by recording a location every two minutes.

As you might imagine, this is sensitive data and Peter has worked hard with the industry to gain their trust and that the data would not be misused and distributed without their permission. Peter has worked with fishermen from each state to develop data visualizations that are acceptable to them for publications of data.

So far, vessels from Connecticut, Rhode Island and New York have been involved in the study. Sea Plan's involvement in the pilot project is ending in December, and Peter is seeking to engage ACCSP and the states involved in the project in a discussion to address some loose ends as Sea Plan's involvement comes to an end.

Their concerns involve the fact that the precise location data is quite sensitive in this industry. There is going to be a little bit of ambiguous ownership of the data, in their eyes. This lack of clear guidelines about handling and vetting the location data for release, and the industry needs insurance that the data already submitted and data that will be submitted in the future will not be misused.

There are several needs pointed out in this e-mail, one is what does this whole effort look like going forward without the involvement of Sea Plan? There is a need that ACCSP continue to recognize the sensitivity of the data. I know the ACCSP is extremely cognizant of confidentiality, but that is still an issue that the industry has a concern about; and that ACCSP continue to be engaged with the industry, both in terms of continuing the project, and establishing standards and a process for data access, and publication of visualizations of the data.

Peter provided me with a project report for that project, and I'll see that it gets circulated to all the Coordinating Council Members, but one thing that arose out of that project was that the vessels involved from the three states had different ideas about what were acceptable visualizations of the data.

That is going to be a little bit of a challenge going forward, is coming up with something that will be acceptable to everybody. One of the states whose vessels are engaged in this pilot project that was asked to participate in further discussion before Sea Plan's involvement comes to an end. I'm also the New England Council's representative to the Northeast RPB, so that is how I got involved in this.

The question for the Coordinating Council here is who from ACCSP should be involved in this discussion? Should maybe some of the committees be involved in coming up with some idea of ACCSP policy in this regard? Of course, time permitting, we only have until the end of the year. What are some of the Coordinating Council's thoughts on some of the possible actions that Peter outlines in his e-mail? If anybody has any ideas on this, I would certainly like to hear about them.

CHAIRMAN BOYLES: What I would suggest, maybe in the interest of time, is that we look to Mike and staff to circulate the information, the e-mail that you shared with me, for instance, and also be prepared to discuss how we might be involve, but look to Mike to lead that effort. Mike, do you want to comment?

MR. CAHALL: Just as a quick background, the eTrips reporting tool uses onboard GPS capabilities of the tablet, and can record location data either when catch is recorded, which assumes near real time reporting and/or maintain a track of the vessel by a mechanism essentially waking the tablet up every so often and recording its speed and its location.

We added those in response to this particular pilot, and I think it does bring up a little bit of a larger question. I mean, clearly, tracking data exceeds ACCSPs current standards. We are storing that data for this project, but there is no use within ACCSP of these data per se. We have no method to distribute it. There is no way for us to display the plots. We simply are holding the data on behalf of this pilot project.

I think there are a couple different questions that also -- this is the first time where we've actively participated in a pilot like this, and now the pilots over, and what do we do? I think that's another question. We're very amendable to working with whomever is going to be taking this over, whether it is potentially a group of captains or a state agency or whomever.

The tracking capabilities of the tablets, I think, have a lot of potential, because they're far less expensive than the existing VMS systems. On the other hand, I, personally, am certainly cognizant of how sensitive

these data are. Personally, I am open to whatever suggestion anyone might have about how the best way to move forward.

I'm happy to coordinate with these folks to work through the solution. We can certainly wipe the data if they wish. We can continue to provide it to them if they wish. A couple of these other pieces, the tool is continuing to be developed. The capability to turn the tracking off and on is now added to the latest couple of releases of the tool, and it also tells you whether or not you're tracking as the system is running.

That came out in part of the work that we're doing in the South Atlantic. It is undergoing a continuing evolution. We wanted to make it more obvious that the tool was capable of providing the tracking, and also whether or not you were doing it. It is clearly indicated whether or not you are collecting those data. But however we wish to move forward, I'm certainly happy to work with whomever and do whatever we need to do.

CHAIRMAN BOYLES: Mark, I think what I would do is suggest that Mike reach out and have some conversation, bring that back to us. I presume we'll meet in February. Is that reasonable?

MR. ALEXANDER: The thing is that the discussions that Peter wants to have will all have to take place before December. If people have any issues or sentiments on some of the possible actions or concerns that Peter outlines in his e-mail, I certainly want to hear about them sooner than later.

MR. CAHALL: Would a call that would include you and Peter potentially be a good way to go?

MR. ALEXANDER: Yes, in talking to Peter, it sounds like what he's going to eventually put together is a conference call that involves industry people, state people and ACCSP. My purpose in bringing this here today was to try to get some feedback, just so I understood or have a good sense of where ACCSP might want to stand on some of these potential actions that Peter outlines.

CHAIRMAN BOYLES: Jerry, do you have something?

MR. MORGAN: Mike, can that tracking data on the uptake be encrypted at all?

MR. CAHALL: I'm sorry I didn't...

MR. MORGAN: On that tracking data, on the upload, can that be encrypted?

MR. CAHALL: Oh yes, absolutely.

CHAIRMAN BOYLES: I'm cognizant of the fact that we're ten minute past, and in order to get substantive input here from the group, it might be a bridge too far this morning. I'm wondering if we're comfortable asking Mike to reach out. I think Mike has certainly been around the block with this group long enough to know what some of the issues and concerns might be; and would that suffice for your purposes, and is the Coordinating Council comfortable with that? Cheri.

MS. PATTERSON: I would be comfortable with Mike reaching out and getting how strongly the industry feels about how this should be dealt with, and then come back to the Leadership Committee, and have that conversation before the end of the year.

CHAIRMAN BOYLES: Mark, do you think that is sufficient? Okay, very good, first task for the newly formed Leadership Team, very good.

MR. CAHALL: All right, so I'll reach out to Peter, and we'll offer to provide facilities for the industry call if needed.

Adjourn

CHAIRMAN BOYLES: Terrific, any other business to come before the Coordinating Council? Seeing none; we will stand adjourned.

INDEX OF MOTIONS

PAGE 18: Motion to accept the Operations and Advisory Committee recommendations of funding all maintenance proposals and fund the Massachusetts DMF Sea Bass Aging and the Georgia DNR Trip Ticket, and partially fund the Southeast Fisheries Science Center Snapper Grouper Observer Project; and if additional funds are made available to the ACCSP, if the Leadership Team will meet to determine how to allocate those additional funds. Motion passes on Page 18.

PAGE 20: Motion to accept the Governance Transition Workgroup unanimous recommendation of approval of the ACCSP Transition Document, and the MOU Addendum, thereby approving the transfer of ACCSP from an independent program to a program of the ASMFC. Motion passes on Page 19.



Atlantic Coastal Cooperative Statistics Program

1050 N. Highland Street, Suite 200A-N | Arlington, VA 22201
703.842.0780 | 703.842.0779 (fax) | www.accsp.org

TO: ACCSP Coordinating Council and All ACCSP Committees

FROM: Michael S. Cahall, ACCSP Director 

SUBJECT: ACCSP Request for 2018 Proposals

The Atlantic Coastal Cooperative Statistics Program (Program or ACCSP) is issuing a Request for Proposals (RFP) to program partner agencies or Committees for FY18 funding.

The [Funding Decision Document](#) provides general guidance and includes information on proposal preparation, the project approval process, and the RFP schedule. Projects in areas not specifically addressed may still be considered for funding if they help achieve Program goals. These goals, listed by priority, are improvements in:

1. Catch, effort, and landings data (including licensing, permit and vessel registration data);
2. Biological data;
3. Releases, discards and protected species data; and
4. Economic and sociological data.

Project activities that will be considered, according to priority, may include:

- Partner implementation of data collection programs;
- Continuation of current program funded partner programs;
- Funding for personnel required to implement Program related projects/proposals; and
- Data management system upgrades or establishment of partner data feeds to the Data Warehouse and/or Standard Atlantic Fisheries Information System.

Proposals for biological sampling should target priority species in the top quartile (Attachment II) of the Biological Priority Matrix. Proposals for observer coverage should align with fisheries affecting the top quartile priority species (Attachment III) of the Bycatch Priority Matrix. Brief descriptions of current levels of biological or bycatch sampling by any of the Partners would be helpful to the review process. Projects for recreational catch and effort data should target the priorities set by the Recreational Technical Committee (Attachment IV).

Submissions must comply with Program Standards found [here](#). Timelines for the 2018 RFP are shown in Attachment V. Please consider using [this successful project proposal](#) as a template.

Proposals to continue Program funded partner programs (“maintenance proposals”) may not contain significant changes in scope (for example the addition of bycatch data collection to a dealer reporting project), and must include in the cover letter whether there are any changes in the current proposal from prior years, and if so, provide a brief summary of those changes.

Project submissions will be reviewed in accordance with the Funding Decision Document (Attachment I), ranking criteria (Attachment VI), and funding allocation. Current funding allocation guidelines are

Our vision is to produce dependable and timely marine fishery statistics for Atlantic coast fisheries that are collected, processed, and disseminated according to common standards agreed upon by all program partners.

75% for maintenance projects and 25% for new projects within the Program priorities. Additionally, a long-term funding strategy policy was approved requiring maintenance projects to be subject to a prior two year average as base funding. A funding decrease will begin after year 4 of maintenance funding with funds decreasing 33% each year starting in year 5 with no funding year 7. Overhead rates may not exceed 25% of total costs unless mandated by law or policy. Items included within overhead should not also be listed as in-kind match. The final decisions on proposals to be funded for FY18 will be made in October 2017. We strongly urge you to **carefully** review the Funding Decision Document, especially in reference to the budget template.

Project awards will be subject to funding availability. If there is a funding shortfall, adjustments may be made to awards in accordance with the Funding Decision Document.

Successful applications will be notified when funding becomes available and project investigators will be required to report progress directly to the Program Operations and Advisory Committees in addition to the standard Federal reporting requirements.

Please submit initial proposals as Microsoft Word and Excel files no later than **June 19, 2017**, by email to **both** Mike Cahall (mike.cahall@accsp.org) and Elizabeth Wyatt (elizabeth.wyatt@accsp.org). If you have any questions about the funding decision process, please contact your agency's Operations Committee member (<http://www.accsp.org/committees>), Mike Cahall (703-842-0781), or Elizabeth Wyatt (703-842-0780).

RELEVANT ATTACHMENTS

[ATTACHMENT I Funding Decision Document](#)

[ATTACHMENT II FY 2018 Biological Priority Matrix](#)

[ATTACHMENT III FY 2018 Bycatch Priority Matrix](#)

[ATTACHMENT IV FY 2016 Recreational Technical Priorities](#)

[ATTACHMENT V Timeline for Proposal Review](#)

[ATTACHMENT VI FY 2018 Ranking Criteria Document](#)

Funding Decision Process
Atlantic Coastal Cooperative Statistics Program
May 2017

The Atlantic Coastal Cooperative Statistics Program (the Program) is a state-federal cooperative initiative to improve recreational and commercial fisheries data collection and data management activities on the Atlantic coast. This formal funding decision process has been developed to assist the Program committees in deliberations on funding of proposals intended to enhance timely implementation of the Program. The following process and proposal formats are provided as guidance to Program Partners.

The Coordinating Council has charged the Operations and Advisory Committees to review proposals and make funding recommendations to the Program Director and the Coordinating Council.

General Process for Setting Annual Program Priorities

The “Atlantic Coast Fisheries Data Collection Standards” provides the basic framework for implementation of the program by all Program Partners. The current Strategic and annual Operations Plans will be used to guide the determination of annual priorities.

Steps in the Funding Decision Process

1. Develop annual funding priorities, criteria and allocation targets (maintenance vs. new projects)
2. Issue Request for Proposals (RFP)
3. Review initial proposals
4. Provide initial results to submitting Partner
5. Review and rank final proposals
6. Proposal approval by the Coordinating Council
7. Notification to submitting Partner of funded projects and notification of approved projects to appropriate grant funding agency (e.g. NOAA Fisheries Regional Grants Program Office, “NOAA Grants”) by Partner
8. Operation and/or Executive Committees and Coordinating Council review and make final decision with contingencies (e.g. scope of work, rescissions, no-cost extensions, returned unused funds, etc.)

1. Develop Annual Funding Priorities, Criteria and Allocation Targets (maintenance vs. new projects).

Prior to issuing the Request for Proposals, the Coordinating Council will approve the annual funding criteria and allocation targets. These will later be used to rank projects and allocate funding between maintenance and new projects respectively. Starting in FY2016 a long-term funding strategy policy was approved requiring maintenance projects to be subject to a prior two-year average as base funding. A funding decrease will begin after year 4 with funds decreasing 33% each year starting in year 5 with no funding year 7.

2. Issue Request for Proposals

a. An RFP will be sent to all Program Partners and Committees no later than the week after the spring Coordinating Council meeting. The RFP will include the ranking criteria, allocation targets approved by the Coordinating Council and general Program priorities taken from the current Strategic Plan. The RFP and related documents will also be posted on the Program's website. The public has the ability to work with a Program Partner to develop and submit a proposal. All proposals MUST BE submitted either by a Program Partner, jointly by several Program Partners, or through a Program Committee. Principle investigators are strongly encouraged to work with their Operations Committee member in the development of any proposal.

b. All proposals must be submitted electronically to the Program Director, and/or designee, in the following standard format:

Applicant Name: Identify the name of the applicant organization(s).

Project Title: A brief statement to identify the project.

Project Type: Identify whether new or maintenance project.

- *New Project – Partner project never funded by the Program. New projects may not exceed a duration of two years. Second year funding is not guaranteed, partners must reapply.*
- *Maintenance Project – Project funded by the Program that conducts the same scope of work as a previously funded new or maintenance project. These proposals may not contain significant changes in scope (e.g., the addition of bycatch data collection to a catch/effort dealer reporting project). They must include in the cover letter whether there are any changes in the current proposal from prior years, and if so, provide a brief summary of those changes.*

Requested Award Amount: Provide the total requested amount of proposal. Do not include an estimate of the NOAA grant administration fee.

Requested Award Period: Provide the total time period of the proposed project. The award period typically will be limited to one-year projects.

Objective: Specify succinctly the “why”, “what”, and “when” of the project.

Need: Specify the need for the project and the association to the Program.

Results and Benefits: Identify and document the results or benefits to be expected from the proposed project. Clearly indicate how the proposed work meets various elements outlined in the ACCSP Proposal Ranking Criteria Document (Appendix A). Some potential benefits may include: fundamental in nature to all fisheries; region-wide in scope; answering or addressing region-wide questions or policy issues; required by MSFCMA, ACFCMA, MMPA, ESA, or other acts; transferability; and/or demonstrate a practical application to the Program.

Data Delivery Plan: Include coordinated method of the data delivery plan to the Program in addition to module data elements gathered. The data delivery plan should include the frequency of data delivery (i.e. monthly, semi-annual, annual) and any coordinate delivery to other relevant partners.

Approach: List all procedures necessary to attain each project objective. If a project includes work in more than one module, identify approximately what proportion of effort is comprised within each module (e.g., catch and effort 45%, biological 30% and bycatch 25%).

Geographic Location: The location where the project will be administered and where the scope of the project will be conducted.

Milestone Schedule: An activity schedule in table format for the duration of the project, starting with Month 1 and ending with a three-month report writing period.

Project Accomplishments Measurement: A table showing the project goals and how progress towards those goals will be measured. In some situations the metrics will be numerical such as numbers of anglers contacted, fish measured, and/or otoliths collected, etc; while in other cases the metrics will be binary such as software tested and software completed. Additional details such as intermediate metrics to achieve overall proposed goals should be included especially if the project seeks additional years of funding.

Cost Summary (Budget): Detail all costs to be incurred in this project in the format outlined in the budget guidance and template at the end of this document. A budget narrative should be included which explains and justifies the expenditures in each category. Provide cost projections for federal and total costs. Provide details on Partner/in-kind contribution (e.g., staff time, facilities, IT

support, overhead, etc.). Details should be provided on start-up versus long-term operational costs.

Overhead rates may not exceed 25% of total costs unless mandated by law or policy. Program Partners may not be able to control overhead/indirect amounts charged. However, where there is flexibility, the lowest amount of overhead should be charged. When this is accomplished indicate on the 'cost summary' sheet the difference between the overhead that could have been charged and the actual amount charged, if different. If overhead is charged to the Program, it cannot also be listed as in-kind.

Maintenance Projects: Maintenance proposals must provide project history table, description of completed data delivery to the ACCSP and other relevant partners, table of total project cost by year, a summary table of metrics and achieved goals, and the budget narrative from the most recent year's funded proposal.

Principal Investigator: List the principal investigator(s) and attach curriculum vitae (CV) for each. Limit each CV to two pages. Additional information may be requested.

3. Review initial proposals

Proposals will be reviewed by staff and the Operations and Advisory Committees. Committee members are encouraged to coordinate with their offices and/or constituents to provide input to the review process. Operations Committee members are also encouraged to work with staff in their offices that have submitted a proposal in order to represent the proposal. The review and evaluation of all written proposals will take into consideration the ranking criteria, funding allocation targets and the overall Program Priorities as specified in the RFP. Proposals may be forwarded to relevant Program technical committees for further review of the technical feasibility and statistical validity. Proposals that fail to meet the ACCSP standards may be recommended for changes or rejected.

4. Provide initial review results to submitting Partner

Program staff will notify the submitting Partner of suggested changes, request responses, or questions arising from the review process (especially if a proposal initially fails to meet ACCSP standards). The submitting Partner will be given an opportunity to submit a final proposal incorporating suggested changes in the same format previously described in Step 2(b) by the final RFP deadline.

5. Review and rank final proposals

The review and ranking of all proposals will take into consideration the ranking criteria, funding allocation targets and overall Program Priorities as specified in the RFP. The Program Director and the Advisory and Operations Committees will develop a list of

prioritized recommended proposals and forward for discussion, review, and approval by the Coordinating Council.

6. Proposal approval by the Coordinating Council

The Coordinating Council will review a summary of all submitted proposals and prioritized recommended proposals from the Operations and Advisory Committees. Each representative on the Coordinating Council will have one vote during final prioritization of proposed proposals. Projects to be funded by the Program will be approved by the Coordinating Council by the end of November each year. The Program Director will submit a pre-notification to the appropriate NOAA Grants office of the prioritized proposals to expedite processing when those offices receive partner grant submissions.

7. Notification to submitting Partner of funded projects and submittal of project documents to appropriate grants agency (e.g. NOAA Grants) by Partner.

Notification detailing the Coordinating Council's actions relevant to a Partner's proposal will be sent to each Partner by Program staff.

- Approved projects from non-federal partners must be submitted as full applications (federal forms, project and budget narratives, and other attachments) to NOAA Grants via www.grants.gov. These documents must reflect changes or conditions approved by the Coordinating Council.
- Non-federal partners must provide the Program Director with an electronic copy of the narrative and either an electronic or hard copy of the budget of the grant application as submitted to the grants agency (e.g. NOAA Grants).
- Federal Partners do not submit applications to NOAA Grants.

8. Operation and/or Executive Committees and Coordinating Council review and final decision with contingencies or emergencies.

Committee(s) review and decide project changes (e.g. scope of work, rescissions, no-cost extensions, returned unused funds, etc.) during the award period.

Scope of Work Change:

- a) Partners shall submit requests for amendments to approved projects in writing to the Program Director. The Coordinating Council member for that Partner must sign the request.
- b) When Partners request an amendment to an approved project, the Program Director will contact the Chair and Vice Chair of the Operations Committee. The Program Director and Operations Committee Chairs will determine if the requested change is minor or substantial. The Chairs and Program Director may approve minor changes.
- c) For substantial proposed changes, a decision document including the opinions of the Chairs and the Program Director will be sent to the Operations Committee and the ACCSP Leadership Team of the Coordinating Council for review.

- d) The ACCSP Leadership Team will decide to approve or reject the request for change and notify the Program Director, who will send a written notification to the Partner's principal investigator with a copy to the Operations Committee.
- e) When a requested major amendment is submitted shortly before a Coordinating Council meeting, the approval of the amendment will be placed on the Council Agenda.
- f) The Program Director will notify NOAA Grants of any change in scope of work for final approval for non-federal proposals, and the Partner will need to request a Change in Scope through Grants Online. Necessary communications will be maintained between the concerned Partner, the Program and NOAA Grants. Any changes must be approved through the normal NOAA Grants process.

Determination of contingencies for funding adjustments (e.g. rescissions):

The Program Director will be notified by NOAA Fisheries of any federal grant reduction. Such reductions may include, but are not limited to:

- Lower than anticipated amounts from any source of funding
- Rescission of funding after initial allocations have been made
- Partial or complete withdrawal of funds from any source

If these or other situations arise, the Operations Committee will notify partners with approved proposals to reduce their requested budgets or to withdraw a proposal entirely. If this does not reduce the overall requested amount sufficiently, the Director, the Operations Committee Chair and Vice-Chair, and the Advisory Committee Chair will develop a final recommendation and forward to the ACCSP Leadership Team of the Coordinating Council. These options to address funding contingencies may include:

- Eliminating the lowest-ranked proposal(s)
- A fixed percentage cut to all proposals' budgets
- A directed reduction in a specific proposal(s)

No-Cost Extensions and Unused/Returned Funds:

If additional time is needed to complete the project, Program Partners can request a no-cost extension to their award period. Partners should let the Program know of the need for an additional time and then request the extension as an Award Action Request through NOAA Grants Online at least 30 days before the end date of the award.

In an effort to limit the instances in which funds are not completely used during the award period, draw down reports from the NOAA Grants offices indicating remaining grant balances will be periodically reviewed during each fiscal year.

While effort should be made to complete the project as proposed, if Program Partners find that they will not be able to make use of their entire award, they should notify the Program and their NOAA Federal Program Officer as soon as possible. Depending on the timing of the action, the funds may be able to be reused within the Program, or they may have to be returned to the U.S. Treasury.

Program Partners must submit a written document to the Program Director outlining unused project funds potentially being returned. The Partner must also notify their Coordinating Council member (if applicable) for approval to return the unused funds. If the funding is available for re-use within the Program, the Director will confer with the Operations Committee Chair and Vice-Chair and the Advisory Committee Chair, and then submit a written recommendation to the ACCSP Leadership Team of the Coordinating Council for final approval on the plan to distribute the returned money.

Necessary communications will be maintained between the concerned Partner, the Program, and NOAA Grants office. Any changes must be approved through the normal NOAA Grants process.

Relevant Deadlines

- April
 - Develop annual priorities and funding allocation targets.
- May
 - Distribute request for proposals
- June
 - Proposal submission – Proposals received after specified RFP deadline will not be considered for funding.
- July – August
 - Initial proposal evaluation - recommendations developed by Program staff, and Advisory and Operations Committees.
- August/September
 - Submission of final proposals – final proposals must be submitted electronically to the Program Director, and/or designee by close of business on the day of the specified deadline. Final proposals received after RFP deadline will not be considered for funding.
- September – October
 - Final proposal evaluation - recommendations developed by the Program Director, Advisory and Operations Committees.
- Late October/November
 - Coordinating Council approval of project proposals.

Guidelines

The following guidelines are intended to assist Partners in preparing proposals:

- The Program is predicated upon the most efficient use of available funds. Many jurisdictions have data collection and data management programs which are administered by other fishery management agencies. Detail coordination efforts your agency/Committee has undertaken to demonstrate cost-efficiency and non-duplication of effort.

- All program Partners conducting projects for implementation of the Program standards in their jurisdictions are required to submit data to the Program in prescribed standards, where the module is developed and formats are available. Detail coordination efforts with Program data management staff with projects of a research and/or pilot study nature to submit project information and data for distribution to all Program Partners and archives.
- If appropriate to your project, please detail your agency's data management capability. Include the level of staff support (if any) required to accomplish the proposed work. If contractor services are required, detail the level and costs.
- Before funding will be considered beyond year two of a project, the Partner agency shall detail in writing how the Partner agency plans to assume partial or complete funding, or if not feasible, explain why.
- If appropriate to your project, detail any planned or ongoing outreach initiatives. Provide scope and level of outreach coordinated with either the Outreach Coordinator and/or Outreach Committee.
- Proposals including a collection of aging or other biological samples must clarify partner processing capabilities (i.e., how processed and by whom).
- Provide details on how the proposal will benefit the Program as a whole, outside of benefits to the Partner or Committee.
- Proposals that request funds for Law Enforcement should confirm that all funds will be allocated towards reporting compliance.
- Proposals must detail any in-kind effort/resources, and if no in-kind resources are included, state why.
- Proposals must meet the same quality as would be appropriate for a grant proposal for ACFCMA or other federal grant.
- Assistance is available from Program staff, or an Operations Committee member for proposal preparation and to insure that Program standards are addressed in the body of a given proposal.
- Even though a large portion of available resources may be allocated to one or more jurisdictions, new systems (including prototypes) will be selected to serve all Partners' needs.
- Partners submitting pilot, or other short-term programs, are encouraged to lease large capital budget items (vehicles, etc.) and where possible, hire consultants or contractors rather than hire new permanent personnel.

- The Program will not fund proposals that do not meet Program standards. However, in the absence of approved standards, pilot studies may be funded.
- Proposals will be considered for modules that may be fully developed but have not been through the formal approval process. Pilot proposals will be considered in those cases.
- The Operations Committee may contact Partners concerning discrepancies or inconsistencies in any proposal and may recommend modifications to proposals subject to acceptance by the submitting Partner and approval by the Coordinating Council. The Operations Committee may recommend changes or conditions to proposals. The Coordinating Council may conditionally approve proposals. These contingencies will be documented and forwarded to the submitting Partner in writing by Program staff.
- Any proposal submitted after the initial RFP deadline will not be considered, in addition to any proposal submitted by a Partner which is not current with all reporting obligations.

Reporting requirements

- a) Program staff will assess project performance.
- b) The Partner project recipients must abide by the NOAA Regional Grant Programs reporting requirements and as listed below. All semi-annual and final reports are to include a table showing progress toward each of the progress goals as defined in Step 2b and additional metrics as appropriate. Also, all Partner project recipients will submit the following reports based on the project start date to the Program Director:
 - a. Semi-annual reports (due 30 days after the semi-annual period) throughout the project period including time periods during no-cost extensions,
 - b. One final report (due 90 days after project completion).
 - c. Federal Partners must submit reports to the Program Director, and State Partners must submit reports to both the Program Director and the appropriate NOAA Grants office.
- c) Program staff will conduct an initial assessment of the final report to ensure the report is complete in terms of reporting requirements. Program staff will serve as technical monitors to review submitted reports. NOAA staff also reviews the reports submitted via Grants Online.
- d) Reports shall be submitted using the following format:
 - a. Semi-Annual(s) – Progress Reports: (3-4 pages)
 - i. Title page - Project name, project dates (semi-annual period covered and complete project period), submitting Partner, and date.
 - ii. Objective

- iii. Activities Completed – bulleted list by objective.
 - iv. Progress or lack of progress of incomplete activities during the period of semi-annual progress – bulleted list by objective.
 - v. Activities planned during the next reporting period.
 - vi. Metrics table
 - vii. Milestone Chart – original and revised if changes occurred during the project period.
- b. Final Report:
- i. Title page – Project name, project dates, submitting Partner, and date.
 - ii. Abstract/Executive Summary (including key results)
 - iii. Introduction
 - iv. Procedures
 - v. Results:
 - 1. Description of data collected.
 - 2. The quality of the data pertaining to the objective of the project (e.g. representative to the scope of the project, quantity collected, etc.).
 - 3. Compiled data results.
 - 4. Summary of statistics.
 - vi. Discussion:
 - 1. Discuss the interpretation of results of the project by addressing questions such as, but not limited to:
 - a. What occurred?
 - b. What did not occur that was expected to occur?
 - c. Why did expected results not occur?
 - 2. Applicability of study results to Program goals.
 - 3. Recommendations/Summary/Metrics
 - vii. Summarized budget expenditures and deviations (if any).
- e) A project approved on behalf of a Program Committee will be required to follow the reporting requirements specified above. The principle investigator (if not the Chair of the Committee) will submit the report(s) to the Chair and Vice Chair of the Committee for review and approval. The Committee Chair is responsible for submitting the required report(s) to the Program.
- f) Joint projects will assign one principle investigator responsible for submitting the required reports. The principle investigator will be identified within the project proposal. The submitted reports should be a collaborative effort between all partners involved in the joint project.
- g) Project recipients will provide all reports to the Program in electronic format.
- h) Partners who receive no-cost extensions must notify the Program Director within 30 days of receiving approval of the extension. Semi-annual and final

reports will continue to be required through the extended grant period as previously stated.

- i) Partners that have not met reporting requirements for past/current projects may not submit a new proposal.
- j) A verbal presentation of project results may be requested. Partners will be required to submit copies of project specifications and procedures, software development, etc. to assist other Program Partners with the implementation of similar programs.

Programmatic review

Project reports will inform Partners of project outcomes. This will allow the Program as a whole to take advantage of lessons learned and difficulties encountered. Staff will provide final reports to the appropriate Committee(s). The Committees then can discuss the report(s) and make recommendations to modify the Data Collection Standards as appropriate. The recommendations will be submitted through the Program committee(s) review process.

BUDGET GUIDELINES & TEMPLATE FOR PROPOSALS

All applications must have a detailed budget narrative explaining and justifying the expenditures by object class. Include in the discussion the requested dollar amounts and how they were derived. A spreadsheet or table detailing expenditures is useful to clarify the costs (see template below). The following are highlights from the NOAA Budget Guidelines document to help Partners formulate their budget narrative. The full Budget Guidelines document is available at:

http://www.greateratlantic.fisheries.noaa.gov/ob/grants/budget_narrative_guidance-04.09.2015.pdf

Object Classes:

- a. Personnel: include salary, wage, and hours committed to project for each person by job title. Identify each individual by name and position, if possible.
- b. Fringe Benefits: should be identified for each individual. Describe in detail if the rate is greater than 35 % of the associated salary.
- c. Travel: all travel costs must be listed here. Provide a detailed breakdown of travel costs for trips over \$5,000 or 5 % of the award. Include destination, duration, type of transportation, estimated cost, number of travelers, lodging, mileage rate and estimated number of miles, and per diem.
- d. Equipment: equipment is any single piece of non-expendable, tangible personal property that costs \$5,000 or more per unit and has a useful life of more than one year.

- List each piece of equipment, the unit cost, number of units, and its purpose. Include a lease vs. purchase cost analysis. If there are no lease options available, then state that.
- e. Supplies: purchases less than \$5,000 per item are considered by the federal government as supplies. Include a detailed, itemized explanation for total supplies costs over \$5,000 or 5% of the award.
 - f. Contractual: list each contract or subgrant as a separate item. Provide a detailed cost breakdown and describe products/services to be provided by the contractor. Include a sole source justification, if applicable.
 - h. Other: list items, cost, and justification for each expense.
 - i. Total direct charges
 - j. Indirect charges: If claiming indirect costs, please submit a copy of the current approved negotiated indirect cost agreement. If expired and/or under review, a copy of the transmittal letter that accompanied the indirect cost agreement application is requested.
 - k. Totals of direct and indirect charges

Example budget table template. Budget narrative should provide further detail on these costs.

| Description | Calculation | Cost |
|----------------------------|--|----------|
| Personnel (a) | | |
| Supervisor | Ex: 500 hrs x \$20/hr | \$10,000 |
| Biologist | | |
| Technician | | |
| Fringe (b) | | |
| Supervisor | Ex: 15% of salary | \$1500 |
| Biologist | | |
| Technician | | |
| Travel (c) | | |
| Mileage for sampling trips | Ex: Estimate 2000 miles x \$0.33/mile | \$660 |
| Travel for meeting | | |
| Equipment (d) | | |
| Boat | Ex: \$7000, based on current market research | \$7000 |
| Supplies (e) | | |
| Safety supplies | | \$1200 |
| Sampling supplies | | \$1000 |
| Laptop computers | 2 laptops @\$1500 each | \$3000 |
| Software | | \$500 |
| | | |

| | | |
|--|------------------------|----------|
| Contractual (f) | | |
| Data Entry Contract | Ex: 1000 hrs x \$20/hr | \$20,000 |
| | | |
| Other (h) | | |
| Printing and binding | | |
| Postage | | |
| Telecommunications charges | | |
| Internet Access charges | | |
| | | |
| Totals | | |
| Total Direct Charges (i) | | |
| Indirect Charges (j) | | |
| Total (sum of Direct and Indirect) (k) | | |

Appendix A: Ranking Criteria Spreadsheet for Maintenance and New Project

Ranking Guide – Maintenance Projects:

| Primary Program Priority | Point Range | Description of Ranking Consideration |
|---------------------------------|--------------------|--|
| Catch and Effort | 0 – 10 | Rank based on range within module and level of sampling defined under Program design. When considering biological, bycatch or recreational funding, rank according to priority matrices. |
| Biological Sampling | 0 – 8 | |
| Bycatch/Species Interactions | 0 – 6 | |
| Social and Economic | 0 – 4 | |
| Data Delivery Plan | + 2 | |

| Project Quality Factors | Point Range | Description of Ranking Consideration |
|--|--------------------|--|
| Multi-Partner/Regional impact including broad applications | 0 – 5 | Rank based on the number of Partners involved in project OR regional scope of proposal (e.g. geographic range of the stock). |
| > yr 2 contains funding transition plan and/or justification for continuance | 0 – 4 | Rank based on defined funding transition plan away from Program funding or viable justification for continued Program funding. |
| In-kind contribution | 0 – 4 | 1 = 1% - 25% |

| | | |
|--|----------------------------------|---|
| | | 2 = 26% - 50% 3 = 51% - 75% 4 = 76% - 99% |
| Improvement in data quality/quantity/timeliness | 0 – 4 | 1 = Maintain minimum level of needed data collections ↓ 4 = Improvements in data collection reflecting 100% of related module as defined within the Program design. Metadata is provided and defined within proposal if applicable. |
| Potential secondary module as a by-product (In program priority order) | 0 – 4 0 – 3 0 – 2 0 – 1 | Ranked based on additional module data collection and level of collection as defined within the Program design of individual module. |
| Impact on stock assessment | 0 – 3 | Rank based on the level of data collection that leads to new or greatly improved stock assessments. |


| Other Factors | Point Range | Description of Ranking Consideration |
|-------------------|-------------|---|
| Properly Prepared | 0 – 5 | Meets requirements as specified in funding decision document Step 2b and Guidelines |
| Merit | 0 – 5 | Ranked based on subjective worthiness |

Ranking Guide – Maintenance Projects: (to be used only if funding available exceeds total Maintenance funding requested)

| Ranking Factors | Point Range | Description of Ranking Consideration |
|--------------------|-------------|--|
| Achieved Goals | 0 – 3 | Proposal indicates project has consistently met previous set goals. Current proposal provides project goals and if applicable, intermediate metrics to achieve overall achieved goals. |
| Data Delivery Plan | 0 – 2 | Ranked based if a data delivery plan to Program is supplied and defined within the proposal. |
| Level of Funding | -1 – 1 | -1 = Increased funding from previous year 0 = Maintained funding from previous year 1 = Decreased funding from previous year |
| Properly Prepared | -1 – 1 | -1 = Not properly prepared 1 = Properly prepared |
| Merit | 0 – 3 | Ranked based on subjective worthiness |

Ranking Guide – New Projects:

| Primary Program Priority | Point Range | Description of Ranking Consideration |
|---------------------------------|--------------------|--|
| Catch and Effort | 0 – 10 | Rank based on range within module and level of sampling defined under Program design. When considering biological, bycatch or recreational funding, rank according to priority matrices. |
| Biological Sampling | 0 – 8 | |
| Bycatch/Species | 0 – 6 | |
| Interactions | 0 – 4 | |
| Social and Economic | | |
| Data Delivery Plan | + 2 | Additional points if a data delivery plan to Program is supplied and defined within the proposal. |

| Project Quality Factors | Point Range | Description of Ranking Consideration |
|--|----------------------------------|---|
| Multi-Partner/Regional impact including broad applications | 0 – 5 | Rank based on the number of Partners involved in project OR regional scope of proposal (e.g. fisheries sampled). |
| Contains funding transition plan / Defined end-point | 0 – 4 | Rank based on quality of funding transition plan or defined end point. |
| In-kind contribution | 0 – 4 | 1 = 1% - 25% 2 = 26% - 50% 3 = 51% - 75% 4 = 76% - 99% |
| Improvement in data quality/quantity/timeliness | 0 – 4 | 1 = Maintain minimum level of needed data collections  4 = Improvements in data collection reflecting 100% of related module as defined within the Program design. Metadata is provided and defined within proposal if applicable. |
| Potential secondary module as a by-product (In program priority order) | 0 – 4 0 – 3 0 – 2 0 – 1 | Ranked based on additional module data collection and level of collection as defined within the Program design of individual module. |
| Impact on stock assessment | 0 – 3 | Rank based on the level of data collection that leads to new or greatly improved stock assessments. |

| Other Factors | Point Range | Description of Ranking Consideration |
|----------------------|--------------------|--|
| Innovative | 0 – 5 | Rank based on new technology, methodology, financial savings, etc. |

| | | |
|-------------------|-------|---|
| Properly Prepared | 0 – 5 | Meets requirements as specified in funding decision document Step 2b and Guidelines |
| Merit | 0 – 5 | Ranked based on subjective worthiness |

Biological Sampling Priority Matrix

Created in February 2017
For FY2018

*Our vision is to be the principal source of fisheries-dependent information
on the Atlantic coast through the cooperation of all program partners.*

Biological Review Panel recommends:



- Species in the upper 25% of the priority matrix should be considered for funding.
- Sampling projects which cover multiple species within the upper 25% are highly recommended.

Our vision is to be the principal source of fisheries-dependent information on the Atlantic coast through the cooperation of all program partners.

Biological Review Panel recommendations

based on matrix*:

* UPPER 25% OF MATRIX

| New Species | | | | | | | | | | | | | | | | |
|--|---------------------------|---------------------------|------------------------------|-------------------------------|------------------|----------------|----------------|----------------|-----------------|------------------------------------|--------------------------------|-------------------------------|------------------|------------------------|-------|--|
| Species | Overfished | Overfishing | Most Recent Stock Assessment | Current/Next Stock Assessment | Council Priority | ASMFC Priority | State Priority | NMFES Priority | Fishery Managed | Sig. change in landings w/in 24 mo | Sig. change in mgmt w/in 24 mo | Adequacy of level of sampling | Stock Resilience | Seasonality of Fishery | TOTAL | |
| Atlantic halibut <i>Hippoglossus hippoglossus</i> | U | U | 2015 | 2017 | 4.0 | 0 | 1.1 | 4.0 | 1 | 5 | 1 | 4 | 5 | 3 | 28.07 | |
| Atlantic Smooth Dogfish <i>Mustelus canis</i> | N | N | 2015 | | 3.0 | 3 | 1.3 | 3.0 | 1 | 3 | 3 | 3 | 2 | 3 | 25.29 | |
| American Eel <i>Anguilla rostrata</i> | Y | Y | 2012 | Update 2017 | 0.0 | 5 | 3.5 | 0.0 | 1 | 1 | 5 | 4 | 5 | 1 | 25.50 | |
| American Lobster <i>Homarus americanus</i> | N | N | 2015 | | 0.0 | 5 | 2.6 | 3.0 | 1 | 1 | 3 | 3 | 4 | 1 | 23.57 | |
| Atlantic Menhaden <i>Brevoortia tyrannus</i> | N | N | 2015 | Update 2017 | 0.0 | 5 | 2.1 | 3.0 | 1 | 1 | 5 | 2 | 3 | 1 | 23.14 | |
| Black Sea Bass <i>Centropristis striata</i> | N: MA N:SA | N: MA N:SA | 2016 | 2017 | 5.0 | 5 | 3.4 | 5.0 | 1 | 1 | 4 | 3 | 3 | 1 | 31.36 | |
| Bluefin Tuna <i>Thunnus thynnus</i> | Y | N | 2014 | 2017 | 0.0 | 0 | 1.6 | 5.0 | 1 | 5 | 5 | 3 | 3 | 1 | 24.64 | |
| Blueline Tilefish <i>Caulolatilus microps</i> | N | Y | 2013 | Benchmark 2017 | 5.0 | 0 | 1.1 | 5.0 | 1 | 3 | 5 | 4 | 3 | 3 | 30.14 | |
| Cobia <i>Rachycentron canadum</i> | N | N | 2012 | 2020 | 5.0 | 4 | 1.4 | 3.0 | 1 | 1 | 3 | 4 | 3 | 3 | 28.36 | |
| Dolphin <i>Coryphaena hippurus</i> | U | U | | | 5.0 | 0 | 1.3 | 3.0 | 1 | 3 | 3 | 3 | 1 | 3 | 23.29 | |
| Gag Grouper <i>Mycteroperca microlepis</i> | N | N | 2014 | 2020 | 5.0 | 0 | 0.9 | 4.0 | 1 | 1 | 2 | 3 | 4 | 3 | 23.93 | |
| Gray Triggerfish <i>Balistes capriscus</i> | U | U | 2016 | | 5.0 | 0 | 1.0 | 4.0 | 1 | 5 | 4 | 4 | 2 | 3 | 29.00 | |
| Red Drum <i>Sciaenops ocellatus</i> | U | N | 2017 | | 1.0 | 5 | 1.2 | 1.0 | 1 | 5 | 0 | 3 | 3 | 3 | 23.21 | |
| Red Grouper <i>Epinephelus morio</i> | Y | Y | 2010 | 2017 | 5.0 | 0 | 1.0 | 4.0 | 1 | 1 | 0 | 4 | 4 | 3 | 23.00 | |
| Red Snapper <i>Lutjanus campechanus</i> | Y | Y | 2016 | | 5.0 | 0 | 0.7 | 5.0 | 1 | 1 | 1 | 2 | 5 | 5 | 25.71 | |
| Scamp <i>Mycteroperca phenax</i> | U | U | | 2020 | 5.0 | 0 | 0.9 | 3.0 | 1 | 1 | 3 | 4 | 4 | 3 | 24.86 | |
| Snowy Grouper <i>Epinephelus niveatus</i> | Y | N | 2013 | 2019 | 5.0 | 0 | 1.1 | 5.0 | 1 | 3 | 4 | 4 | 5 | 3 | 31.14 | |
| Spanish Mackerel <i>Scomberomorus maculatus</i> | N | N | 2012 | 2019 | 5.0 | 2 | 1.4 | 4.0 | 1 | 1 | 3 | 3 | 2 | 1 | 23.36 | |
| Tilefish <i>Lopholatilus chamaeleonticeps</i> | N: MA N:SA | N: MA Y:SA | 2016 | | 5.0 | 0 | 1.7 | 4.0 | 1 | 1 | 2 | 4 | 4 | 3 | 25.71 | |
| Winter Flounder <i>Pleuronectes americanus</i> | Y: GB U: GOM Y: SNE/MA | Y: GB U: GOM Y: SNE/MA | 2016 | Update 2017 | 5.0 | 2 | 2.4 | 5.0 | 1 | 3 | 0 | 2 | 4 | 1 | 25.43 | |
| Winter Skate <i>Raja ocellata</i> | N | Y | 2016 | | 4.0 | 0 | 0.9 | 3.0 | 1 | 5 | 1 | 3 | 5 | 1 | 23.86 | |

Our vision is to be the principal source of fisheries-dependent information on the Atlantic coast through the cooperation of all program partners.

Bio-sampling Priority Matrix



| | | Biological Sampling Adequacy | |
|---------------------------|---------------------|---------------------------------|---|
| | | Adequate (0 - 2) | Inadequate (3 - 5) |
| Averaged Priority Columns | High (≥ 3.0) | Winter Flounder | Black Sea Bass - Cobia - Spanish Mackerel |
| | Low (< 3.0) | Red Snapper - Atlantic Menhaden | Atlantic Halibut - Atlantic Smooth Dogfish - American Eel - American Lobster - Bluefin Tuna - Blueline Tilefish - Dolphin - Gag Grouper - Gray Triggerfish - Red Drum - Red Grouper - Scamp - Snowy Grouper - Tilefish - Winter Skate |

Grouping of species in upper 25% of total matrix score, based on sampling adequacy and average priority (average of ASMFC, Council, NMFS and State priorities).

- Red Snapper and Atlantic Menhaden are being sampled adequately and have low priority so additional sampling is not needed.
- Projects that target multiple upper quartile species should be given a higher priority.

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Bycatch Sampling Priority Matrix

Created in February 2017
For FY 2018

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on the Atlantic coast through the cooperation of all program partners.*

Top Quartile of Bycatch Matrix Suggestions

| | <u>Sig. Change in mgmt w/in past 36 mo</u> | <u>Amt of reg discards</u> | <u>Amt of non reg discards</u> | <u>Prot Spp Interactions</u> | <u>Score</u> |
|---|--|--------------------------------|------------------------------------|----------------------------------|--------------|
| <u>Combined Fleets</u> | | | | | |
| Mid-Atlantic Gillnet | 3 | 4 | 2 | 5 | 14 |
| Southeastern, Atlantic and Gulf of Mexico HMS Pelagic Longline | 3 | 4 | 1 | 5 | 13 |
| New England Extra-Large-Mesh Gillnet | 0 | 4 | 2 | 5 | 11 |
| South Atlantic shrimp Trawl | 0 | 4 | 2 | 5 | 11 |
| South Atlantic, black sea bass Pot | 3 | 2 | 1 | 5 | 11 |
| New England Otter Trawl | 1 | 4 | 2 | 3 | 10 |
| Mid-Atlantic Pound Net | 1 | 4 | 2 | 3 | 10 |
| American Lobster Pots - SNE | 1 | 2 | 1 | 5 | 9 |
| New England Gillnet | 1 | 2 | 1 | 5 | 9 |
| Mid-Atlantic Small-Mesh Otter Trawl, Bottom | 1 | 4 | 1 | 3 | 9 |
| South Atlantic Otter Trawl | 0 | 4 | 2 | 3 | 9 |
| Mid-Atlantic Eel Trap/Pot | 1 | 2 | 1 | 5 | 9 |
| New England Fish Pots and Traps | 3 | 2 | 1 | 3 | 9 |
| New England Floating Trap | 1 | 2 | 1 | 5 | 9 |
| South Atlantic Large Mesh Gillnet | 0 | 4 | 2 | 3 | 9 |
| Mid-Atlantic Bottom Longline | 3 | 2 | 1 | 3 | 9 |
| Southeast Calico Scallop Trawl | 0 | 2 | 2 | 5 | 9 |
| South Atlantic small mesh gillnet | 1 | 2 | 1 | 5 | 9 |

Our vision is to be the principal source of fisheries-dependent information on the Atlantic coast through the cooperation of all program partners.

Additional Fleets of Importance



- Mid-Atlantic Purse Seine: Menhaden
- HMS species, South Atlantic dealer data not included in Trips dataset
- Pelagic Longline Fleet reports via logbooks which are not in the Trips data
- Snapper Grouper H&L Fleet: volatile and have bycatch issues

Our vision is to be the principal source of fisheries-dependent information on the Atlantic coast through the cooperation of all program partners.

ACCSP Funding Prioritization of the Recreational Technical Committee

March 2015

The Recreational Technical Committee was tasked with providing priorities for recreational data collection to be included in the annual ACCSP request for proposals process. Agencies were asked to prioritize recreational data collection needs within twelve items identified in the ACCSP recreational data standards across the shore, private, and for-hire modes. Also, an "OTHER" category was available to identify needs which may be of importance to a partner. Each agency ranked categories sequentially from '1' to '13' with a value of '1' representing a partner's high prioritization level. The cumulative values of rank were calculated separately for the North Atlantic, Mid-Atlantic, and South Atlantic regions. The number of angler-trips taken in 2014 (MRIP effort data) are included in the regional column headers as additional information on the size of the recreational fisheries in that region (e.g. the Gulf of Mexico had 18,587,742 angler-trips in 2014). Partners that span more than one region (ASMFC, GSMFC, GARFO, SERO, USFWS-NE and USFWS-SE) are ranked as coastal agencies. The GSMFC was included as MRIP methodologies are consistent in Atlantic and Gulf of Mexico. NMFS-MRIP and NMFS-HMS chose not submit priorities for ACCSP funding. The final overall prioritization rank was calculated as a simple average of the three regions plus coastal agency ranks. The ACCSP Advisors support the top four recommended priorities. The table of all rankings is presented below.

ACTION: The Recreational Technical Committee recommends the following recreational priorities for inclusion in the 2016 ACCSP Request for Proposals. 1) Improve precision of estimates (by increasing sample size); 2) Improve discard/release data; 3) Change from 2 month waves to monthly estimates; and 4) For-Hire logbook implementation and validation.

For reference, full 2015 rankings are listed below:

| Recreational Data Topic | 2015 Priority Level (1 is top priority, 13 is Lowest priority) | | | | |
|---|---|--|---|---|---|
| | North Atlantic (ME-NH-MA-RI-CT - NEFMC) 6,504,683 trips | Mid-Atlantic (NY-NJ-DE-MD-VA-MAFMC) 14,035,613 trips | South Atlantic (NC-SC-GA-FL-SAFMC) 17,358,930 trips | Coastal Agencies (ASMFC, GSMFC, GARFO, SERO, USFWS-NE, USFWS SA) | OVERALL PRIORITY (Regional average rank) |
| Improve PSE for estimates | 1 | 1 | 4 | 1 | 1 |
| Improve discard/release data | 5 | 2 | 1 | 6 | 2 |
| Change from 2 month waves to monthly estimates | 3 | 6 | 3 | 5 | 3 |
| For-Hire logbook implementation and validation | 2 | 3 | 6 | 7 | 4 |
| Integration / coordination of for-hire data reporting | 4 | 5 | 7 | 4 | 5 |
| Biological sampling for Recreational Fisheries (separate from MRIP) | 8 | 3 | 2 | 8 | 6 |
| Improve geographical resolution for major geographic boundaries | 5 | 8 | 7 | 2 | 7 |
| Collection more detailed fishing areas on intercepts | 7 | 12 | 5 | 3 | 8 |
| Effort Sampling Jan-Feb MD-FL | 11 | 7 | 9 | 9 | 9 |
| Improve Data Availability from 45 to 38 days | 9 | 10 | 9 | 11 | 10 |
| Catch Sampling Jan-Feb MD-FL | 12 | 9 | 11 | 11 | 11 |
| Adjust upstream extent of the survey | 10 | 11 | 13 | 10 | 12 |
| OTHER | 12 (Increase For-Hire coverage in wave 2&6) | 13 | 12 (invertebrate sampling, social-economic data collection, and turtle/dolphin take survey as add-on to MRIP effort survey) | 13 | 13 |



Atlantic Coastal Cooperative Statistics Program

1050 N. Highland Street, Suite 200A-N | Arlington, VA 22201
703.842.0780 | 703.842.0779 (fax) | www.accsp.org


This list includes dates for fiscal year 2017 in preparation for FY2018 funding. If you have any questions or comments on this calendar please do not hesitate to contact Elizabeth Wyatt, ACCSP Program Coordinator, at elizabeth.wyatt@accsp.org.

| | |
|-----------------------|---|
| March 1: | Start of ACCSP FY17 |
| May 8-11: | ASMFC Meeting/ACCSP Executive Committee Meeting and Coordinating Council Meeting; ACCSP issues request for proposals - Alexandria, VA |
| June 19: | Initial proposals are due |
| June 26: | Initial proposals are distributed to ACCSP Operations and Advisory Committees |
| Week of July 17: | Review of initial proposals for ACCSP Operations and Advisory Committees (webinar) |
| July 31: | Feedback submitted to principal investigators |
| August 21: | Revised proposals due |
| August 28: | Revised proposals distributed to ACCSP Operations and Advisory Committees |
| Week of September 4: | Preliminary ranking exercise for Advisors (webinar) |
| Week of September 18: | Annual Advisors and Operations Committee Joint Meeting (in-person; location TBD) |

Our vision is to produce dependable and timely marine fishery statistics for Atlantic coast fisheries that are collected, processed, and disseminated according to common standards agreed upon by all program partners.

Ranking Guide – Maintenance Projects:

| Primary Program Priority | Point Range | Description of Ranking Consideration |
|------------------------------|-------------|--|
| Catch and Effort | 0 – 10 | Rank based on range within module and level of sampling defined under Program design. When considering biological, bycatch or recreational funding, rank according to priority matrices. |
| Biological Sampling | 0 – 8 | |
| Bycatch/Species Interactions | 0 – 6 | |
| Social and Economic | 0 – 4 | |
| Data Delivery Plan | + 2 | Additional points if a data delivery plan to Program is supplied and defined within the proposal. |

| Project Quality Factors | Point Range | Description of Ranking Consideration |
|--|----------------------------------|---|
| Multi-Partner/Regional impact including broad applications | 0 – 5 | Rank based on the number of Partners involved in project OR regional scope of proposal (e.g. geographic range of the stock). |
| > yr 2 contains funding transition plan and/or justification for continuance | 0 – 4 | Rank based on defined funding transition plan away from Program funding or viable justification for continued Program funding. |
| In-kind contribution | 0 – 4 | 1 = 1% - 25% 2 = 26% - 50% 3 = 51% - 75% 4 = 76% - 99% |
| Improvement in data quality/quantity/timeliness | 0 – 4 | 1 = Maintain minimum level of needed data collections  4 = Improvements in data collection reflecting 100% of related module as defined within the Program design. Metadata is provided and defined within proposal if applicable. |
| Potential secondary module as a by-product (In program priority order) | 0 – 4 0 – 3 0 – 2 0 – 1 | Ranked based on additional module data collection and level of collection as defined within the Program design of individual module. |
| Impact on stock assessment | 0 – 3 | Rank based on the level of data collection that leads to new or greatly improved stock assessments. |


| Other Factors | Point Range | Description of Ranking Consideration |
|-------------------|-------------|---|
| Properly Prepared | 0 – 5 | Meets requirements as specified in funding decision document Step 2b and Guidelines |
| Merit | 0 – 5 | Ranked based on subjective worthiness |

Ranking Guide – Maintenance Projects: (to be used only if funding available exceeds total Maintenance funding requested)

| Ranking Factors | Point Range | Description of Ranking Consideration |
|------------------------|--------------------|--|
| Achieved Goals | 0 – 3 | Proposal indicates project has consistently met previous set goals. Current proposal provides project goals and if applicable, intermediate metrics to achieve overall achieved goals. |
| Data Delivery Plan | 0 – 2 | Ranked based if a data delivery plan to Program is supplied and defined within the proposal. |
| Level of Funding | -1 – 1 | -1 = Increased funding from previous year 0 = Maintained funding from previous year 1 = Decreased funding from previous year |
| Properly Prepared | -1 – 1 | -1 = Not properly prepared 1 = Properly prepared |
| Merit | 0 – 3 | Ranked based on subjective worthiness |

Ranking Guide – New Projects:

| Primary Program Priority | Point Range | Description of Ranking Consideration |
|------------------------------|-------------|--|
| Catch and Effort | 0 – 10 | Rank based on range within module and level of sampling defined under Program design. When considering biological, bycatch or recreational funding, rank according to priority matrices. |
| Biological Sampling | 0 – 8 | |
| Bycatch/Species Interactions | 0 – 6 | |
| Social and Economic | 0 – 4 | |
| Data Delivery Plan | + 2 | Additional points if a data delivery plan to Program is supplied and defined within the proposal. |

| Project Quality Factors | Point Range | Description of Ranking Consideration |
|--|----------------------------------|--|
| Multi-Partner/Regional impact including broad applications | 0 – 5 | Rank based on the number of Partners involved in project OR regional scope of proposal (e.g. fisheries sampled). |
| Contains funding transition plan / Defined end-point | 0 – 4 | Rank based on quality of funding transition plan or defined end point. |
| In-kind contribution | 0 – 4 | 1 = 1% - 25% 2 = 26% - 50% 3 = 51% - 75% 4 = 76% - 99% |
| Improvement in data quality/quantity/timeliness | 0 – 4 | 1 = Maintain minimum level of needed data collections  4 = Improvements in data collection reflecting 100% of related module as defined within the Program design. Metadata is provided and defined within proposal if applicable. |
| Potential secondary module as a by-product (In program priority order) | 0 – 4 0 – 3 0 – 2 0 – 1 | Ranked based on additional module data collection and level of collection as defined within the Program design of individual module. |
| Impact on stock assessment | 0 – 3 | Rank based on the level of data collection that leads to new or greatly improved stock assessments. |

| Other Factors | Point Range | Description of Ranking Consideration |
|-------------------|-------------|---|
| Innovative | 0 – 5 | Rank based on new technology, methodology, financial savings, etc. |
| Properly Prepared | 0 – 5 | Meets requirements as specified in funding decision document Step 2b and Guidelines |
| Merit | 0 – 5 | Ranked based on subjective worthiness |

Atlantic States Marine Fisheries Commission

Summer Flounder, Scup, and Black Sea Bass Management Board and Mid-Atlantic Fishery Management Council

May 10, 2017
1:00 – 5:45 p.m.
Alexandria, Virginia

Draft Agenda

The times listed are approximate; the order in which these items will be taken is subject to change;
other items may be added as necessary.

1. Welcome/Call to Order (*M. Luisi*) 1:00 p.m.
2. Board Consent 1:00 p.m.
 - Approval of Agenda
 - Approval of Proceedings from February 2017
3. Public Comment 1:05 p.m.
4. Scup Addendum XXIX for Final Approval **Final Action*** (*K. Rootes-Murdy*) 1:15 p.m.
 - Review Management Alternatives
 - Public Comment Summary
 - Technical Committee Report
 - Advisory Panel Report
 - Consider Final Approval of Addendum XXIX

**Council will also take action on Scup Framework 10*
5. Review Summer Flounder Draft Comprehensive Amendment Range of Alternatives for Commercial Issues (*K. Rootes-Murdy & K. Dancy*) 2:00 p.m.
6. Consider 2017 Black Sea Bass Recreational Measures **Final Action** (*K. Rootes-Murdy*) 3:30 p.m.
 - Review Final 2016 Recreational Black Sea Bass Harvest Estimate
 - Consider Management Response to the Final Harvest Estimate
7. Review White Paper on Potential Experimental Recreational Wave 1 Black Sea Bass Fishery **Possible Final Action*** (*B. Muffley*) **Joint Board and Council Action* 4:30 p.m.
 - Consider Postponed Motion to Allow Experimental Wave 1 For-hire Fishery
Motion to allow an experimental 2018 January/February (wave one), recreational, federally permitted for-hire fishery for black sea bass with a 15 fish per person possession limit, a suspended minimum size limit, and a zero discard policy to allow for barotrauma, and a mandatory trip reporting requirement.
8. Review White Paper on Summer Flounder Recreational Specifications (*B. Ballou*) 5:00 p.m.
9. Other Business/Adjourn 5:30/5:45 p.m.

The meeting will be held at the Westin Alexandria, 400 Courthouse Square, Alexandria, Virginia; 703.253.8600

MEETING OVERVIEW

Summer Flounder, Scup, and Black Sea Bass Management Board and Mid-Atlantic Fishery Management Council Joint Meeting

May 10, 2017

1:00-5:45 p.m.

Alexandria, Virginia

| | | |
|--|--|--|
| Chair: Mike Luisi (MD) Assumed Chairmanship: 10/15 | Technical Committee Chair: Greg Wojcik (CT) | Law Enforcement Committee Representative: Snellbaker (NJ) |
| Vice Chair: Bob Ballou | Advisory Panel Chair: Vacant | Previous Board Meeting: February 2, 2017 |
| Voting Members: ME, NH, MA, RI, CT, NY, NJ, DE, MD, PRFC, VA, NC, NMFS, USFWS (14 votes for Black Sea Bass; 12 votes for Summer Flounder and Scup) | | |

2. Board Consent

- Approval of Agenda
- Approval of Proceedings from February 2, 2017

3. Public Comment – At the beginning of the meeting public comment will be taken on items not on the agenda. Individuals that wish to speak at this time must sign-in at the beginning of the meeting. For agenda items that have already gone out for public hearing and/or have had a public comment period that has closed, the Board Chair may determine that additional public comment will not provide additional information. In this circumstance the Chair will not allow additional public comment on an issue. For agenda items that the public has not had a chance to provide input, the Board Chair may allow limited opportunity for comment. The Board Chair has the discretion to limit the number of speakers and/or the length of each comment.

| |
|---|
| 4. Scup Addendum XXIX for Final Approval (1:15-2:00 p.m.) Final Action* |
| <p>Background</p> <ul style="list-style-type: none"> • The Board initiated Draft Addendum XXIX at the December 2016 joint ASMFC/MAFMC Meeting. At the 2017 ASMFC Winter meeting the Draft Addendum was approved by the Board for public comment. (Briefing Materials) • The draft addendum proposes management alternatives for the start and end dates of the scup commercial quota periods. |
| <p>Presentations</p> <ul style="list-style-type: none"> • Overview of the Draft Addendum and public comment summary by K. Rootes-Murdy (Briefing Materials) • Technical Committee Report by G. Wojcik |
| <p>Board Actions for Consideration</p> <ul style="list-style-type: none"> • Select management alternative • Approve final document <p><i>*Council will also take action on Scup Framework 10</i></p> |

5. Review Summer Flounder Draft Comprehensive Amendment Range of Alternatives for Commercial Issues (2:00-3:30 p.m.)

Background

- The Board and Council initiated a comprehensive amendment on summer flounder management in 2014. The amendment was initially intended to reconsider many aspects of the FMP, including goals and objectives, commercial and recreational management strategies, and allocation.
- In February, the Board and Council review recreational components of the FMP to determine which items could be dealt with faster through a framework process. The Board and Council agreed to move forward with the amendment focusing on goals and objectives and commercial management strategies in 2017.
- The Fishery Management Action Team (FMAT) held commercial working group calls in April 2017 to consider data needs to develop draft management alternatives.

(Supplemental Materials)

Presentations

- Overview of draft range of alternatives for commercial issues by K. Rootes-Murdy & K. Dancy

Board Actions for Consideration

- Provide guidance on the development of management alternatives for commercial issues.

6. Consider 2017 Black Sea Bass Recreational Measures (3:30-4:30 p.m.) Final Action

Background

- In February, the Board and Council updated the commercial and recreational specifications for black sea bass after considering the results of the Black Sea Bass Benchmark Stock Assessment. The Board and Council approved increases to both the commercial quota and recreational harvest limit for 2017.
- The Board and Council maintained status quo recreational management measures for federal waters from 2016 and approved continuing ad-hoc regional management for 2017 with the specification that recreational harvest from Northern Region states (Massachusetts-New Jersey) not increase from 2016 levels.
- 2016 Preliminary harvest data through wave 6 (November/December) was released in late February and indicated higher harvest than previous projected. **(Supplemental materials)**

Presentations

- TC Review of 2016 black sea bass harvest estimates by G. Wojcik

Board Actions for Consideration

- Specification of final 2017 black sea bass recreational management measures for Northern Region states

7. Review White Paper on Potential Experimental Recreational Wave 1 Black Sea Bass Fishery (4:30- 5:00 p.m.) Possible Final Action*

Background

- In February, the Board and Council tabled a motion to allow an experimental recreational black sea bass fishery in wave 1 (January/February) in 2018:
Motion to allow an experimental 2018 January/February (wave one), recreational, federally permitted for-hire fishery for black sea bass with a 15 fish per person possession limit, a suspended minimum size limit, and a zero discard policy to allow for barotrauma, and a mandatory trip reporting requirement.
Motion by: (Council) Mr. DiLernia, seconded by Mr. King; (Board) Mr. Heins, seconded by Mr. Reid.
- Analysis on the tabled motion was completed by Council staff to evaluate the fishery and its potential impacts and provide considerations on the potential management action. **(Supplemental Materials)**.

Presentations

- Experimental Recreational Wave 1 Black Sea Bass Fishery by B. Muffley

Board Actions for Consideration

- Approve an experimental recreational wave 1 black sea bass fishery in 2018*

**Joint Board and Council Action*

8. Review White Paper on Summer Flounder Recreational Specifications (5:00-5:30 p.m.)

Background

- In February, the Board approved Addendum XXVIII for summer flounder recreational management in 2017. Since 2014, 4 addenda (including Addendum XXVIII) have been approved annually to continue regional management under conservation equivalency.
- A white paper outlining current recreational management specifications, annual process, and challenges was developed to identify how summer flounder recreational management can be improved. **(Supplemental Materials)**.

Presentations

- Review White Paper on Summer Flounder Recreational Specifications by B. Ballou

Board Actions for Consideration

- Provide guidance on addressing summer flounder recreational management issues associated with regional management and/or conservation equivalency

9. Other Business/Adjourn

DRAFT PROCEEDINGS OF THE
ATLANTIC STATES MARINE FISHERIES COMMISSION
SUMMER FLOUNDER, SCUP AND BLACK SEA BASS MANAGEMENT BOARD

The Westin Alexandria
Alexandria, Virginia
February 2, 2017

These minutes are draft and subject to approval by the Summer Flounder, Scup and Black Sea Bass Management Board.
The Board will review the minutes during its next meeting.

Draft Proceedings of the Summer Flounder, Scup, and Black Sea Bass Management Board Meeting
February 2017

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1. **Approval of agenda** by consent (Page 1).
2. **Approval of proceedings of October 2016** by consent (Page 1).
3. **Move to postpone Addendum XXVIII until confirmation of a new Secretary of Commerce and NOAA Fisheries can submit new regulations directly to the federal register** (Page 21). Motion by Tom Baum; second by Martin Gary. Motion failed (Page 26).
4. **Move to approve Option 5 (more coastwide consistency) from Section 3.2 with the removal of the following language: of particular note, Option 5 is calculated to achieve a 28-32 percent coastwide reduction (depending on the sub-option) less than the required reduction of 41 percent that Options 1-4 are designed to address** (Page 26). Motion by Jim Gilmore; second by Matthew Gates.
5. **Move to substitute by adopting Option 2, revised by substituting the words one inch minimum size increase with the words 30 percent reduction. As revised, the option will require the regions of Massachusetts, Rhode Island, Delaware through Virginia and North Carolina to enact management measures for 2017 aimed at achieving a 30 percent reduction in harvest relative to 2016, and require the region of Connecticut through New Jersey to enact management measures for 2017 aimed at achieving a 43 percent reduction in harvest; relative to 2016** (Page 28). Motion by Bob Ballou; second by Nichola Meserve. Motion modified (Page 35).
6. **Modified Motion: Move to substitute to adopt Option 2, revised by substituting one inch minimum size increase with 30 percent reduction. As revised the option will require the regions of Massachusetts, Rhode Island, Delaware through Virginia and North Carolina to enact management measures for 2017 aimed at achieving a 30 percent reduction in harvest; relative to 2016, and require the region of Connecticut through New York and the region of New Jersey to enact management measures for 2017 aimed at achieving a 43 percent reduction in harvest relative to 2016, and that states within a region may adopt mode or area specific regulations; as long as they are afforded to all states in the region.** Motion fails for lack of majority (Page 35).
7. **Main Motion: Move to approve Option 5 (more coastwide consistency) from Section 3.2 with the removal of the following language: of particular note, Option 5 is calculated to achieve a 28-32 percent coastwide reduction (depending on the sub-option) less than the required reduction of 41 percent that Options 1-4 are designed to address.** Motion carried (Page 40).
8. **Move to approve Section 3.3 Timeframe Option 2 for the 2017 and the ability to extend Addendum XXVIII through 2018** (Page 42). Motion by Jim Gilmore; second by Chris Batsavage.
9. **Move to substitute Section 3.3 Timeframe Option 1 for 2017** (Page 41). Motion by Adam Nowalsky; second by Eric Reid. Motion failed (Page 42).

INDEX OF MOTIONS (continued)

10. **Main Motion: Move for Option 2 for 2017 and the ability to extend Addendum XXVIII through 2018.** Motion carried (Page 42).
11. **Move to approve Addendum XXVIII as modified today** (Page 42). Motion by Emerson Hasbrouck; second by John Clark.
12. **Move to postpone final action on this addendum until the joint meeting in Kitty Hawk** (Page 42). Motion by Adam Nowalsky; second by Eric Reid. Motion fails (Page 43).
13. **Main Motion: Move to approve Addendum XXVIII as modified today.** Motion carried (Page 44).
14. **Move to approve Addendum XXIX for public comment** (Page 46). Motion by Steve Heins; second by Adam Nowalsky. Motion carried (Page 46).
15. **Motion to adjourn** by consent (Page 46).

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ATTENDANCE

Board Members

| | |
|--|--|
| Steve Train, ME (GA) | Adam Nowalsky, NJ, proxy for Asm. Andrzejczak (LA) |
| Doug Grout, NH (AA) | Roy Miller, DE (GA) |
| Dennis Abbott, NH, proxy for Sen. Watters (LA) | John Clark, DE, proxy for D. Saveikis (AA) |
| Ritchie White, NJ (GA) | Craig Pugh, DE, proxy for Rep. Carson (LA) |
| Sarah Ferrara, MA, proxy for Rep. Peake (LA) | David Blazer, MD (AA) |
| Raymond Kane, MA (GA) | Mike Luisi, MD (Chair) |
| Nichola Meserve, MA, proxy for D. Pierce (AA) | Rachel Dean, MD (GA) |
| David Borden, RI (GA) | Rachel Dean, MD (GA) |
| Bob Ballou, RI, proxy for J. Coit (AA) | Rob O'Reilly, VA, proxy for J. Bull (AA) |
| Eric Reid, RI, proxy for Sen. Sosnowski (LA) | Kyle Schick, VA, proxy for Sen. Stuart (LA) |
| Mark Alexander, CT (AA) | Michelle Duvall, NC, proxy for B. Davis (AA) |
| Lance Stewart, CT (GA) | Doug Brady, NC (GA) |
| Jim Gilmore, NY (AA) | David Bush, NC, proxy for Rep. Steinburg (LA) |
| Emerson Hasbrouck, NY (GA) | Martin Gary, PRFC |
| John McMurray, NY, proxy for Sen. Boyle (LA) | Sherry White, USFWS |
| Tom Baum, NJ, proxy for D. Chanda (AA) | Peter Burns, NMFS |
| Chris Zeman, NJ, proxy for T. Fote (GA) | |

(AA = Administrative Appointee; GA = Governor Appointee; LA = Legislative Appointee)

Ex-Officio Members

Greg Wojcik, Technical Committee Chair

Staff

Robert Beal
Toni Kerns

Kirby Rootes-Murdy

Guests

| | | |
|-------------------------|-------------------------------|--------------------------------------|
| Jack McGovern, NOAA | Dan McKiernan, MA DMF | Mike Toole, MD CBA |
| Derek Orner, NOAA | Katherine Hofmann, MD DNR | Joseph Sadler, MD CBA |
| Emily Gilbert, NOAA | Mark Belton, MD DNR | Mike Sadler, MD CBA |
| Mike Ruccio, NOAA | Russ Allen, NJ DFW | Steven Forsberg, Montauk, NY |
| Brandon Muffley, MAFMC | Larry Herrighty, NJ DFW | Steve Forsberg, Jr. Montauk, NY |
| Anthony DiLernia, MAFMC | Andy Shiels, PA Fish & Boat | Robin Scott, Margate, NJ |
| Kiley Dancy, MAFMC | Arnold Leo, E. Hampton, NY | Mike Shepherd, Linwood, NJ |
| Phil Langley, PRFC | Kevin Slattery, Onset, MA | Mike Rogers, Ofc. Rep Pallone, NJ |
| Matt Gates, CT DEEP | Aaron Kornbluth, PEW | Jonathan Atwood, Ofc of Asm |
| Jason McNamee, RI DEM | Purcie Bennett-Nickerson, PEW | Andrzejczak, NJ |
| Nicole Lengyel, RI DEM | Zach Greenberg, PEW | Bob Martin, NJ DEP |
| Chris Batsavage, NC DNR | Joseph Gordon, PEW | |

These minutes are draft and subject to approval by the
Summer Flounder, Scup and Black Sea Bass Management Board.
The Board will review the minutes during its next meeting

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The Summer Flounder, Scup and Black Sea Bass Management Board of the Atlantic States Marine Fisheries Commission convened in the Edison Ballroom of the Westin Hotel, Alexandria, Virginia, February 2, 2017, and was called to order at 8:00 o'clock a.m. by Chairman Michael Luisi.

CALL TO ORDER

CHAIRMAN MICHAEL LUISI: Good morning everyone. I would like to call the meeting to order; a meeting of the Summer Flounder, Scup and Black Sea Bass Management Board. My name is Mike Luisi; and I am a Representative from the state of Maryland.

APPROVAL OF AGENDA

CHAIRMAN LUISI: We've got a lot on the agenda here today, but to start I would like to suggest a modification to the agenda.

Staff approached me and asked if we can rearrange some of the items on the agenda, to be sure that we make sure we cover and are able to spend the amount of time that is needed on the action items of the agenda. There are two suggestions, the first is to just rearrange under Item 4, the Technical Committee Report and the Advisory Panel Report.

Staff indicated that it would be just a better flow into the discussion when we're considering Addendum XXVIII for final approval later. The second modification is to move Item 5, the Update on the 2015 Black Sea Bass Commercial Landings and 2017 Harvest Specifications to the end of the meeting, to follow; Setting the 2017 Scup Recreational Fisheries Specifications.

Is there any opposition to those modifications to the agenda today? Seeing none; we'll consider the agenda approved as modified.

APPROVAL OF PROCEEDINGS

CHAIRMAN LUISI: Now moving on to the approval of the proceedings from the October, 2016, is there any objection to the approval of the proceedings from 2016? Okay seeing none; the proceedings are approved.

PUBLIC COMMENT

CHAIRMAN LUISI: Okay down to Number 3 for Public Comment. It is during this time in our meetings where we reserve some time for the audience to discuss issues that are not on the agenda. However, it has been asked of me as Chair of this Board to consider allowing some flexibility under our normal operating procedures for public comment.

Therefore we have a list of a few individuals who would like to offer their thoughts; whether it is on items to be discussed later or not. Therefore, I'm going to turn to our first speaker. We have Commissioner Bob Martin, from the New Jersey Department of Environmental Protection. Bob is at the microphone, and Mr. Commissioner the microphone is yours.

COMMISSIONER BOB MARTIN: Thank you, Mr. Chairman, and thank you for allowing me to speak this morning about a matter of great importance to the state of New Jersey. I'm here representing the state of New Jersey and the Governor of New Jersey. I am now in my eighth year of Commissioner of DEP; and during my tenure in New Jersey, have always worked cooperatively with the Commission, the other states of the compact, the National Marine Fisheries Service, and we've always played by the rules and wanted to work cooperatively with everyone. We understand and strongly support the need to sustainably manage the Atlantic coast fisheries, and we always have. In 2013, the regionalization of Connecticut, New York, and New Jersey was adopted; even though we did not support it.

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We tried and it has not worked. Now I am here today, because of the options being presented for summer flounder quotas for New Jersey for 2017; which would put it bluntly, destroy recreational summer flounder fishing in my state. Only about 15 percent of the fluke in New Jersey waters are at or above the 19 inches in length that is being proposed.

This would make it extremely unlikely that most of the recreational anglers would be able to find a fish they could keep. As a result of any of these options, New Jersey would be hit disproportionately hard, and essentially would kill 20,000 jobs and gut a 1.2 billion dollar industry.

This is completely unacceptable to the state of New Jersey; so I come to you with two important requests, to support adding a sixth option to Addendum XXVIII to maintain the status quo for recreational summer flounder fishing, and to vote to approve that sixth option. I make this request for four simple reasons.

One, the data at which any of these changes of status quo would be based on is terribly flawed. The benchmark stock assessment is old. The model used for evaluating the health of the fishery is unreliable and out-of-date, and New Jersey's own data shows that the summer flounder stock is healthy.

I strongly urge you not to move forward with changes to the size limit, bag limit, and length of season based on questionable data and an outdated model. We share; we all share in this room the difficult task of managing the fisheries based on sound science. In this case the science is clearly not where we want it to be.

Let me first address the data collection through the MRIP program. As you know the National Academies of Sciences Engineering and Medicine recently released a report evaluating MRIP. The report suggests 38 changes to that

program. Many of these suggest changes to focus on data collection. They emphasize the urgent need to improve the way the data is collected.

For example, the intercept method of data collection is inadequate, because the sample sizes are way too small. Incredibly small sample sizes do not represent the whole population. Here is an example of one of those flaws. Several years ago MRIP personnel collecting data on black sea bass intercepted a boat in New Jersey with two anglers onboard.

One had caught 7 fish the other had caught 14 from a possible bag limit of 15. From a single intercept, MRIP expanded the catch to 150,000 fish. That single intercept represented 50 percent of New Jersey's total black sea bass harvest in 2015. They drew that conclusion based on two fishermen who had a very good day.

That is not only unscientific, it defies common sense. There are numerous other examples from New Jersey charterboat captains, which I've talked to over the last several weeks; in fact over the last several years, and many of these talk about other issues about the certain intercepts that have come to them only because they continue to catch fish, and not go after and talk to the boats that don't catch any fish. To compound the problem, MRIP is designed to show broad performance trends in the recreational fishing industry. It is not designed to be compared annually as currently being done.

Misapplying long-term data collection system by using it for short-term analysis makes no sense whatsoever. The whipsaw of annually going through quotas is unsettling and disruptive to the industry, and completely unnecessary. Although the National Academies report concluded that some progress had been made; it also concluded that MRIP still had some serious problems.

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These challenges are serious, and get to the heart of the matter. We cannot make solid, scientific-based decisions based on data collection program that after ten years still has, according to National Academy of Sciences, statistical challenges. In addition to question of how data is collected, let's not forget the most recent benchmark stock assessment dates back to 2013.

The only way to correct this problem is to undertake a benchmark stock assessment now. New Jersey deems it important to undertake that assessment as soon as possible, and we are willing to provide a cost share from the state of New Jersey to get that started immediately; and I wish that all the other states, and request that all the other states join in as well, not just in doing that but it is also to contribute to that.

Let me now turn to the methodology being used for decisions for annual quotas. The current methodology is inadequate. It relies only on the age of the fish and ignores such important aspects as size, and sex. As a result this methodology has unintended consequences of encouraging the removal of females from the stock, because females tend to mature faster and grow larger than the males.

Increasing the minimum size requirement actually encourages the taking of females. No one has to be a biologist to know that reducing the population of females from the waters will lower recruitment rates and reduce the availability of the population to increase. As you all know, a new more accurate, more sustainable sex, age, length methodology is being developed by a team led by Dr. Patrick Sullivan of Cornell.

Again that initiative will correct the flaws that we've identified. As we've seen here from Dr. Sullivan's modeling, we know that this model would significantly improve our knowledge of the size and composition of a summer flounder

fishery. That would increase the ability to achieve the goal we all share, ensuring the summer stock continues to thrive.

The consequence of those shortcomings of the current modeling, Mr. Chairman, will be profound; both on a fish stock and on the recreational fishing industry. These shortcomings alone argue strongly for maintaining the status quo, until data collection is improved and new modeling by Dr. Sullivan and his team are used.

I also want to underscore that New Jersey's summer stock flounder stock is healthy. We have decades of data to prove that. We've been carrying out New Jersey ocean trawl surveys for nearly 30 years. This includes population trends for summer flounder. Our survey consists of five cruises a year through 35 randomly selected stations during each cruise; covering depths of 90 feet. In total that's 175 pulls per year. Our data has consistently shown that our fluke population has remained stable since 1992, and that in fact shows a slight but measurable improvement. That is what I mean by reliable, scientifically sound data. Apart from the unreliable data and the old methodology, there is yet another complication.

The recent directive from the white house that no new federal regulations are to be issued until the new president's appointees are in place and O and B has reviewed those rules. This ties NOAAs hands and NOAA Fisheries hands until new leadership is in place at Department of Commerce and at NOAA.

The new administration has the right to set NOAAs policies. This creates a high level of uncertainty about the policies of the new administration and how things are going to be pursued going forward. It could be months before those positions are filled, and it could render a decision on status quo and other issues going forward.

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That is why I'm recommending that we stay with status quo at this point in time, at least until new decision makers are in place and a new benchmark stock is assessed; that is the best way to approach what we're going forward with. If the Commissioners in this room cannot accept status quo, then I strongly ask that you support postponing any actions until NMFS has clear authority to move forward and publish regulations in the Federal Register.

Mr. Chairman and members of the Management Board, I want to leave you with one final thought. If the Commission does not vote to approve proposed new option that I've requested of status quo, or to postpone it, the state of New Jersey will use every legal, administrative and political tool available to us to protect New Jersey's recreational summer flounder industry from the decision that we believe will destroy our industry.

We'll do everything to prevent the destruction of 1.2 million dollar industry that directly employs 20,000 people in our state and attracts tens of thousands more people to our coastal communities every year. There is nothing in Magnuson-Stevens that prohibits you from supporting status quo. I strongly urge you today to maintain the status quo for '17; or at the very least postpone any action. I thank you for your cooperation. I thank you for the time this morning, and I appreciate working with you. Thank you very much on the behalf of New Jersey.

CHAIRMAN LUISI: Thank you, Mr. Commissioner. I appreciate your time today and your thoughts. Next I have Mike Rogers with Congressman Pallone's office. Mike, do you want to step to the microphone?

MR. MICHAEL L. ROGERS: Thank you again for the opportunity to speak, and again I'm here representing my boss; Congressman Pallone from the Sixth District of New Jersey. I want to thank Chairman Grout, Vice-Chairman Gilmore,

and all members and staff of the Atlantic States Marine Fisheries Commission; for allowing me to make a statement about the summer flounder quotas for 2017 and 2018, and for the work you do to serve fishermen in coastal communities.

While I am unable to make this statement in person, please be assured that this issue is a priority for me. I also want to thank the New Jersey members of the Commission and especially want to thank New Jersey DEP Commissioner Martin for his efforts to protect New Jersey fishermen from these onerous cuts. On December 21st, NOAA announced finalized regulations to reduce the acceptable biological catch, recreational and commercial quotas for summer flounder in 2017 and 2018. These reductions are severe. The summer flounder ABC will be reduced 29 percent in 2017, and 16 percent in 2018. The recreational and commercial limits would both be reduced by approximately 30 percent in 2017 and 16 percent in 2018.

There is no doubt that these reductions will have a significant negative impact on the state of New Jersey, where the recreational and commercial fishing industries generate about 2.5 billion dollars annually; and represent tens of thousands of jobs. Fishermen and their families will not be the only ones who suffer if these dramatic cuts are implemented. The tourism and boating industries along the shore will lose business as well.

I represent the New Jersey Sixth Congressional District, and there are many coastal communities in my district, which will be harmed if these regulations go into effect. That is why I have opposed these cuts ever since NOAA proposed them last year; working with my New Jersey Congressional colleagues.

By reaching out to NOAA, testifying before the Mid-Atlantic Fishery Management Council, and offering a statement to a public hearing

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conducted by this body, all to prevent these cuts from going into effect before we know whether they are actually necessary at all. All of us want a healthy fluke population. Having a sustainable population benefits both our economy and our environment.

However, members of the fishing industry have real concerns about the science and methodologies used to justify these draconian cuts. Last month I led a number of my congressional colleagues in sending a letter to former Commerce Secretary, Penny Pritzker, calling on her to use her emergency powers to prevent these damaging regulations from going into effect, and direct NOAA to reexamine its methodologies and conduct a new benchmark, summer flounder assessment before making a decision to reduce summer flounder quotas.

There are many compelling reasons to question the decision to cut summer flounder quotas, but the underlying issue is that we need to comprehensively change both how and how often we conduct stock assessments. In the letter we pointed out just one example of the questionable methods used to justify these cuts.

The Marine Recreational Information Program, MRIP, estimated that Connecticut and New York recreational fishermen greatly exceeded limits on summer flounder in 2016. A major reason for this supposed overfishing was an estimated increase in fishing trips in July and August, 2016. However, in order for MRIPs numbers to add up, there would have needed to be a 68 percent increase in fishing trips for Connecticut in those months, and a 35 percent increase for New York in those same months.

These supposed increases are dubious. According to the Jersey Coast Anglers Association, from 2007 to 2014, there was a drop of eight million fishing trips from New York to North Carolina. Another flaw is NOAA's reliance on annually estimating the number of

flounder out in the sea, as opposed to relying on regularly updated scientific statistics and surveys.

Commissioner Martin put it well at an event last week and today, when he described the inherent weakness of relying on this method, which is essentially a guess about stock population. NOAA should instead use models that cover multiple years, which will bring certainty to the industry and better allow us to measure which conservations work and which do not. Another issue I've heard from my constituents is the size limit of 19 inches for summer flounder. Most summer flounder larger than 18 inches in length are female.

If we're serious about growing the summer flounder stock, we should not be instituting policies that disproportionately remove females from the population. Additionally, this policy is going to result in more fish smaller than 19 inches being thrown back into the ocean after being caught. As any fisherman can tell you, many of these fish do not survive being caught and thrown back in.

Again, if we're serious about increasing the population of summer flounder, why are we putting regulations in place that will result in more fish being killed? These are just a few examples of why so many fishermen are frustrated and lack confidence in the data that NOAA uses to guide quota reductions.

Anglers have sacrificed year after year, and have yet to see real benefits for their sacrifices. New Jersey has made its view on these reductions clear. I and other members of the Congressional Delegation, the Governor and Commissioner Martin, have made our voices heard. The State Assembly has also passed a resolution calling for status quo to be maintained until a new assessment can be conducted.

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In short, these cuts are unjust; based on questionable science, and NOAA should reexamine how it conducts these stock assessments before making decisions that threaten the livelihoods of so many New Jersey anglers and communities. The Commission should act on this, and take any and all steps that it can to protect recreational fishermen; especially to minimize the negative impacts of these quota cuts. Thank you.

CHAIRMAN LUISI: Thank you very much for your thoughts; and please thank the Congressman for providing his thoughts for us here today. Okay I have a couple other names on the list; but it appears from what was written down that additional comments may be directed on the options themselves. I will ask Robin Scott, would you be providing thoughts on a specific option as we debate it after moving on through the agenda? Is that your intent? Okay if it is a different option then please, come to the microphone.

MS. ROBIN SCOTT: Good morning. I'm Robin Scott; Margate, New Jersey, I'm the owner of a very tiny bait-and-tackle shop, 54-slip marina, and I rent boats and charterboats for a living, full service. We sell Tohatsu outboards. We're starting year 59, so I am one of your astute scientists out there with numbers and size and weights and anglers; and how many fish they bring in. Your stakeholders are obviously people that can contribute.

I would like you to consider, I am here to support Commissioner Martin; the fact that he made the trip and has spoken so well with our issues in New Jersey. I am to go one step further. I propose that you add a new option of matching status quo in the state of Delaware from the 2016 season for fish at 16 inches, which would entirely eliminate putting the pressure on the female breeders while we wait for new representatives to be elected and confirmed. That would seem to be the option that would genuinely grow the stock and allow

us not to take even more breeding females. Thank you.

CHAIRMAN LUISI: Thank you, Ms. Scott. That concludes the list for now. There may be an opportunity, depending on how long the discussion takes place at the Board to have additional public comment; once we have a motion on the table. But I will reserve the right to that comment, depending on time and how we move on.

Let's talk about that for a second. I think it would be an understatement to say that the issues in front of us right now are just important. It is coastwide in its reach and given the testimony we've already heard, there are certainly consequences that will come from decisions that we make today.

With that said, I just want to be mindful and I want you all to be mindful that we have about 40 minutes on the agenda for this discussion this morning. We have other boards that are meeting after this throughout the day; and I am going to do my best to try to focus our conversation to stay within the time limits that we have.

Just please be mindful of that. We have a few presentations that both Kirby and Greg are going to give. I am going to hold off at this point right now on any comments or any motions. But I am going to let Kirby get through his presentation, and then Greg is going to provide us some thoughts; and I'll look out to the board for motions as how to move forward. But before I do, I saw Mike's hand. Mike, do you want to make a point?

MR. MIKE RUCCIO: Good morning, and good morning to the Board. I don't want to get into a rebuttal of the comments that were offered. I appreciate those very much. I think everyone at the table, including the Service, appreciates the seriousness of what we're about to discuss; and no one enters into this lightly.

But I did want to speak a bit to the federal government's ability to issue regulations, because I think that is germane. It is true that right now we are under a regulatory freeze. However, we receive additional guidance daily. The work of the federal government continues. I think it would be critical that the Board continue its process, and that the Agency will continue its process.

We have numerous rules that are in process, slated for publication as soon as the regulatory ban is lifted. Certainly we'll work with whoever is appointed and selected to the political appointee positions within the agency; but the agency has not shut down, and I don't think it would serve us well to postpone, with the rationale being that we can't issue rules.

Our work continues, I think this Board's work should continue. We will have more information undoubtedly, by the time we're co-convened with the Council in Kitty Hawk. There is a process to even issue rules now. Certain exemptions are allowed, there is an additional clearance process with the Office of Management and Budget, so I just wanted to speak to that point specifically.

CHAIRMAN LUISI: Thank you, Mike for that thought. I may come back to you later, depending on how the conversation goes, regarding timing. I know that there is an issue with taking action dependent on Board action. If everyone remembers back in December, both the Board and the Council moved for conservation equivalency and for the Board to consider conservation equivalency. If conservation equivalency is not met we find ourselves in the position where NOAA would be looking to establishing the non-preferred alternative along the coast. I think the timing of all that is going to be important to our discussion later; so Mike, I might come back to you on that.

CHAIRMAN LUISI: But for now I'm going to turn to Kirby. Kirby is going to provide us a presentation reviewing the options on the public comment summary and the Advisory Panel report; so Kirby, when you're ready.

SUMMER FLOUNDER DRAFT ADDENDUM XXVIII FOR FINAL APPROVAL

MR. KIRBY ROOTES-MURDY: For the presentation I'm going to go through, I'm going to review the management options very quickly; as you have all seen this, a number of times, both in the public comment period and at the joint meeting in December. Get into the public comment summary, specifically those comments that were offered up during the last month.

Then I'm going to walk through the advisory panel report, and then focus on some of the discrepancies and language and tables that have come up through the Recreational Working Group's process, address those, and then I'll answer any questions. After I'm done with that then we're going to turn it over to Greg to give the Technical Committee report on the options in the addendum. After that's done then it's for the Board to consider final action on the document.

REVIEW MANAGEMENT OPTIONS

MR. ROOTES-MURDY: As you all know this addendum was initiated back in October at the ASMFC Annual Meeting, at the joint meeting in December the Board approved it for public comment. We went out for public comment last month, and today you guys are taking final action on this document; or considering final action on this document.

First I'm going to focus on the default approach within the summer flounder FMP, and then move on to the alternative approaches. As Mike mentioned, conservation equivalency was selected by the Board and Council in December.

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Under that approach we have Addendum VIII, which lays out state-by-state allocations.

I'm going to put that up on the board real quick, just to show you again what those would be. These are based on preliminary data projected through Wave 6. Again, these numbers would change once we get final data; but this is preliminarily what the allocations would be if the Board defaults back to state-by-state management under conservation equivalency.

The other thing to keep in mind is that as part of our kind of default process for summer flounder, if a state or region doesn't implement measures to address the reduction the Board agrees to, precautionary default measures would be applied to the state or region. The Board and Council approved precautionary default measures of 20 inches minimum size, two fish possession limit, and an open season of July 1, through August 31.

Next moving on, I want to talk about the alternative approaches that are in the document, starting on Page 10 through 16. As you all know there are five alternative approaches, five options. Underneath each of them there is the ability to have it in place for either one or two years, and I'm just going to briefly walk through those again.

First, Option 1 is titled Fish Sharing. Under this approach regions that are under their 2017 allocation, based on 1998 proportions of catch, they stay status quo; in terms of their harvest levels and their management measures. For those regions that would be over their 2017 allocation, they take a reduction. By those other regions staying status quo, there are additional fish that allow for them to have a smaller reduction than they would if they were going at it state-by-state. Option 2 is where a one inch increase is applied across the entire coast. In this approach that adjusts the harvest targets for all the regions. Under this approach also, it should be noted that Rhode Island's

reduction would be approximately 32 percent and not 34 percent. For the states of Connecticut through New Jersey, they take an additional reduction given their one inch increase would not still move them underneath the 2017 allocation of their pooled targets; and so they take further reduction in their season and bag limit.

Option 3 is where a 30 percent reduction is applied coastwide. For those regions that are over their 2017 allocation, which would be Rhode Island and Connecticut through New Jersey. They take the remainder of that reduction needed to keep harvest at the coastwide level to the coastwide harvest limit.

That means that their reduction is approximately 42.6 percent. Option 4 is similar to Option 3 in that it lays out that all regions would go up an inch in their minimum size; and as part of their 30 percent reduction process. For the states of Rhode Island and Connecticut through New Jersey, they would take the additional reduction that's needed as going up one inch as laid out in Option 2 wouldn't fully address the coastwide reduction.

Therefore, they would take an additional percentage reduction, which is approximately 42.6. Option 5 does not specify harvest targets nor does it specific regional reductions. What it proposes is that coastwide all regions with the exception of North Carolina go up an inch in their minimum size.

Additionally, all regions would have no more than a four fish possession limit. For the regions of Connecticut through New Jersey there is the potential for a three fish possession limit, but seasons remain status quo relative to 2016. Now for the timeframe, the timeframe option lays out that there are two approaches.

The first would be for whatever the selected alternative is that I just walked through. One of those five would be in place for one year, 2017.

The second timeframe option would be for it to be in place for 2017; and the ability to continue into 2018. It's a two year implementation timeframe.

PUBLIC COMMENT SUMMARY

MR. ROOTES-MURDY: Next I'm going to move on to talking about the public comment summary. As you all know there were public hearings held in the month of January through the states of Virginia through Massachusetts; 224 people attended across eight states. It should be noted that North Carolina scheduled a public hearings, but that there was no public attendance at it; so we haven't included it in this summary.

In terms of written comments submitted, a total of 4,334 comments were received. Nine groups and organizations provided comments. In terms of the total comment summary, a majority of the comments were in favor of remaining status quo; in terms of management measures relative to 2016. In terms of comments that were in favor of options that were included in the document, which status quo for all regions was not included as an option in the document, the majority of folks who were in favor of an option in the document was Option 5.

Options 1 and 2 were also noted as having received the second most support and commonly second choice, if say Option 5 was not selected. One thing to keep in mind is that I mentioned that over 4,000 comments were received. A majority of those comments were attributed to an online petition that was submitted, 4,101 signatures and comments associated with that were submitted in the public comment summary that was sent to the Board. That petition specifically outlined that coastwide measures should stay the same relative to 2016; and the catch limits for 2016 should be carried over to 2017.

But this is also laying out in this table here what the associated timelines that people indicated a preference for. As you can see that it didn't always add up directly, because people do not always give a timeline option with their preferred alternative for Options 1 through 5. Reasons sighted in support of staying status quo.

A number of comments focused on disagreement over the MRIP harvest estimates at the state, regional, and coastwide level. Additionally there were concerns over the economic impacts to coastal economies that Options 1 through 5 could pose to their region. Other concerns focused on an increase in the size limit would potentially target more females and further exacerbate negative impacts that are currently underway relative to the resource.

Other comments focused on the status quo should be in place until a new benchmark stock assessment is completed. For reasons sighted in support of Option 5, there is an interest in maintaining the current season length. There is also a tolerance indicated for going up an inch and that that wouldn't significantly curtail the fishery at the state and regional level.

But there was concern that Options 1 through 4 would pose more significant economic impacts to local economies.

ADVISORY PANEL REPORT

MR. ROOTES-MURDY: Now for the AP report. AP members from both the Commission and Council provided comments. Of the AP members who were in attendance, four indicated that catch limits and management measures should remain status quo relative to 2016.

Those concerns that were raised in support of that approach sighted similar reasons that I've already walked through; concern over MRIP estimates, economic impact, and disagreement over what the stock assessment results

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indicate. Three indicated a preference for Option 5, and one indicated a preference for Option 1, and two were in favor of Option 2 as a secondary choice if Option 1 and 5 were not selected.

All right so now I'm going to walk through some of the discrepancies in the language versus the tables. A few weeks ago the Summer Flounder Recreational Working Group, who helped pull together the options for this document, a number of members on that group brought up that there was a discrepancy in how the language was indicating the reduction that should take place; relative to what the table was showing for the reduction and the subsequent harvest targets.

One of the key things here is that there was a proportional reduction relative to an allocation, based on 1998 catch levels that were being applied; and not an equal reduction across those regions. For example, the state of Rhode Island in the draft addendum option, the tables indicate that they would have a 32 percent reduction approximately for Option 2.

When you apply a proportional reduction relative to their allocation, it is actually closer to a 59 percent reduction. For Option 3, it moves from a 43 percent or 42.6 percent up to a 51 percent reduction, and then for Option 4 it increases it from an approximate 42.6 percent reduction to a 58 percent reduction. The Summer Flounder Working Group came back and evaluated this, and they were of the mind that the group's intention was that the reductions listed in the tables was the intended way for reductions to be applied to these regions; and not by the prescriptive language in the text for these options. Greg is going to walk through later on the Technical Committee's review of that. Generally though, they agreed and confirmed that conclusion. Then subsequently the Recreational Working Group developed revised language and tables to

address these discrepancies and make corrections.

As I said before, it's important to understand how these reductions change. The proportional reduction relative to '98 allocation is one where you're applying the reduction based on that allocation and not necessarily how that region performed in 2016; relative to the overage we would be seeing for 2017.

The other thing to keep in mind is that that approach also evaluates harvest from 2016 for 2017, as we normally do, to base regulatory changes on; and does not actually address how a region performed relative to their say projected harvest for 2016. That is an important point to keep in mind, because previous addenda that we've had on regional management have not specified and held regions to a target per se.

There isn't the ability to go back and try to hold states to a target that was not in place as part of the addendum. To help explain this a little bit further, I've given an Option 3 here. Under Option 3, every region takes a 30 percent reduction. Regions over their '98 allocation for 2017, again based on 2016 harvest, take the remainder of the reduction.

Now that means that there is an approximate 230,000 fish left over when all regions take a 30 percent reduction. To still move those regions that were over their harvest, relative to that allocation, down to the 2017 recreational harvest limit, there is a scaled proportion that we apply. Rhode Island's proportion of the '98 harvest is 5.7 percent.

To address this 230,000 fish that is scaled up to 9 percent. For Connecticut through New Jersey, their pooled allocation of '98 proportions adds up to approximately 60.4 percent. That's scaled up to 91 percent. Associated to that then we applied the additional fish. It is an additional

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reduction that's added on top of the 30 percent reduction.

When you do that it increases the reduction disproportionate relative to that states harvest, when you compare it to the coastwide level. It doesn't account for the magnitude of harvest between the regions. For example, Rhode Island's share of the 2016 coastwide harvest was approximately 4 percent; but under this approach if you took the language literally, they would be taking a 51 percent reduction.

For Connecticut through New Jersey, their share of the 2016 coastwide harvest was approximately 82.9 percent. When you apply that proportional allocation for reduction, their reduction doesn't change significantly; given the magnitude of their harvest relative to the coastwide harvest.

It is important to understand that this change in the reduction for regions of Rhode Island would violate one of the recommendations the Working Group had, and that was to not have a region take more than a 50 percent reduction. Again, another way to look at this was these alternatives were developed as a way to ameliorate or improve the reduction scenarios that regions would be facing under state-by-state allocations. In terms of understanding an equal percentage reduction for Option 3, regions that are below their '98 allocation for 2017 take a 30 percent reduction. That would be the states of Massachusetts, Delaware through Virginia, and North Carolina. At a 30 percent reduction for 2017, their associated pooled target would be 185,000 fish. Regions that are above their '98 allocation based on again 2016 harvest would be responsible for the remainder of that reduction.

When you combine Rhode Island and Connecticut through New Jersey's harvest for 2016, it is approximately 1.83 million fish. Now, they need to then get down to the remaining harvest that is allowed to not exceed the 2017

RHL, which is approximately 1.05 million fish. To get from 1.8 to 1.05, is an approximate 42.6 percent reduction; when you apply that to each of the regions harvest for 2016, it is less of a significant reduction than if you were taking a proportional reduction based on their allocation.

I'm now going to walk through the revised language very briefly on this. There was a letter sent out to the Board on Friday last week that laid out revised language for Options 2 through 4, as well as revised tables. In that letter it highlighted where the changes in the reduction were, as well as correcting mathematical errors.

This option as I said for Option 2 starts by applying a one inch increase to all regions, and projecting the regional harvest that would occur for 2017. If a region's projected harvest is below its combined 1998 based allocation for 2017, which are the states of Massachusetts, Rhode Island, Delaware through Virginia and North Carolina, the projected regional harvest becomes the regions 2017 harvest target.

These regions take no further cut, and the reduction rate is then achieved by the one inch increase; and they forfeit the rest of their 2017 allocation projected to be unused. The region with its projected harvest still above its '98 based allocation for 2017 is the recipient of the shared fish; which is added to the 2017 allocation to generate its 2017 harvest target, and is responsible for the remainder of that coastwide reduction.

This is what the new associated table is with the corrections. As noted, Rhode Island's harvest reduction changes, in terms of the percentage. The harvest target for the states of Connecticut through New Jersey changes, and then Delaware through Virginia's harvest target is slightly altered as is North Carolinas.

Just for each of these three options I'm walking through, I have broken them out so that you

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can hopefully see them better on the screen. They are included in the letter together. For Option 3, any region in which the 2016 projected harvest is below its combined '98 based allocation for 2017, takes a 30 percent reduction; again, the states of Massachusetts, Delaware through Virginia/North Carolina.

The resulting projected regional harvest becomes the regions 2017 harvest target. The regions in which the 2016 projected harvest is above their combined '98 based allocation for 2017, Rhode Island and Connecticut through New Jersey, are responsible for the remainder of the coastwide reduction. This reduction burden is shared equally among those regions.

This is the associated revised table. As you can see, Rhode Island's harvest target is slightly adjusted, but it has the same reduction percentage as Connecticut through New Jersey. Delaware through Virginia's harvest target in numbers of fish is slightly changed as well. All right, bear with me, and we're just going to go through one last one. The revised language for Option 4 reads that any region in which 2016 projected harvest is below its combined '98 based allocation takes a 30 percent reduction. This region must include a one inch size increase.

If a one inch size increase achieves more than a 30 percent reduction, these regions can liberalize other measures accordingly. The projected regional harvest from the 30 percent reduction becomes the region's 2017 harvest target. The regions in which the 2016 projected harvest is above their combined 1998 based allocation for 2017, Rhode Island, Connecticut through New Jersey, are responsible for taking the remainder of the coastwide reduction necessary to achieve the 2017 RHL.

This reduction burden is shared equally among the regions, and this reduction must include a one inch size increase. The last associated table that has been revised is Option 4's table. As

you can see the reduction percentage changes slightly for Rhode Island, and the harvest target changes for Rhode Island and Massachusetts.

The harvest target changes slightly for Connecticut through New Jersey. It is the same harvest target you have for the revised Option 3 table, as well as Delaware and Virginia's harvest target matches Option 3's table. Those are the revised changes to the language in the tables for Options 2 through 4. I will take any questions now if folks have them.

CHAIRMAN LUISI: Everybody got that? I'll be now asking for volunteers to the Striped Bass Workgroup if anybody would like to join in. Let me just make a comment before we get into questions. Kirby went through all the details of how these calculations were done. But the point of it all is that as the workgroup put together the tables, we were using the tables as the means to deciding which of those options were reasonable to expect states to be able to implement.

In the draft document the text didn't necessarily match the math that went into calculating those tables. The point of going through all of this and the point of the letter that was sent to you with the revised language is that when we get to the point in time today, if we get to the point in time today, we were considering an option.

We need to clarify in that motion that we would like to change the language from the draft document to what Kirby just went through; as far as the revised language. It's hard to think on the fly when you're looking at all those numbers. But I'll tell you that there was a tremendous amount of work that went into making sure that we have a document where the text and the intent of the workgroup match the tables that are presented to you.

Just know that a lot of work went into this and I hope that summarizes. Instead of in the weeds

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of the numbers, just that is kind of where we are at this point right now. Before we turn to the Technical Committee report, does anybody have any questions for Kirby regarding his presentation? Rob O'Reilly.

MR. ROB O'REILLY: Just trying to follow along here. Is this the first time that we've really gone back to the 1998 proportions and utilized those in the options, except for Option 5? For example, my understanding in 2014 was that whatever happened in 2013, as far as landings went, when we formed the regions, then that was the starting point. Then in 2015 that process was done again in 2016. This is I think the first time that using the basis of the 1998 proportions, and applying them to these reductions is somewhat different. I guess that's my question, but what I'm really thinking about is which of these options most closely parallels what has gone on before. In other words, if we just simply took the 2016 projected landings and seeded the regions with those landings, which option comes closest to that?

MR. ROOTES-MURDY: For your first question. My understanding is that when we drafted draft documents for Addendum XXV, XXVI, XXVII, they were also loosely based on the approximate allocation that regions would have pooled that were based on their 1998 proportions.

They were not hard and fast, and they obviously had variations; given that the efforts of regional management were trying to ameliorate harvest changes that weren't quite matching with a '98 based allocation. This addendum does lay out to your point for the first time, holding states and regions to effectively their '98 allocation for 2017 harvest.

Now that is based again on 2016 preliminary data. You are correct in that this addendum is the first time we've applied for a reduction purpose, looking at how they fared relative to

their '98 based allocation. For your second question, can you repeat it again?

MR. O'REILLY: Well I guess the idea is you sort of answered the second question, but really which option might come closest to that now, to the way things were previously moved forward when we started regional management in 2014. If we think of all these options, which one is closest to what we were doing before?

Really in a way what I recall was some minor changes was sort of using the specific landings for a region, and then taking that landing say for 2014, and then in 2015 that was seeded as the starting point; and it went from there. Are we close to something like that now with one of these options?

MR. ROOTES-MURDY: I think that is a little bit of a judgment call, but my read of the document would say that Option 1 probably is the closest to that; because you have a number of regions that are being asked to stay status quo relative to their 2016 harvest, based in part on how they performed relative to their '98 allocation.

Option 1 is maybe the closest, but again the previous addenda for regional management was trying to move away from the '98 based allocations. That is the only other caveat to note that it's not exactly the exact same as what you would see in Addendums XXV, XXVI, and XXVII.

CHAIRMAN LUISI: Adam.

MR. ADAM NOWALSKY: If I understand, well first let me thank staff leadership, the working group, everyone here that has been involved in this process. It's been a very difficult one. Also take a moment to thank our Commissioner for coming down with the support of our Governor's office. It means a lot having that backing here, members of our public.

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The question I had was, if I understood your comments regarding the discrepancy between the language and the tables. While we actually have three options labeled Option 2, Option 3, and Option 4, if we selected one of those options today, we would then have to select between the text and the tables; which in fact means those three options represented six options. When this document went out for the public, were they clear in what they were commenting on between the text and the tables? Do we have any guidance about what people were really commenting on?

It has been the history of this process to always go ahead when we talk about reductions, liberalizations. We've always gone through the process of approving methodologies, not specific numbers. Now we had the methodology spelled out in text, but we're supposing that what we're really going to do is approve the actual numbers that were in the document. Again, I'll get back to the question of did people comment; recognize that difference that there were really six options not three?

MR. ROOTES-MURDY: I think Mike touched on this earlier in that one of the points the Recreational Working Group came to in trying to evaluate this discrepancy was that when a document like this goes out to the public, the public generally focuses on the tables; because that is the best measure to evaluate what is going to change in their associated management measures from one year to the next.

In that regard the tables were very much more the intent of what the working group had wanted, rather than the language; and that is where though there is a discrepancy, the working group felt that this is the best approach, which is revising the language to match better the tables; which was the intended way of handling the reductions for Options 2 through 4.

The only other thing I would note is that this is a draft document, one that the Board always has the ability to further adjust; in terms of the options that are selected. In looking at Options 2 through 4, if that is selected by the Board, one of those options, the revised language can be offered up with the motion to clarify exactly what the methodology is; and it can be noted that the associated table with that revised language, it was provided to the Board last week, would be in consideration for the document.

CHAIRMAN LUISI: Bob.

MR. BOB BALLOU: First, I certainly want to echo your comments also shared by Adam Nowalsky regarding the really hard and impressive amount of work that went into getting us to where we are today. I'm acutely aware that this was a very heavy lift, and I'm really impressed with the strong shoulders that were employed to get us to where we are.

I think we're in a much clearer place today than we were, and again that's thanks to the awesome work undertaken by many. My question for you, Kirby, and I think you did an excellent job laying out the options. My reading of Option 2, comparing it to Option 3, is that when you look at the title it sounds like it's taking the same approach.

On the one hand using a one inch minimum size increase as the parameter, with regard to Option 3, using a 30 percent reduction as the parameter, but it seems clear to me that the approaches differ; in terms of how those are applied. I am really just looking for a yes or no answer here. Is it not true that Option 2 and Option 3 utilize different approaches? I'm just going to ask that question in that way.

MR. ROOTES-MURDY: Yes, you are correct.

MR. BALLOU: Thank you.

TECHNICAL COMMITTEE REPORT

CHAIRMAN LUISI: I'm going to turn now to Greg; who is going to provide us this Technical Committee report. We'll have time for questions for Greg, and then we'll be looking to take action in some way here.

MR. GREGORY WOJCIK: I'm going to wait for a second here for the slide to come up. Okay, the Technical Committee met via conference call on January 19, with a task to evaluate the options that were presented in Draft Addendum XXVIII. In this presentation I'll be summarizing what we covered in that conversation.

First of all we evaluated the discrepancies between the tables and the language describing Options 2 through 4. Kirby had just kind of covered this in some detail, but I just want to run through some points that the TC wanted to make. Next I'll go through the terms of references that were provided to us by the Chair of the Board.

There were four questions for us, basically to address the effectiveness of crafting measures to meet the recreational harvest limit. Then we can go over what steps may be needed in the future. Once we get through that I would be happy to address any questions the Board might have. In regards to Options 2 through 4 and the discrepancies that were identified between the tables and the language of the document.

The Technical Committee agreed with the working group in that the intent was to use the options as they were presented in the table, not the text. Now if the language were to be followed as originally written, it would have violated the guiding principles that went into the options. The TC noted that the intent of the Working Group was not to burden any region or state with more than a 50 percent reduction; in which case Rhode Island would have fallen into that category.

The TC also wanted to note that if the language in the document were strictly followed that Options 2, 3, and 4 would have virtually identical reductions associated with them. Now I'm going to be covering the terms of references that were provided to us by the Board. The first term of reference was to evaluate the effectiveness of the methodology that was used to craft measures; based on the previous year's harvest.

The standard method that we've been using, oh gosh for at least eight years now, takes into consideration the length of the season, the creel limit, as well as the minimum sizes. These are really the only tools that we have to work with at this point. In this formula you see here, we have X, which is the percent decrease associated with a season closure, and Y, representing percent savings associated with the size limits or the creel limit reductions.

When we use this formula, X plus Y minus X times Y, and what this really does is it takes into consideration any interaction that occurs when you change any more than one of these variables. Now, when the Technical Committee met to review our methodology, there were certainly some concerns with the effectiveness of these tools that we've been using. First of all with the season lengths reductions, the current method uses an average catch per day rate; which are calculated using the full waves harvest, and then it is divided by the number of open days. This basically assumes that each day in a wave is considered equal, and we know that isn't really accurate. Also, harvest could possibly be recouped at a later day. As for creel limit reductions, the Technical Committee agreed that it was the most difficult of the three tools to measure its effectiveness. Since there are very few trips in the MRIP data with anglers limiting out, there is also very little savings in the calculations. Reducing by one or two fish rarely provides much reductions; at least in the calculations.

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Also, it doesn't necessarily accurately account for angler behavior changes. For example, it is possible if the creel limit was reduced, the anglers would be inclined to make less trips targeting summer flounder; which would result in a greater reduction than what was first calculated. Minimum size increases, they had the most confidence using this tool.

The MRIP length distributions are used to see what proportions of the fish would be released under a new higher minimum size. Finally, because of the timing the Technical Committee is forced to use only the prior years, preliminary MRIP harvest estimates through Wave 5. When we make these calculations the Wave 6 data is not available yet.

Also, the final estimates are generally not released until well after the states need to start making their final rule process. This has been problematic in the past, mostly because when final estimates are released they incorporate additional effort information from the for-hire vessel logbooks; which changes the harvest estimates.

It is possible that a 41 percent reduction that we're facing now could change slightly when the final estimates are released. Okay so based on this, what does the performance look like? On the graph you have in front of you, the black diving line, if you can see it, is the recreational harvest limit.

The gray thin line is the MRIP harvest point estimates. Then those are bound by the standard errors. The dotted red line is the PSEs that are associated with MRIP, and then the red line is out two standard errors. As you can see, there are very few years in which crafting these measures have really put us within the PSEs coastwide.

It looks like in 2004, we were pretty close. Then you need to get up to what 2013 and 2014 before harvest was close to the RHL again. It is

really only three out of the last 16 years or so that we've been close to RHL. Then you can also see the 30 percent drop in the RHL that is going to be needed for next year.

Under Term of Reference 2, we were asked to evaluate the utility of a single year for state specific harvest allocations. This is really in reference to the 1998 based allocation, and what the challenges are just using a single year of MRIP estimates to set a base year; and what the problems it might lead to moving forward.

We've grouped these challenges into two categories; we have inter-annual variability and nonrandom changes in harvest. First of all the biggest challenge we've had is MRIP survey variability. I'm going to be getting into this in a little more detail further in the presentation. But basically, within any one given year estimates at the state level or at the regional level, they can fluctuate significantly up or down. Basically, what that can do is create winners and losers when assigning allocations. Second of all, the fish availability can change from one year to the next. They could be more available in New York one year, and then more available in New Jersey, say the following year. This figure compares to 1998 based allocation to what the harvest looks like over more recent years; the blue bars being the 1998 allocation, and the red bars the average over the last three years. Now, keep in mind back in 1998 all states had the same regulations, they were eight fish at 15 inches open year round.

Now, in more recent years the northern states such as Rhode Island, Connecticut and New York, have harvested a higher proportion of fish compared to the southern states. I would like you to take a look at Connecticut and Virginia as an example on how things have changed. In 1998 Virginia landed 17 percent of the coastwide total, and Connecticut landed 4 percent.

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In 2016, the Connecticut regulations have had a two inch higher minimum size than Virginia; and a season that's one-third the length. Yet regardless, Connecticut's harvest is now higher than Virginia. Okay Terms of Reference 3, we were asked if the reduction targets in Options 1 through 4 were achievable using the standard methodology.

The Technical Committee broke it down into two groups and looked at both predicting harvest at the state and regional level, as well as the coastwide level. At the state regional level, it is just very difficult. For example, in 2014 through 2016, all the states had their consistent measures; but there were still extreme fluctuations in harvest within each state; up to 261 percent in one example.

Now, as far as the coastwide level, it is much more likely that we can get close, but it is still difficult to predict. Once again we had consistent measures over the last three years, but harvest estimates have fluctuated by up to 50 percent; and with consistent measures you would expect harvest to be relatively stable.

Now this figure shows the harvest estimate fluctuations under consistent measures over the last three years; relative to the three-year average. The first bar on the left, it shows the variations coastwide, ranging in each direction from the average by about 20 percent. The second one from the left is the Connecticut to New Jersey region, then there's the Delmarva region; which is followed by each individual state from north to south, Massachusetts through North Carolina.

This fluctuation in harvest estimates under consistent measures makes it difficult to craft measures that meet the RHL. Okay Terms of Reference 4, based on the previous evaluation of Terms of Reference 1 through 3, we were asked; what is the TCs confidence in using the standard methodology moving forward?

Basically the TC recommended making adjustments to methods in the future years for these reasons. The time constraints we have to deal with, the preliminary data isn't available until mid-December, which can change when the final estimates are released and then that really only gives us a few weeks to complete the analysis; and then finally the data limitations that I've outlined in the previous slides.

Okay so moving forward. The TC recognizes the 2013 stock assessment and its updates to currently be the best available science, and believes that there should likely be some sort of a reduction. We would also like to develop new methods in the future, possibly working on something over the summer. But first of all, the TC would like to consider using multiple years of MRIP data in crafting measures. Also, the MRIP harvest is in fact an estimate. The TC feels that the standard errors around the estimates should be incorporated into setting the measures. Also, the TC recommends using more broad strokes or uniform actions when setting regulations; such as what's presented in Option 5 of the addendum.

Finally, the TC wanted to point out that the problems we've addressed here are not necessarily limited to just the summer flounder; and there are other species that could have similar problems. Taking into consideration the TCs recommendations of incorporating the PSEs and using three-year averages, this is an example of how Option 5 meets the 2017 recreational harvest limit.

Using standard methodology, Option 5, which is a one inch increase in minimum size with the lower possession limits. It results in a 31 percent reduction. Using a three-year average of harvest, if 39 percent reduction is needed to achieve the RHL, instead of that 41 percent with a single year, so with a projected PSE of about 8 percent around the 2017 estimates; the Option 5 projections would put the RHL within a

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standard error. That's it, if anybody has any questions.

CHAIRMAN LUISI: We'll take a limit of questions for Greg. Rob O'Reilly.

MR. O'REILLY: Thank you, Greg and thank you to the Technical Committee. I am well aware of how you've kept pace and really moved ahead in a lot of these approaches. I did have one question for you on your slide where you were comparing Connecticut and Virginia. A couple of days ago my staff looked at directed effort, and I submitted that to the Working Group.

It is fairly interesting in that directed effort where either that was the target species, summer flounder, or summer flounder were indeed part of what was caught. It showed some interesting trends there in that really other than Virginia, which is in evident decline in directed effort as we move forward through the last several years. Most of the regions or states within the region stayed somewhat flat. Did you have a chance to look at that?

MR. WOJCIK: Yes I did, Rob. I definitely agree with the observations that you had seen. It seems like the majority of the harvest that is being shifted towards the north is coming from Virginia. The effort sort of shows that as well.

MR. O'REILLY: As a follow up, is that a tool that the Technical Committee will maybe use a little bit more? It was even surprising to me in the Delaware/Maryland/Virginia region, Delaware had the highest harvest. I don't know about the total catch. It did show that there was an upturn in Delaware with their directed effort as well. I'm sure you've talked about that. But if that's another way to sort of look at the progress of this that would be really good to know.

MR. WOJCIK: Thank you, Rob. That is definitely something that we could look a little bit closer to, as we're moving forward in the future.

MR. NOWALSKY: Two questions. The first is regarding the terms of reference. You had indicated at the beginning of the presentation that the TORs were provided by the Board; yet the TC memo says that they were provided by the Board Chair. I'm trying to get clarity. I don't remember the Board having specifically voted on these TORs. I think that they're certainly very good questions to ask, wherever they came from. I appreciate the TCs attention to them. But I just wanted to get some clarity on the source of them, and if they did in fact come from the Board Chair directly, if he could perhaps give some insight as to the thinking behind those specific questions. The second item I was hoping you could touch on, because it wasn't included as those TORs is that Option 5 presents three areas where there would be two inch divisions between neighboring states; Virginia/North Carolina, Massachusetts/Rhode Island, and New Jersey/Delaware.

But yet the whole impetus for regionalization was to bring states closer together, and at that time there was just one pair of states that had that great of a discrepancy, New York and New Jersey. We're now talking about moving to three separate neighboring states that would have that distinction, so I would like some TC input on that matter.

CHAIRMAN LUISI: I'll handle the first question regarding the terms of reference. I'll say that it was a timing issue. The proposal that was put forth after our joint meeting in December with the Council, there was a proposal put forth Option 5 from the state of New York. As the Work Group discussed Option 5, we needed some clarification from the Technical Committee on that option, as well as a consideration of achieving the RHL for the other option.

I worked specifically with New York to come up with those questions. Because of timing, the need for the Technical Committee to get to work right away without having a debate on

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those terms of reference. I used my position as Chair to forward that to the Technical Committee. That is where we are with the terms of reference. The other question regarding the more technical work, I think I can go to Greg for that one.

MR. WOJCIK: Looking at the Option 5 and the example size limits. Basically it increases the minimum size by one inch across the board and for all states, with the exception of North Carolina. You're still going to have the same break from Massachusetts to Rhode Island; so it's just that one additional change.

CHAIRMAN LUISI: Okay I'm going to take two more questions and then we're going to need to move on. I had Chris Zeman and then I'll come to Nichola, and then we'll go to Mike.

MR. CHRISTOPHER ZEMAN: During Kirby's presentation he was saying how several of these options, states that were under their catch relative to the 1998 allocation would basically automatically lose that sort of credit, and it would be shifted to other states that exceeded their 1998 allocation or regions. Now in your presentation you said that there is an extreme variability every year for catches for each individual state. Do you see that as sort of a disconnect or a problem; in terms of achieving our targets, at least at more of a regional level or a state level?

MR. WOJCIK: Right so the variability that you're speaking about is much more evident at the state level. The more you end up combining the MRIP data, the smaller you see that variability. Regions seem to have much tighter grouping; at least looking over the last three years, and then coastwide seems to be the best.

MS. NICHOLA MESERVE: Thanks for the report, Greg and to the Technical Committee for its quick work every year on these issues for us. You reminded us that Option 5 has a 31 percent chance or a 31 percent reduction rate overall,

estimated. Can that be broken down by the regions in the Option 5 table? It was noted at our public hearing and through other comment that the Option 5 table differs from the other options; and that regional rates are not shown, reduction rates. If those are available, it might benefit the conversation today if we had those. A second question if I may, while you're thinking about that. There was a comment in the Technical Committee's report that the TC agreed that Option 5 is more likely to achieve a 30 percent harvest reduction and Options 1 through 4 are likely to achieve a 41 percent reduction.

If we put those on the same scale of achieving a 30 percent reduction, would the Technical Committee have gone further to say that Option 1 through 4 have the similar rate as Option 5 of achieving a 30 percent reduction or a greater likelihood of achieving more than 30 percent?

MR. WOJCIK: First of all just for clarification, the Technical Committee felt that the 31 percent reduction with Option 5 was more accurate than the Options 1 through 4 and the 41 percent reduction. Not necessarily that they felt that 1 through 4 would achieve a greater reduction. The reason why they felt that they had more confidence with Option 5 is mostly because it is more of a broad stroke action across the coast, and also it utilizes just the minimum length mostly.

Like I had mentioned earlier, coming down a couple fish doesn't really add much to the reduction. For those reasons they were making a better estimate at 30 percent. Then back to your first question. Just a clarification, you're looking for the breakdown of what the percent reduction would be by region?

MS. MESERVE: Correct, similar to what was presented for Options 1 through 4 in the public document.

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MR. ROOTES-MURDY: I think as you're aware, Nichola, we didn't include that in the draft document; because the intent of New York was to not have harvest targets for those. But I believe we can pull those together if that's of interest to the Board.

CHAIRMAN LUISI: Let's check where we are here. We've received all the reports that we were going to under Item 4 on our agenda; and I would like to at this point move towards considering final action. Oh, I'm sorry. Mike go ahead, I'm sorry, I missed you.

MR. RUCCIO: I wanted to thank Greg and the Technical Committee for their work on this. I very much appreciate the fact that the Technical Committee is also trying to move the ball forward a little bit. I know we've used many of the same methods for many, many years now; and I appreciate you guys thinking outside the box.

But that does leave me with a question, specifically on Option 5. The approach of saying that it falls within the standard error of the estimate is a new concept for us. I wonder; how do we have assurances that it will be at the point estimate or below and not above? You know when you look at the performance of the fishery that you had in one of the graphics earlier in the presentation, we have pretty routinely gone over the marks that we've set.

There can be a number of very valid reasons for that. But it gives me some pause when we look at one that on the onset is described as having a much lower percentage; in terms of outright reduction that we're trying to achieve on a coastwide basis. Then we're relying on it falling within one standard error. To me, which states there is equal probability that it could be above or below that point estimate. If it is at the point estimate or below, great we've achieved what we needed to in terms of the recreational harvest limit. If it's above then we've set ourselves up to not achieve what we've set out

to do. I wondered if you could comment a little bit about how the Technical Committee approached that; what assurances there are that is a robust enough approach to ensure that we're not setting up to exceed the recreational harvest limit, if we're wrong in terms of where it falls in that distribution.

MR. WOJCIK: Okay so the Technical Committee's feelings were mostly that since the MRIP data was so variable that by trying to meet that point estimate was almost impossible. The way we looked at it is that the range between the two PSEs was really the target that we really should be trying to reach.

CHAIRMAN LUISI: Follow up, Mike?

MR. RUCCIO: Just a quick follow up and I appreciate that. But the challenge I think we have is the potential disconnect in looking at it that way, and how the FMP is constructed. We're beholden to a point estimate, in terms of the recreational harvest limit. We don't have the ability to look at a range for the recreational harvest limit. Certainly we can discuss this more as we move forward into the actual discussion on the alternatives.

CHAIRMAN LUISI: I think in moving forward, depending on what gets put on the board for discussion. We're going to need to get some clarification as to how GARFO would move on, in the event that certain options are selected; because of the risk associated with the consequence of a disapproval of a certain action.

Stay tuned, Mike. I'll probably come back to you here in just a bit. But with that said, I think it's time now we need to move away from question and answer and get to a more broad discussion about whether or not to consider final action. Looking at the time, I am absolutely guaranteeing you that we will not finish this discussion in 15 minutes.

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But it was probably unrealistic to think that with a 40 minute time slot that we were going to get this done. With that said, I would like to instead of just opening the floor for discussion, I would like to actually turn to the Board and look around the table for a suggested motion. That way we can focus our discussion on that motion; rather than a more broad and general discussion regarding what we're going to do with Addendum XXVIII. I'll look to the table. Bob Ballou, oops Tom, I saw you, you were first. I'm sorry.

MR. TOM BAUM: I am prepared with a motion. I provided staff with a motion. It's up on the board so I'll read it. Based on what I've heard from the public hearings and our Commissioner, **I move to postpone Addendum XXVIII until confirmation of a new Secretary of Commerce and NOAA Fisheries can submit new regulations directly to the Federal Register.**

CHAIRMAN LUISI: Okay so we have a motion by Tom Baum, do we have a second on that motion? Again, is there a second on the motion; Marty Gary seconds the motion. Discussion by the Board, Tom, would you like to justify or provide comment to your motion?

MR. BAUM: I would. People who know me know that I'm not a man of many words; but that might change. The message we received at our public hearing and from Commissioner Martin is clear. New Jersey stakeholders just cannot survive more restrictive measures on its recreational summer flounder fishery. Size limit increased to 19 inches, equates to a 50 percent decrease in the available summer flounder in New Jersey waters. For years under state-by-state conservation equivalency, New Jersey opted to provide our anglers a reasonable size limit, by sacrificing the season length. Our Marine Fisheries Council always strived to ensure that the recreational summer flounder season was always open, at the very least from Memorial weekend through Labor Day.

Our March Council meetings were always very contentious when size, season and possession limits were debated; actually as state-by-state conservation equivalency came to an end, they were debating like four days, how to cut four days from either the beginning or the end of the season.

This management board has had numerous discussions concerning recreational regulatory discards, and I'm sure that that issue will be included and investigated in this ongoing comprehensive summer flounder amendment. But we need to decrease these discards now. Raising the size limit does not address this issue.

Up to 90 percent of the recreational catch is discarded, 90 percent. I can't imagine how high that percentage will go when we increase the size limit. It might go to 100 percent. I recall the answer to a question about stock assessments and dealing with uncertainty, and it went something like; we need to be certain about the uncertainty.

But right now there is a lot of uncertainty about summer flounder management that we are not certain about. I'm very fortunate that I share an office with Jeff Brust, he's our research scientist, and a lot of people around this table and in the audience know him. If you don't, well I have the highest regards for him.

When we ask him questions about summer flounder he'll say, I've watched him at his computer, well let me check on this option, and he'll be writing the code for the size and bag limit reduction. He'll do the table right there. That code used to be available from the Mid-Atlantic Council when MRFSS became MRIP; the code was not good any more.

But Jeff has worked on it. He did the calculations, came up with similar percent reductions as what is up on some of the options included in the addendum. When we discussed recreational harvest estimates just last week,

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and how variable they were; obviously we heard that from the TC report. He pointed out that yes they are, but they are more variable within waves; more specifically Wave 5 has been highly variable.

Our season isn't even open the entire part of Wave 5, yet the estimates that are calculated could encompass a whole season; almost 200,000 fish in Wave 5 that's not even open for two months. I remembered that 25 recreational harvest preliminary estimates when they were published. They were the lowest in the history of the survey for some of the waves and some of the states.

I couldn't help but think, this is the direct result of the conduct of the intercept survey and/or the effort survey. I'll come to an end, thank you, Mr. Chairman; but today is groundhog day, and just like Bill Murray's character, Phil Connor, I am not looking forward to the next time I wake up and I hear Sunny and Cher's, "I Got You Babe" when that alarm goes off. Am I going to end up back in this room? I'll conclude. In this hotel, I get on that elevator and it just reminds me of dealing with summer flounder reductions as it says, "going down."

CHAIRMAN LUISI: Let me just remind the Board that a motion to postpone is debatable. However, the portion of the motion that is debatable is the time certain portion of the motion. The time certain here would be when NOAA Fisheries can submit new regulations directly to the Federal Register.

That's the portion of the motion that is debatable by the Board. I may look; I'm going to look around to see if anybody has any specific direction here. But again, this is a timing issue. I think we are faced with the challenge of finding ourselves essentially running out of time to make a decision as to how we move forward.

There are consequences of not moving forward, and delaying to the point where the Board does not achieve a conservation equivalency that NOAA will have no other choice but to implement the non-preferred alternative. As far as timing goes, this Board will convene again with the Mid-Atlantic Council in North Carolina in two weeks.

The next meeting of the Board will be in May. I look to staff and to GARFO to maybe consider timing and how this timing would work. I assume that if NOAA Fisheries gets the authority to move forward with new regulations; that the Board would need to convene in some way. But May might be too late for that. I'll look to staff. Bob, maybe Toni or Mike can give us some thought as to the timing of all this and how it might work.

MR. NOWALSKY: Point of order, Mr. Chairman.

CHAIRMAN LUISI: State your point.

MR. NOWALSKY: The point is I believe the motion actually has two elements of time certain; confirmation of a new Secretary and the ability to submit new regulations. I believe you had indicated the only time certain point was the ability to submit new regulations; if that needs to be clarified with the maker of the motion, I would ask you do so.

CHAIRMAN LUISI: I missed that Adam, thank you for pointing that out. I think both points there are of time certain. We'll state that for the record that we can discuss either point as a time certain. Mike.

MR. RUCCIO: I think we need some clarification on what is intended with the regulation here. Technically we can submit regulations now; they're just not going anywhere depending on the substance and content of what they are. We are able to currently effectively promulgate in-season actions, which are regulations. It is

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hair splitting to a degree; but what's the intent here?

Further, the Secretary of Commerce appointment has no certainty as to when that will happen. Certainly confirmation hearings are occurring now. But it could be years. Under some prior administrations we've not had political appointees in place for the first seated year of the administration.

I just question how that is helpful to either the resource or the public to stick our heads in the sand and take no action. I don't see how this is productive or helpful. I understand the frustrations. We've had many conversations around this table about MRIP, about assessments. Many of the points that Tom made are ones that have come up frequently; and I understand that. But to the time specific elements of this motion to postpone, one has absolutely no certainty, and one I don't think is technically correct as it's written. We have issue with this.

CHAIRMAN LUISI: If I may I would like to ask you a direct question regarding timing again. If NOAA Fisheries feels as if we're getting further along into the season, in some cases the season has already begun in some states; and you're stating that you are able to, even though there are more hoops to get through.

But you are able to move forward and promulgate regulation now. Would NOAA Fisheries look to this delay as a problem for achieving the RHL, and you may take it upon yourselves with the uncertainty in the points in the motion, to moving forward without any Board action on the precautionary default that was determined back when the Board met with the Council jointly?

MR. RUCCIO: It is certainly something that we would have to consider. I think that we view it as we have an obligation under the Act to try to ensure that we're meeting the objectives

related to mortality for the stock. As we discussed in December, the indications are it's not in good shape. It is subject to overfishing and it is perilously close to becoming overfished.

I think it would be irresponsible for us not to have management on the stock for this year, which this motion may result in. As to whether or not we would have to take a unilateral action to either implement the non-preferred coastwide or precautionary default; that is something that we would have to take a look at relative to what comes out here and the timing that's associated with it. But it's certainly something we would have to consider.

CHAIRMAN LUISI: Chris Zeman.

MR. ZEMAN: Contrary to NOAA's position, I believe a postponement is absolutely appropriate now, and will be very helpful. I do think the new administration should have the opportunity to review these regulations before these draconian cuts go into effect. This has been an experiment that has been happening since 2013.

This was supposed to be a one year measure to try this out. It is now into its fourth year. I was on the Mid-Atlantic Council back in 2013. I opposed this approach, because this plan was not prepared. It was missing key components and there was a lot of pressure to get to push that plan through.

I see now three years later we're seeing the results of that decision. We threw away a plan of conservation equivalency that had a longstanding history of complying with targets, 10 out of 12 years, I believe. We replaced that with a plan now that has been in place for three years and has failed to achieve its targets two out of those three years.

Now it was intended or it was proposed, it was advocated aggressively by the Regional

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Administrator, the active Regional Administrator at that time to address the inequities of one state. Four years later we now have four states in crisis, including that one state. For these reasons I think we really do need to take a break here.

Really consider the track that we're going down; because frankly I think regional management is a disaster. We need to really address this. I've never been more concerned about the status and the management of summer flounder since I've been on the Council since 2009 to 2015. We had a long history of complying with our targets and stability. I'm seeing that now we're losing that because regional management seems to be shifting the responsibility of every state and diffusing it among regions. We're losing that direct ability where a state is responsible for its own destiny. It sets its own measures and it gets the benefits of its conservation. We have a system where those states that actually do.

CHAIRMAN LUISI: Chris, with all respect could you try to focus your comment to the time specific point of the motion. I don't want to deviate from it.

MR. ZEMAN: It is actually crucial this is reviewed. We don't want to just go through the motions here and then we go with another addendum; because 2018 will be no better than we are at now.

MR. EMERSON HASBROUCK: I have a question, in terms of where we would end up if this motion should pass. I'm looking at the language in the Draft Addendum for Public Comment that says that unless an alternative management approach is selected for implementation via this addendum, management of the 2017 recreational summer flounder fishery will default to state-by-state allocations regulations based on 1998.

That is what one paragraph says. The following paragraph says that under any alternative to coastwide measure implemented by the Commission, NOAA Fisheries has the authority to supersede those regulations; essentially going to the precautionary default measures. I'm not sure where we would be headed here.

I don't know if anybody has an answer to that; and if postponing action here does that just defer in a way what it said in the first paragraph that unless an alternative management approach is selected? It doesn't say by what time. What happens if we get to May or June and we haven't acted on this?

CHAIRMAN LUISI: Thanks for the question, Emerson; and I think that was the point I tried to make a little earlier and Mike clarified. If we approve the postponement here, and that postponement of taking any action on this addendum, if we have to wait until there is a confirmation of a new Secretary and NOAA Fisheries can submit new regulations, it is indeterminate as to when that time would be.

It is not that we are selecting in any way the no action alternative in the addendum. It is just we're putting on hold everything that is in the addendum right now for some future discussion. There is risk with that. The risk is that by taking no action NOAA Fisheries might take their own action.

The Board committed to conservation equivalency back in December with the Council. I view it as a hold. The hold could be for a week, the hold could be for six months; and as Mike alluded to a year, as to when we take final action. The timing is critical and there is risk associated with the timing of this.

If this motion were to fail, obviously we would have a discussion about the alternatives in the plan. If the alternative were selected for no action, we would essentially default to state-by-state conservation equivalency by not

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continuing this addendum. In my mind that's how these pieces all come together. Do I have any other comment on the time issue of the motion? Rob O'Reilly.

MR. O'REILLY: Certainly have heard some good information this morning from New Jersey, both from Commissioner Martin, from the Governor's proxy and from Tom. I have to say that I'm bothered that there can't be some other avenue for New Jersey now. I was hoping, and I was concerned that the motion wasn't going to get seconded for a second.

But I was hoping that hearing Greg from the Technical Committee, and we could have explored that further, that there might be some other avenue here. I know this is about the timing, because what is the alternative to this? The alternative is not to delay. In order not to delay, what could New Jersey have that would give them a better sense that disaster wasn't so acute?

Just to go another little step further. Many, many years some of us have spent watching this situation where you have to make a target; and the success rate was really not good, as many of you know, all the way until about the last five years before we went regional. It is very difficult; you know that is why you're hearing things from the Technical Committee about Option 5 that might have more accuracy to it.

The other situation is that with all these situations we're in, we never come back and say; well, we needed a 28 percent reduction, we got 14 percent. Move on, let's go for the next round, and that's what we did for years and years. I think my opinion is the reason regional management worked is because the stock has been sliding.

I know everyone would like assessments each year and a benchmark every three years. We're pretty close to that. The benchmark was 2013, the update was 2015. I'm not going to repeat

all the statistics, but suffice it to say the stock doesn't want to have us wait, I don't think, overall. I'm hoping there is something that we can consider and that New Jersey can consider that maybe with the right impetus, NOAA will look upon it as something that is reasonable. I think that is the way I look at this.

CHAIRMAN LUISI: I'm going to take one last comment, and then we're going to move on the question. David Borden.

MR. DAVID V. D. BORDEN: This will be quick. I'm opposed to the motion, but I have a timing question. The first opportunity we're going to have, as I understand it if this passes, in a perfect world if both of these criteria are met; we wouldn't meet again until May 1st. My timing question relates to the harvest. What portion of the harvest will have been already taken at that date? Can somebody in the Technical Group characterize that just using the historic data? I think it will help with the timing issue.

MR. ROOTES-MURDY: I think it's a great question, David. The problem is that when we're looking at the states that have over like the last three years been the largest contributors to the coastwide harvest, their season hasn't started until towards the end of May. While you have the states of Delaware through Virginia, and North Carolina open before that point. Their harvest is very small compared to the coastwide annual harvest. There is a certain percentage that would be harvested in theory, but to what degree it would be it is hard to pinpoint what that percentage would be.

CHAIRMAN LUISI: Let's take a one minute caucus and then we'll call the question.

MR. NOWALSKY: Mr. Chairman, if I may, the state of New Jersey had requested a roll call vote on this topic.

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CHAIRMAN LUISI: We can do that. Let us get prepared for that and then we'll go around the table and call the question; after I read the motion into the record. We have a motion and it's been asked that we do a roll call. The roll call will be from the states of Massachusetts through North Carolina, and including the Potomac River Fisheries Commission.

Let me read the motion into the record. **Move to postpone Addendum XXVIII until confirmation of a new Secretary of Commerce and NOAA Fisheries can submit new regulations directly to the Federal Register. Motion by Mr. Baum, seconded by Mr. Gary, and I'll turn to Kirby for the roll call.**

MR. ROOTES-MURDY: Going north to south, the Commonwealth of Massachusetts.

MS. MESERVE: No.

MR. ROOTES-MURDY: Rhode Island.

MR. BALLOU: No.

MR. ROOTES-MURDY: Connecticut.

MR. MARK ALEXANDER: No.

MR. ROOTES-MURDY: New York.

MR. HASBROUCK: No.

MR. ROOTES-MURDY: New Jersey.

MR. TOM BAUM: Yes.

MR. ROOTES-MURDY: Delaware.

MR. JOHN CLARK: Yes.

MR. ROOTES-MURDY: Maryland.

MS. RACHEL DEAN: No.

MR. ROOTES-MURDY: Potomac River Fisheries Commission.

MR. KYLE SCHICK: No.

MR. ROOTES-MURDY: Virginia.

MR. O'REILLY: No.

MR. ROOTES-MURDY: North Carolina.

MR. CHRIS BATSAVAGE: No.

MR. ROOTES-MURDY: U.S. Fish and Wildlife Service.

MS. SHERRY WHITE: No.

MR. ROOTES-MURDY: National Marine Fisheries Service.

MR. RUCCIO: No.

CHAIRMAN LUISI: **Okay motion fails 10 opposed and 2 in favor.** Since everybody voted, or assuming there are no abstentions or no null votes. Okay back to the Board. Now that the postponement of taking action has been addressed, I will look to the Board for a motion regarding an option to finalize the addendum. Jim Gilmore.

MR. JAMES GILMORE, JR.: **I would like to propose that we adopt Option 5. Kirby has gotten a motion crafted before so we didn't have to waste time, so if you could get that up. Move to approve Option 5 (more coastwide consistency) from Section 3.2 with the removal of the following language: of particular note, Option 5 is calculated to achieve a 28-32 percent coastwide reduction (depending on the sub-option) less than the required reduction of 41 percent that Options 1-4 are designed to address.**

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CHAIRMAN LUISI: Okay we have a motion; do we have a second on this motion? Matt Gates. Jim, would you like to speak to the motion?

MR. GILMORE: I'm proposing Option 5, because I sincerely believe this is the best most equitable solution for the difficult decision that we all face today in going forward. Again, it provides a viable fishery for all states in 2017, and hopefully in 2018. Just in terms of a little history, this marks my tenth year with this body; and the first meeting I went to ten years ago was on summer flounder and allocations, and how we're going to manage the fishery.

Back then it was sort of difficult. I thought the Commission was about cooperation, and there wasn't a lot of leeway back then. It was sort of every state for themselves. But then three years ago this body should be commended that we got into regional management, because we took a leap of faith; and it focused less on the numbers and more on trying to keep a viable fishery for all the states that were involved.

We initiated regional management then, and contrary to the comments around the table, I think it's worked very well. The stock decline is what the problem is right now, not so much that regional management hasn't worked. We've had a lot less ojida because we have consistent rules between New York, New Jersey, and Connecticut now. There have been some hiccups, but it works pretty well. Now in 2017 we are facing a 40 percent reduction, and again a coastwide reduction on New York's most important fishery; it's not only New Jersey's. But this reduction is two parts; it is 30 percent from the stock assessment, which we believe. We believe we need to take action. Ten or 11 percent whatever is from the MRIP estimates. We believe the data mainly for a whole lot of reasons. First off, the stock assessment looked good. A lot of the reports we were getting back up and down the coast was that fishing was not good this year; including personal experience. Then MRIP

comes out and says gee, we exceeded the RHL. It makes no sense.

That is why Option 5 is looking into MRIP being a predictor. Dr. Jones spoke yesterday about the improvements to MRIP, and I think it's getting there; but it's not ready for prime time. We're not there yet to use this, because there is so much variability. It is supposed to give us accurate estimates of effort and harvest; and it is not doing that not yet.

Again, it is a very difficult survey to try to estimate millions of anglers and what they're actually catching. MRIP is a tool, but it's an imperfect tool; and we have to use that in management and look at it from that perspective that it's not exact science at this point, and hopefully someday it will. Option 5 looks at the stock assessment but challenges MRIP.

It essentially let's take a reduction that is really looking at a significant action to try to improve this. I'm just going to jump down a little bit here, because I don't want to get too long into this. But again it is keeping the fishery viable for all the states in 2017 and hopefully 2018. Options 1 through 4 to me are looking backwards.

We moved ahead three years ago when we went into regional management, and started managing the fishery with a more comprehensive and cooperative approach to it. We go back to those other options; they are all based on 1998. Three years ago we finally got past '98. It is 20 years ago. It doesn't really make any sense for management today, because of what the stock has done.

Just in terms of statistics, our fishery is a billion dollar industry, a lot of fishermen just like New Jersey. We're trying to keep it viable. We used to have 180 day season, it went down to 128 days. Options 1 through 4 give us a 59 to a 90 day season. Our industry is just killed under

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that. All those options are not going to give New York a viable fishery.

Again I'll jump down to the end here and let some other folks jump into this. I just believe that the Working Group has done a good job at getting the concern that I've heard around the table that NOAA Fisheries may not accept it, because it doesn't meet the 41 percent required reduction.

I firmly believe it does. I think the TC has done a great job and that the Working Group got together and essentially if you look at all the variability with MRIP, I think that Option 5 not only gives a viable fishery and a fair distribution of that coastwide 30 percent reduction, it also takes into account that extra 11 percent.

Option 5 if we approve it, I think hopefully the NOAA Fisheries will accept that as being a viable option; because I believe it is. I've heard that they are considering it, and they've looked at that information. In summary, I just ask everyone today that we need to support Option 5 to continue to move forward. Take another leap of faith today like we did four years ago, and live up to the standards of the Commission of cooperating to keep us all in a viable industry and a viable fishery; and not go back to the best thing I can get for my state. We've given up a lot; I know the other states have. We appreciate that and we hope that cooperation continues today.

CHAIRMAN LUISI: Your point to not only quantitatively but the qualitative aspect of the Technical Committee work relates to your point about, in your mind this will achieve the desired reduction that's needed on a coastwide basis. Okay, I had Mark Alexander.

MR. ALEXANDER: I appreciate Jim's motion here. It is a hard choice that we all have to make. I recognize that there is a tremendous impact to the state of New Jersey, also the state of New York. Connecticut is a small player in

our region, but it is no less important to us as well. Our recreational fishermen and our party charter industry are equally going to feel the implications of the choice we make here today.

I echo the concern about the MRIP estimates. We have had in our region static management measures for three years. For the first two years of those three years, our harvest estimates were pretty stable. Last year the harvest estimate doubled. We find that hard to swallow. At our public hearing for this addendum, our fishermen were unanimously adamant that if anything the fishing in 2016 was poorer than it was in 2015.

For our estimate to double is hard to believe and we're very skeptical about that estimate, we appreciate the work that the Technical Committee has done; especially in regard to the effectiveness of the various changes and the various management measures.

As distasteful as a size increase is for everybody, the Technical Committee did show us that size matters here, and that everybody going up an inch will very much increase the likelihood that if we implement this option that we will achieve a harvest reduction that is within the range of the PSCs. I hope that NOAA Fisheries recognizes that and takes that into consideration when they consider whatever comes out of the Commission's deliberations today.

MR. BALLOU: I would like to move to substitute, if I may.

MR. LUISI: When you're ready.

MR. BALLOU: I've provided this to staff, so if they could put it up on the board I'll read it. I would move to substitute by adopting Option 2, revised by substituting the words one inch minimum size increase with the words 30 percent reduction.

As revised, the option will require the regions of Massachusetts, Rhode Island, Delaware through Virginia and North Carolina to enact management measures for 2017 aimed at achieving a 30 percent reduction in harvest relative to 2016, and require the region of Connecticut through New Jersey to enact management measures for 2017 aimed at achieving a 43 percent reduction in harvest; relative to 2016. If I receive a second, I would appreciate the opportunity to speak to it.

CHAIRMAN LUISI: Okay we have a motion, do we have a second; Nichola Meserve. Bob.

MR. BALLOU: In accordance with the comments offered at the Rhode Island public hearing and the preliminary review undertaken by the Rhode Island delegation, Option 1 is our preferred approach. That said, we feel a variation of Option 2 as just moved, would constitute a more fair and reasonable compromise for all states and regions for the following reasons. I have ten points and it will take me about one minute to provide them to the Board. Number 1, it meets the 2017 RHL and is thus consistent with the 2017 fishery specifications approved by this Board at its December 13, 2016 joint meeting with the Mid-Atlantic Council. Two, it addresses the Board priority goals of ending overfishing and preventing the resource from becoming overfished.

Three, it maintains a regional approach to conservation equivalency, coupled with regional targets. Four, it applies as a minimum a uniform 30 percent reduction to all regions consistent with the 30 percent decrease in allowable biological catch for 2017; which was approved by this Board at its August 9th, 2016 joint meeting with the Mid-Atlantic Council, and which has already been enacted for the 2017 commercial summer flounder fishery.

Five, it applies a uniform 30 percent reduction in lieu of a uniform one inch minimum size

increase; thereby affording regions the flexibility to adopt management measures that are best suited to address the needs and interest of their recreational fisheries. Six, it recognizes that a uniform 30 percent reduction applied to all regions.

It lowers the 2017 harvest targets for the regions of Massachusetts, Rhode Island, Delaware through Virginia and North Carolina to levels that are below their 1998 based allocations for 2017, thereby holding them to a more restrictive standard than they otherwise would be held to under 1998 based state-specific conservation equivalency.

Seven, it requires the regions of Massachusetts, Rhode Island, Delaware through Virginia and North Carolina to share the fish they would otherwise have had access to under 1998 based state-specific conservation equivalency with the region of Connecticut through New Jersey; resulting in a de facto transfer of approximately 240,000 fish to that region.

Eight, it applies an additional 13 percent reduction to the Connecticut through New Jersey region, as needed to achieve the coastwide RHL; resulting in a 43 percent total reduction for that region. But it also results in a final 2017 harvest target for that region that is 32 percent greater than its 1998 based allocation for 2017.

As such, the Connecticut through New Jersey region would become the only collection of states able to harvest in 2017 at levels that are higher than their 1998 based allocations. Nine, it recognizes that under management measures that remained unchanged in 2015 and 2016, harvest decreased significantly in the regions of Massachusetts, Rhode Island, Delaware through Virginia and North Carolina; while harvest increased significantly in the region of Connecticut through New Jersey.

Ten, and finally it results in an allocation of 80 percent of the entire coastwide RHL to the region of Connecticut through New Jersey, which is a huge jump from the 60 percent they were afforded collectively under the 1998 based allocations. Mr. Chairman, I cannot conceive of a more fair and equitable and reasonable way to manage the recreational fluke fishery in 2017.

CHAIRMAN LUISI: Let me just take a second to clarify. This is more so a hybrid approach of the two options, not specifically directing states to take a mandatory one inch size increase, but to deal with the 30 percent reduction in the way that they would choose to; the difference being between Option 2 and Option 3. The way it's laid out is that in the case that you presented the states of Massachusetts, Delaware, Maryland, Virginia and North Carolina don't differ from what's in the table; but Rhode Island would fall into the category of just achieving the 30 percent reduction, rather than what is shown here in the tables of a slightly higher reduction.

MR. BALLOU: That's correct, Mr. Chairman. It adopts the methodology of Option 2, rather than the methodology of Option 3.

CHAIRMAN LUISI: Let's take a few comments. Adam, did you still have a comment? You're on my list.

MR. NOWALSKY: I certainly do have a comment. I did have a question about the original motion, which I think is still relevant. I know it is not the motion on the board, but I'll ask it; because it may influence this, and then if I may make a comment. Option 5 included language below the table that stated, New Jersey's ocean waters effectively shall have a size and bag limit consistent with New York and Connecticut; even though they're not technically part of it.

We heard comments earlier that a region would be held accountable, and if they were not submitting measures that were consistent with the reduction needed that the region would be held accountable. Under the previous option contemplated prior to this substitute, how would New York and Connecticut potentially be held accountable should New Jersey's measures not be the same in their ocean waters as New York's and Connecticut's? Because technically they're not in the same region, but the document says that they shall have the same size and bag limit.

MR. ROOTES-MURDY: I think what gets a little confusing here is that this is a motion to substitute for Option 5, so it would really be to the motion maker whether they would allow for that change in having separate measures in Delaware Bay for New Jersey.

CHAIRMAN LUISI: Well Adam, I think to your point too, and I don't want to spend too much time on Option 5; since we need to focus on what's on the board. Given that New Jersey is within its own region, I would say that you could use, if a certain percent reduction is needed you could achieve that percent reduction with measures that are different from what are shown in the example.

MR. NOWALSKY: My reason for the question at this time still is that given that we're two layers deep, and we could according to Roberts Rules go three layers deep. I would entertain amending this motion to include a Delaware Bay option. But I would like to know what the complexity that would entail, relative to that constraint in the text about New Jersey having the same size and bag limit in its coastal waters.

CHAIRMAN LUISI: I'm going to pass that to the motion maker. I would rather not go three layers deep, but I'll look to Bob to see if that's something that could be considered here.

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MR. BALLOU: I would strongly support an added provision addressing the Delaware Bay issue, essentially the issue that Adam Nowalsky is raising. In terms of how best to do that in terms of crafting the language that would achieve it, I don't have anything prepared. But I certainly feel it is consistent with the substitute motion; and I would strongly support it.

CHAIRMAN LUISI: Nichola.

MS. MESERVE: Yes that's fine and I would note that this revision to Option 2 actually frees up more fish to be shared with Connecticut and New Jersey, thus making it very easy to accommodate the small change in harvest for the Delaware Bay part of New Jersey.

CHAIRMAN LUISI: Given that both the motion maker and the seconder have supported the idea, I hate friendly amendment but I think we can maybe take that as a friendly amendment here, and we can have staff work on language while we get some other comments around the table. I have Jim Gilmore then Rob O'Reilly. Jim, if you could focus comment to the option that is on the board right now I would appreciate that.

MR. GILMORE: Will do, Mr. Chairman. Just to Bob Ballou's comments. First off as I said before, 1998 its 20 years ago, we have an amendment before the joint Mid-Atlantic Council and the Commission to finally get past that because it is not useful data any more. The more important, I'll give you Point 11.

If we go with Option 2, New York, New Jersey and Connecticut get a 96 day season three-fish bag limit. Rhode Island has 184 day season and an eight-fish bag limit. That will create chaos on the border waters of Block Island Sound, Long Island Sound, and the South Shore of Long Island and all the Peconics.

That is exactly what we need to get away from. We got into regional management to prevent all

of this chaos between widely different limits between different border waters. Adding that in is going to have economic impacts, and it is going to create a whole lot of havoc on the east end. I am opposed to that motion.

MR. O'REILLY: I am opposed to the motion. I know that we say things and different people hear them differently, but providing fish, sharing fish is great. Freeing up fish depends on the circumstance. I am worried with taking the original Option 2 and modifying it that it puts us in a position in the Delaware, Maryland, and Virginia region that we face some serious problems.

I liked where Bob Ballou started that he liked Option 1, because the Virginia anglers liked Option 1; and it went on from there. But I think the way things are going, I mentioned earlier Delaware had 95,000 fish more than Virginia, and more than Virginia and Maryland perhaps; I would have to look at that.

But nonetheless, there has been a shrinking situation. The days of worrying about an 800,000 fish target being eclipsed are over; that was a decade ago. But nonetheless, there was a fair 2014 year class. I would hate to see us that vulnerable that we would even drop down from 140,087 fish and drop down there to 134,145.

That means Maryland and Virginia would have 40,000, and I just can't support that. I am remiss for not pushing harder back in 2014 that we had a contingency plan for all this; because now it's too late. The idea that we could have reset these targets from 1998 to the advent of regional management would have been a wise thing to do; because it would give some security in a disequilibrium stock. But that didn't happen, so Jim Gilmore's comments are correct.

CHAIRMAN LUISI: One last comment and then I'm going to call the question. Chris Batsavage.

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MR. BATSAVAGE: While I appreciate the motion doesn't require a size limit increase as part of that reduction, I can't support this motion. As has been discussed in prior meetings, flounder management in North Carolina gets complicated; where we have the same regulations for summer and southern flounder.

Here lately southern flounder management has kind of taken precedent over summer flounder; although it's been the other way around in the past. Basically what would happen with 30 percent reduction, you see on the table, it would reduce our already very small harvest. It would also have a very significant impact on southern flounder harvest as well; which goes against the current management in place.

Kind of going back to that management real quick, through our southern flounder fishery management plan, we were supposed to have an October 16th through December 31st recreational harvest closure. However, those measures and other measures weren't implemented due to a lawsuit and an injunction that stopped those.

We don't know what the status of all that is, whether that will go back in place. If it did, for instance in 2016 it would have accounted for about 20 percent of our summer flounder harvest; so it would have a secondary benefit of kind of holding our harvest set at a low level, or at least keep it in check. Since that is uncertain and having to go another 10 percent beyond that to reach the reduction for summer flounder, and their impacts to southern flounder is just more than we could really feasibly do; so therefore I can't support it.

CHAIRMAN LUISI: I do apologize. Mark, I had you on my list. I skipped you by accident, so Mark Alexander and then I'm going to go to Mike; and then we're going to caucus and vote on the option.

MR. ALEXANDER: I oppose this motion. The region from Connecticut to New York is in this position because of two things, one is some questionable MRIP estimates, and the other is that the shift in abundance to this species has put us in harm's way. I think that as these options were developed by the working group, the intent was to try to move away from state-by-state management; based on the 1998 shares. I think that this option draws us more back in that direction. I think to truly address the issues in this fishery for this year; I don't believe that this option is fair and equitable for our region.

CHAIRMAN LUISI: Mike, did you have one last comment?

MR. RUCCIO: We plan to abstain on not only the motion to substitute, but probably all of the alternatives that are under consideration; and part of the reason for that and what I wanted to say. It was germane, maybe more so to Option Number 5, but possibly even to this one is, under the conservation equivalency regulations the Regional Administrator makes a determination that conservational equivalency has been achieved.

The basis for that determination is a recommendation from this Board. As options are debated, we will need to, whatever system is finally enacted, understand that that has from the Board's perspective both through their gut feeling in some of these and through analysis and explanation, has achieved conservation equivalency. That usually comes in the form of a letter. But on the specifics of which alternative, we're going to abstain on those and then we'll make our judgment on the determination whether or not conservation equivalency has been achieved by what we get back from the Commission.

CHAIRMAN LUISI: Thanks for clarifying that Mike. Toni, did you have a point of clarification?

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MS. TONI KERNS: I just want to clarify to the Board that under the way this option is established, New Jersey is a part of the Connecticut through or the New Jersey through Connecticut region, and that they have a provision within there to adopt area mode specific regulations within that region. But they are still part of the region, so if one state does not put in place measures that are conservation equivalent it impacts the whole region; is the way the addendum is set up, versus that just impacting the state.

CHAIRMAN LUISI: The way I see this though is that New Jersey would have the option for a Delaware Bay fishery and size limits, as long as all the other states within that region were afforded that same opportunity. They may not enact that opportunity, but they would be afforded the opportunity.

MS. KERNS: That is correct; and the cumulative regulations from the region add up to what the reduction is needed.

CHAIRMAN LUISI: Okay thanks for that clarification Toni and Bob. Let's take a one minute caucus and we'll come back and call the question. Okay so back to the Board. While in Kirby's presentation earlier he addressed that there was considerable discussion and comment raised by the public through the public comment process.

I will entertain public comment, but I'm only going to take one comment in support of and one comment in opposition of the current motion that we're about to call the question on. I would ask that you keep that comment to two minutes. I'll look at the room right now. Is there anybody in the audience that would like to comment in support of the Option 2, as modified? Okay seeing no support. Frank.

MR. FRANK BLOUNT: I would like to speak in favor of this motion. I think Bob Ballou laid out a very, very good case there on the ten points.

If you go through the last few years, I'm going to represent the party and charterboat side, especially the party boat side. Party boat landings are down to about one-third of what they used to be.

The private shore mode is down to about a third of what they were. The problem we're seeing now, whether it's the data or the fishery, is the private recreational anglers catch has not changed significantly. It has gone from 2.1 million fish to over 1.8. There is a reduction, but the other two modes are down to about a third of what they were.

We don't have specific regulations for party and charter. Well we do have specific regulations for the shore mode in some states. I think this motion addresses some of those concerns with the shore mode and the Delaware Bay and how that works down that way. I know people say we're 20 years away from the 1998 allocation, which we are. In this motion it changes that allocation from 60 to over 80 percent for those states. If you're fish sharing, I think this does accomplish that. The comment was made with the different regulations between the states. Massachusetts and Rhode Island have had different regulations for years with different size limit, and we've had no problems there. There are problems between New York, Connecticut and Rhode Island; I've perceived problems there. I do feel bad. Most of my good friends live in New York and they're here in the room today.

But this motion and what this Commission and Council have done for the last few years has not addressed the problems. The fluke amendment has been on the board for years, and the Council has chosen not to do anything with it. I urge that you move forward with the amendment and I also urge that you would support this motion. Thank you.

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CHAIRMAN LUISI: Thank you Frank. I will look to somebody speaking in opposition. Tony DiLernia.

MR. ANTHONY DiLERNIA: I don't support the motion. The primary reason why I don't support the motion is because recreational fishermen want the opportunity to go fishing. It's that simple. When a fishery is closed they can't go fishing. Option 2 for most of the states, well for Connecticut, New York, and New Jersey, the number of days available for fishing opportunities goes down to 96 days.

That cuts right into when summer flounder are typically available in those waters. At the same time it gives Rhode Island 184 days of fishing opportunity. Well, quite frankly that covers the entire time summer flounder are in the waters of Rhode Island. Option 5 gives the states of Connecticut and New York, New Jersey 128 days; which still cuts into when the fish are available to the recreational fishermen of the state.

But it gives them more days than Option 2. By the way, Option 5 gives Rhode Island 245 days of fishing opportunity. Summer flounder are not in the waters of Rhode Island that amount of time. What this comes down to in a sense is for some states well, good for us, hooray for me; and for other states, well too bad for you.

That's what Option 2 does. I don't agree with that. I think that Option 5, which gives the maximum number of fishing days to the entire recreational community along the coast, is the way we should go. I understand New Jersey's issue with the minimum size of 19 inches in ocean waters.

Perhaps if Option 5 is passed, the Board can later on revisit the concept for something New Jersey has been asking for, for years. Whereas, I believe Barnegat Bay south that the minimum size be more consistent with the Delaware Bay regulations. That is something I believe has

merit and should be examined, but only after Option 5 is adopted.

CHAIRMAN LUISI: Okay we're going to come back to the Board, and during that public comment I received some guidance from the Service, and staff is going to provide us the thoughts on the guidance from the Service.

MS. KERNS: In thinking about how we did this last year, we allowed New Jersey to be their own region. Part of the rationale for having New Jersey be their own region is because in the Council framework to do regions, all states within the region have to have the exact same size, bag and season. In order for conservation equivalency to work under the federal plan, all the regulations have to be the same. Under this option, if New Jersey were to adopt separate regulations for Delaware Bay, then there would be different regulations within the region and that would not work for the federal government; under the framework that the Council has for regional approach. In order for this to work in both state waters as well as federal waters, we would need to have New Jersey be their own region.

CHAIRMAN LUISI: Are we able to modify this, Toni? Was there a thought as to how we would modify this motion to make it clear that New Jersey could and will be their own region, since it hasn't been analyzed?

MS. KERNS: I could give it to you in words; I couldn't give it to you in percentages and numbers. Do you want me to give you words?

CHAIRMAN LUISI: There have been a lot of words today, so yes words are fine.

MS. KERNS: And require the region of – I'm going to say it slowly for Amy – Connecticut through New York and the region of New Jersey to enact management measures for 2017 aimed at achieving a 43 percent reduction in harvest relative to 2016. The table would no longer

apply, because I don't know what the numbers would be and I don't know how you would share those 240,988 fish. I don't know how to proportion all of that out on the fly.

CHAIRMAN LUISI: I understand that and it is the reason why sometimes on the fly doesn't work best for the Board. They should have been thinking about this as we developed these tables. It is a hard thing, because you certainly have an intention. There was support for that intention to be included.

But not knowing now what that table looks like I think is a challenge for the Board. In my mind it is. I'll leave it at that. Given that we made an adjustment here to the motion, I'll look to the Board for any particular comment before we call the question. Seeing none; is there a need for another caucus? All right seeing none; I'm going to go ahead and call the question. I guess I need to read the motion into the record first.
Move to substitute to adopt Option 2, revised by substituting one inch minimum size increase with 30 percent reduction.

As revised the option will require the regions of Massachusetts, Rhode Island, Delaware through Virginia and North Carolina to enact management measures for 2017 aimed at achieving a 30 percent reduction in harvest; relative to 2016, and require the region of Connecticut through New York and the region of New Jersey to enact management measures for 2017 aimed at achieving a 43 percent reduction in harvest relative to 2016, and that states within a region may adopt mode or area specific regulations; as long as they are afforded to all states in the region.

Is the Board ready for the question? All those in favor of the motion to substitute please indicate by raising your hand. **Two, all those opposed like sign, it is eight opposed, any null votes, any abstentions; two abstentions, the motion fails for lack of majority. We are now**

back to the main motion, any comments on the main motion? Eric Reid.

MR. ERIC REID: I just have a question. Because of the nature of this motion, this is new ground; where 28 to 32 percent equals 41 percent in some magic math. I love magic math. But what happens if we approve this and the Service says no?

CHAIRMAN LUISI: If we approve this and the Service says no, the non-preferred alternative, which was agreed upon in December; jointly with the Council, would be what the Service would implement on a coastwide basis.

That motion would establish, based on the motion a 19 inch total length minimum size fish with a four fish possession limit and an open season from June 1st through September 15th; would be what the coastwide measures would be, with the caveat that when final MRIP estimates are available that 41 percent reduction may change and that the non-preferred alternative may therefore change, as it relates to the MRIP estimate from 2016. That was part of the discussion on what I had mentioned earlier about risk, and Mike spoke to the issue.

We heard the Technical Committee report that their both quantitative and qualitative approach to this is something that they feel confident in. Mike Ruccio mentioned that in order for us as a Board to be seen as achieving conservation equivalency, we would need to state that this option achieves conservation equivalency, and we need to be confident in that; not only using quantitative approaches, but more qualitative approaches as well, given MRIP estimations and error around the point estimate. I'll leave it at that for now. Toni and we'll come back to you, Jim.

MS. KERNS: Mike, I just want to ask a clarifying question to Mike Ruccio. Would it be the non-preferred or would it be the actual coastwide

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measure that was established? Not the precautionary default, but the coastwide measure, which I believe – I thought it was 20 inches – but I could be wrong.

MR. RUCCIO: Happy to clarify. The precautionary default is 20 inches, two fish, July 1st to August 31st. The non-preferred coastwide was 19 inches, four fish, June 1st to September 15th.

MS. KERNS: Which one would you enact?

MR. RUCCIO: If the Board were unable to achieve conservation equivalency, we would implement the non-preferred coastwide measure.

MS. KERNS: And if you did not agree with Option 5, what would you pick?

MR. RUCCIO: I believe it's the non-preferred coastwide measure. The precautionary default, if you kind of sort through when Framework 2 I think it was, was put into place. There were some concerns that perhaps states would not comply with the Board's development of measures; and so the precautionary default is more of a backstop for a state that either was unable to or unwilling to implement measures that were agreed upon by the Board.

There is I guess a variation on a theme. If the letter came to us and said we've achieved conservational equivalency for all states except X, the Commission would actually recommend that we implement the precautionary default for that state. Then it would be up to its own devices to consider whether it needed to consider finding noncompliance and so on.

CHAIRMAN LUISI: Thanks for that clarification. Do we need to caucus? I think we may. Jim.

MR. GILMORE: Just one addition to that. I think it has been stated a little bit too black and white in terms of how we do this. A few years ago in

San Diego, when we met with the state directors and NOAA Fisheries, we kind of established that we actually, we're not even partners in managing this fishery, we're allies.

I don't think we're going to give them Option 5 and then wait anxiously until something comes out the other end. Any of that decision by the federal government will be iterative, and we're hoping that that process or whatever will get us to where we need to go. Again, I think it is the required reduction. If they can do it quickly enough, if there was an issue with it that it couldn't accept that I imagine we would still have an emergency option to come back to this Board and put up another option.

MR. O'REILLY: The last thing Jim said is what was on my mind as to why we didn't have a backup option; just in case. More and more I feel from my perspective that Option 1 would be a choice for Virginia, but this is the first time being in a region that you have three different states trying to decide something.

Option 1 is not going to be something that I'm going to move forward. I have stated before that I do like Option 5, because I've been through the mill, as some of us have, trying to either liberalize or reduce with lack of success. I think Option 5 sort of gets right at the heart of that. But I don't know whether what Jim said about having an emergency has to be that way, or should today if it is at all possible can we even have a backup option; should these coastwide default be put in place, because that certainly would be not very palatable down the southern end.

CHAIRMAN LUISI: Rob, if that's a question for me, I would see a backup option as weakening the position that the Board would take with the Service as to what Option 5 is. I'll leave it at that. I don't have any other comment regarding having a backup for that. I see hands going up. Folks, we do need to wrap this up. We're well outside of our time allotted. I do understand

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the importance. I'll take a couple more quick comments, and then we're going to have a caucus and then call the question.

MR. BALLOU: This is déjà vu all over again, because this discussion we're having right now is very reminiscent of a discussion we had at our meeting in December. The Addendum on Page 9 under 3.1, Default Management Approaches states; Unless an alternative management approach is selected for implementation via this addendum, management of the 2017 recreational summer flounder fishery will default to state-by-state allocations based on 1998 harvest in order to restrict harvest to the RHL.

I need clarification as to what would be the ramifications of this option not being approved by NOAA Fisheries. Would the default be to our 1998 based conservation equivalency program, or would it be to the measures that Mike spoke to; in terms of the precautionary default or the coastwide measure?

MR. LUISI: If NOAA Fisheries does not approve the selected option, it is of my opinion, and I can be corrected that the non-preferred coastwide measure will be put in place. The only way to return to conservation equivalency at a state-by-state level is to move on Draft Addendum XXVIII with the no action alternative. By taking no action at all on this addendum, we now default back to the prior to regional management, because this is a continuation of regional management into 2017. The only way to get there is to vote on the option of no action in this addendum. Okay, Nichola.

MS. MESERVE: I just wanted to turn the question to staff as to whether they agreed to the timeline that has been suggested for the ability to come back and select a default measure, in the event that NOAA Fisheries determines this does not achieve conservation equivalency. Without a commitment today from NOAA Fisheries, I am really struggling to

even consider this option, because of the risk of the coastwide measures.

Other than that I am concerned that this option does also not revise the RHL or the Recreational ACL, which is what we will be measured against down the road; in terms of the accountability measures. There is a risk down the road as well of reduced harvest limits, because of those accountability measures from the action that we take today.

Lastly, while there has been hesitation to say what the resulting reduction rates are per region from this option; it is notable that Rhode Island, for example, ends up with a projected harvest or target, whatever you want to call it; that is 34 percent under Option 5, and Connecticut through New Jersey's is 32. As you've said, 83 percent of the coastwide harvest in 2016 was attributed to that region. If we're not taking the cuts there then whatever we do along the coast is not going to make a difference, in terms of achieving the RHL.

CHAIRMAN LUISI: Regarding your question about how with process if NOAA Fisheries does not support Option 5 if it were to pass, would there be a process for which the Board could have an emergency meeting and select another alternative. I don't know, Bob, if you want to address that.

EXECUTIVE DIRECTOR ROBERT E. BEAL: There definitely is a process where the Board can get back together and take additional action to decide what the next alternative would be, if this one is not accepted by NOAA Fisheries. The question is what would that venue look like; would it be a conference call, which is kind of cumbersome and unwieldy?

Would it be a face-to-face meeting, which would be difficult to schedule. NOAA Fisheries probably isn't going to make this decision over the next few days. We may not know for a little while, and that may get us close to the May

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meeting anyway. The timing of this probably is a bigger part of the decision than can we get back together.

We can definitely find a way to get the Board back together, it's just we don't exactly when to do that and we don't know the outcome. Given your statement that as a Chair you're concerned it would weaken your position to do that now, and kind of dilute the Board's support for Option 5. Then maybe we wait, see what NOAA Fisheries says, and then react to that through another meeting or some other opportunity to get back together.

CHAIRMAN LUISI: Okay so there is a process for which, if an addendum is finalized that you could go back and revisit the selected alternative in an addendum without initiating a new addendum and going through a full public process. I guess that was more my question.

EXECUTIVE DIRECTOR BEAL: Yes. Given the conversation that's on the record right now, and the Board is doing this with the realization that in order for this to be effective NOAA Fisheries will have to recognize this action taken by the Board and accept the conservation equivalency statement from the Commission, then I think the record is clear that if this doesn't work the Board is going to have to do something else.

CHAIRMAN LUISI: I have one last comment with Adam and then we'll finish up with you, Mike and then we're going to move on.

MR. NOWALSKY: The comments we've heard from New Jersey today notwithstanding, let me just offer that I am heartened by a lot of the things, not only have I heard but a number of actions that I've seen, documents I've seen. TC documents finally recognizing in paper, in writing for us to consider that the process we have of using the previous year's landings to project next year's landings simply don't work. Whether it is a function of that process, a

function of the data, something combined. (beep)

CHAIRMAN LUISI: I'm sorry, Adam that was my mistake. I was just turning off my microphone.

MR. NOWALSKY: Was that retaliation (beep). I see where this is going. Apparently my good luck comments this morning were not well received. That being said, I remain heartened by the fact we're finally realizing that. I do not believe in my heart that there have been any ill intentions of the last ten years of our attempts at management.

But that being said, our management program has failed us. Our management program has failed the fishermen we represent, and now today more so than ever the management program is going to fail the resource by directing efforts onto the biological reproductive capacity of the fish. That is just a terrible statement to come from this Commission.

We heard the comments that this option was going to go ahead and provide a fishery for every state that this would affect. The Chairman made the comment about the earlier motion to postpone had risk inherent in it. Well let me tell you what, this option has no risk. It will destroy the fishery in New Jersey. It does not provide a sustainable option. It should come as no surprise that New Jersey will not support this option. We've heard some comments around the table today about a preference for Option 1.

I might encourage some more debate and discussion about that on the merits of the fact that it keeps a majority of states that this would affect at status quo; which is a position that New Jersey has advocated for. I think it would behoove the Board and those states that have considered it, to further put it on the record and have more discussion about it.

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CHAIRMAN LUISI: Okay I'm going to take a one minute caucus; I'm sorry, Mike.

MR. RUCCIO: You can feel free to beep me off too if you need to, people might welcome that. I just wanted to speak a little bit to the concerns that we've heard around the table about what the Service may or may not do; with specifically this alternative. Let me try to be as clear and as transparent as I can be.

The way the conservation equivalency process works actually shifts quite a bit of that burden back to this body, the Board. We're awaiting a recommendation from the Board that conservation equivalency has been achieved; the white smoke. What we need to have is documentation that explains how these measures, or whatever measures are ultimately decided upon, are in fact going to be the conservationally equivalent measures that ensure that we have a high probability of achieving the recreational harvest limit.

Earlier today you heard me raise some concerns about relying on the percent standard error or one standard deviation and the RHL falling within there. I think we need to better understand the Technical Committee's analysis on that and their thoughts on that; as I phrased it earlier, the assurances that it won't be on the high end of the range.

We'll be looking for that kind of documentation, but that's going to come from this body and this body's staff. Our determination to implement conservation equivalency becomes a function of the documentation that we receive that give us assurances that the measures that are put forward are going to work.

In years past it's been this very formulaic approach, where here's the percent reduction that's necessary, here is the percent reduction that all states used in crafting their measures. I also spoke highly of and am pleased to see that

there are alternative approaches being attempted for this year.

But at the same time on the back end of that regardless of the fact that there are new approaches, trying to deal with the uncertainty of the MRIP estimates, we're bound by a point estimate for the RHL. The ACL is a point estimate, and so we need to understand how what comes forward will function with that.

I know that doesn't directly answer, but it is something that we're poised and ready to consider. It's something we'd like to work with, but we have to understand when it comes to us that it's going to work. If the documentation can support that decision then I think you have our answer. If it's not then we're going to have to think about it. I think until that process unfolds that is as directly as I can answer; will we or will we not.

CHAIRMAN LUISI: I'm not sure anybody ever expects a direct answer without seeing all the information available. But thank you for that clarification. We're going to take a one minute caucus, because I need to talk with my delegation and we'll come back for the vote. Okay back to the Board. I'm going to read the motion into the record.

Move to approve Option 5, more coastwide consistency from Section 3.2 with the removal of the following language. Of particular note, Option 5 is calculated to achieve a 28 to 32 percent coastwide reduction; depending on the sub-option. Less than the required reduction of 41 percent that Options 1 through 4 are designed to address; motion by Mr. Gilmore, second by Mr. Gates. Is the Board ready for the question?

MR. BALLOU: Roll call, please.

CHAIRMAN LUISI: We can do a roll call. I'll turn it over to Kirby for the roll call.

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MR. ROOTES-MURDY: Going north to south again; Commonwealth of Massachusetts.

MS. MESERVE: No.

MR. ROOTES-MURDY: Rhode Island.

MR. BALLOU: No.

MR. ROOTES-MURDY: Connecticut.

MR. ALEXANDER: Yes.

MR. ROOTES-MURDY: New York.

MR. GILMORE: Yes.

MR. ROOTES-MURDY: New Jersey.

MR. BAUM: No.

MR. ROOTES-MURDY: Delaware.

MR. CLARK: Yes.

MR. ROOTES-MURDY: Maryland.

MS. DEAN: Yes.

MR. ROOTES-MURDY: Potomac River Fisheries Commission.

MR. SCHICK: Yes.

MR. ROOTES-MURDY: Virginia.

MR. O'REILLY: Yes.

MR. ROOTES-MURDY: North Carolina.

MR. BATSAVAGE: Yes.

MR. ROOTES-MURDY: U.S. Fish and Wildlife Service.

MS. WHITE: Abstain.

MR. ROOTES-MURDY: National Marine Fisheries Service.

MR. RUCCIO: Abstain.

CHAIRMAN LUISI: **All right motion carries 7 to 3 with 2 abstentions.** The next thing we have to do, we're going to take up the timeframe of the addendum; whether the timeframe will be for one year or two years. I'm going to look to the Board for a motion to that. Jim.

MR. GILMORE: **I move to approve Option B for the two-year timeframe.**

CHAIRMAN LUISI: Is there a second for that motion? I'm looking for the option here in the draft. Kirby is telling me it's Option 2.

MR. ROOTES-MURDY: Yes just to clarify in reference to the timeframe option it is Option 2, for two years or for 2017 and the ability to extend through 2018 in Section 3.3.

CHAIRMAN GILMORE: That's correct, I agree.

CHAIRMAN LUISI: That does not require that the addendum is in place for 2018, it just allows the Board to make an extension so that we don't necessarily have to have a three hour debate next year in February. I'll leave it at that. Is there a second on the option for 2017 with the extension? I know I'm looking for a second. Chris Batsavage seconds. Is there discussion on the motion? Okay seeing no discussion do you need to caucus on this?

MR. O'REILLY: What are we extending? I guess that's my thought. Are we extending this particular option for two years, are we extending what's in the addendum as possibilities for two years? I want to be clear on that. Then there is probably merit to the two years, if you think that MRIP by 2018, somewhere in that process maybe later in the year is when we all get hit with that. That is going to be enough to deal with for everything,

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and staff does have a lot of incredible work just to get through to where they did now. I guess my question though is still what's that entail? What will be carried over?

MR. ROOTES-MURDY: On Page 17 of the document, management for 2018, it lays out that if the Board chooses to continue one of these alternative options that's selected, it lays out that if the coastwide RHL is exceeded then region specific harvest will be evaluated with the understanding that more restrictive management measures will be needed to constrain regional harvest in 2018.

If the predicted 2018 combined regional harvest is higher than the 2018 RHL, regions will have to adjust their management measures in 2018. Now I will note that that offers a direction or information on how we go in one direction, but it doesn't necessarily give good guidance on how we go in say another direction; if it's well under the 2018 recreational harvest limit.

MS. KERNS: Just to clarify for Rob. I think it just approves this methodology that you're choosing, and that it has the ability to extend that into the next year. The numbers are the new numbers every year.

CHAIRMAN LUISI: And in the event we choose not to extend the methodologies, we could initiate a new addendum to reconsider alternatives that were discussed today or other options that we could come up with.

MS. KERNS: Correct, yes.

MR. NOWALSKY: I cannot in good conscience support any option that only provides us unidirectional information on how to adjust measures moving forward. As Rob indicated earlier that is what got us in the box in the first place. We had no mechanism in place for how to account for reductions. That is why we've sat here for three plus hours now. To now say we're going to put a reduction methodology in

place but not have one to have potential to go in the other direction; I can't support that. **I move to substitute Option 1; one year only.**

CHAIRMAN LUISI: Okay let's get that on the board and then I'll look for a second. I guess that's what Amy thought of your option there.

MR. NOWALSKY: Would "Go Eagles" help, Mr. Chairman?

CHAIRMAN LUISI: "Go Falcons" is more like it; nothing against my colleagues from New England. All right while we're working on getting that back up on the screen I'll take questions. Eric. Eric will second the motion; any discussion on the motion? We won't vote on it until it comes back on the screen, but if there is any discussion on the motion just to stay with 2017. What that would mean is that we would need to consider another addendum next year for moving forward in 2018. Nichola.

MS. MESERVE: I'm in support of the substitute motion. Despite the language in the draft addendum, I'm still not really sure what extending the provisions mean. Option 5 picked a size limit and a bag limit and applied them to states, so that methodology would mean that the Board would be making those decisions without the opportunity of public comment through an addendum process.

It doesn't sit very well with me, so I would prefer to the one year. In addition we've heard that the Technical Committee wants to suggest some revised methodologies. We still have 1998 as a reference year on the books; and there is some interest in moving away from that. The addendum process is the avenue for that if desired.

MR. GILMORE: Just to echo your comments, Mr. Chairman, all this does is give us the option that if this does work that we don't have to go through this laborious process next year. If we want to just do something different, going for

the two year doesn't preclude that. I'm opposed to the motion; but again I don't think a lot of people understand this is not tying our hands in doing this next year. We can completely go for a whole new thing. But if this works or whatever, we can just cut the corners and not have to sit through another multi hour meeting.

CHAIRMAN LUISI: Yes it's not just the multi hour meeting, but again to the point if this were to work the addendum could be extended without going back to the public and doing public hearings. It's an administrative efficiency. That's how I see it. We still have the option next year to move for a new addendum to address concerns that may arise. Bob.

CONSIDER FINAL APPROVAL OF ADDENDUM XXVIII

EXECUTIVE DIRECTOR BEAL: This technological situation may take more than a minute. The motion is straightforward; do you want it one year? You know the current motion to substitute is just for the current year. Vote on that. If that passes then that is the main motion or it goes back to the two year.

CHAIRMAN LUISI: Okay so let's, based on that advice let's go ahead. Do we need a caucus? Rob.

MR. O'REILLY: So just listened to a couple comments. I think they're right, and I think Nichola's comment is very good. Is there some way that even though we extend the addendum that we also leave room to look at the new technical information and anything else that pertains to the 2018 fishery; without making it exactly like we went through today. Is there some way to do that? That's a question.

CHAIRMAN LUISI: I think Rob that if we wanted to explore something different than what Option 5's methodologies were for next year, we would have to initiate an addendum to do

so. But it is completely within the Board's per view to do that. The option to extend is an efficiency for the Board.

That's the way I've seen it and thought about it in the past. We're going to go ahead and call the question. **We have a substitute motion for Addendum XXVIII for 2017 only. All those in favor of the motion for the 2017 only, please raise your hand. All those opposed like sign; any abstentions, two abstentions any null votes? Motion fails four to six to two.**

Back to the main motion for Option 2 for the 2017 and the ability to extend Addendum XXVIII through 2018. Is the Board ready for the question? All those in favor please indicate by raising your hand. **Eight in favor, all those opposed like sign, and two opposed any null votes, any abstentions; two abstentions, motion carries.** Okay we need one last motion to approve the addendum as modified today. Emerson.

MR. HASBROUCK: I move to approve the addendum as modified today. Do I need to name the addendum?

CHAIRMAN LUISI: That would be good.

MR. HASBROUCK: I move to approve Addendum XXVIII as modified today.

CHAIRMAN LUISI: Do I have a second? John Clark. Any discussion on the motion? Adam.

MR. NOWALSKY: There has been a lot of discussion here today. My primary takeaway at this point is that we remain concerned about the Service's ability to implement Option 5. I think the Service has information to take home today that the intent of the Commission would be to implement Option 5.

Given that and the fact that we're going to meet in two weeks, **I think it would behoove this Board to give the Service time to evaluate**

that and give us a final answer before we take action, and to that end I would move to postpone final action on this addendum until the joint meeting in Kitty Hawk.

CHAIRMAN LUISI: Okay I have a motion; do I have a second on the motion to postpone final action? Eric Reid. Discussion on the motion? Mike.

MR. RUCCIO: I appreciate the intent of this, and as I referenced earlier I know people are uncomfortable with the uncertainty; and there is probably a really bad MRIP joke there that I won't make. I don't know that we're going to be able to tell you definitively, because our decision is predicated on receiving the memo that conservation equivalency has been achieved.

In two weeks-time I don't expect that states are going to be able to go off and codify the measures that are outlined in Option 5, so I'm not sure the Commission would be able to bring us that letter. If I'm mistaken on that process wise, great. But that is the process as it normally unfolds. We typically get that letter in late spring, April sometimes even into May; depending on states individual process. That's our decision point in the conservation equivalency process, so I think two weeks is a very tall order.

CHAIRMAN LUISI: Any other comments on the motion to postpone? Rob.

MR. O'REILLY: I also understand what Adam has just said, but I think our role is to have some certainty about what we just passed. Regardless of how it ends up, I think that that is a part of what we're doing today. A lot of comments that the methods we've tried in the past didn't work. Year X to year X plus one doesn't work very well, never has. I think we should just go ahead and not wait.

MR. RUCCIO: One other quick thought here to is we have been working with the Technical Committee, we certainly will continue to work with the Technical Committee. We will continue to work with states through this. I don't want people to think that we are now separate groups. You're going to send us a letter and we're either going to go thumbs up or thumbs down and that's it.

We envision and plan on in the interim before we get that letter to continue to try to understand how these things are going to work, how and why the measures would be successful. I think it will be an ongoing process; rather than just a stark decision point on our behalf.

CHAIRMAN LUISI: Does the Board need time for a caucus on this? Are you ready for the question? Seeing no caucus; **so the motion to postpone final action on Addendum XXVIII until the joint meeting in Kitty Hawk; motion by Mr. Nowalsky and seconded by Mr. Reid. All those in favor of the motion please indicate by raising your hand.**

That is two in favor, all those opposed raise your hand please; that's ten opposed, any null votes, seeing no abstentions, motion fails for lack of majority so we're back to the main motion. We have move to approve Addendum XXVIII as modified today; motion by Mr. Hasbrouck, seconded by Mr. Clark. This is a final action of the Board so we're going to do a roll call vote on this action. Kirby.

MR. ROOTES-MURDY: Going from north to south, Commonwealth of Massachusetts.

MS. MESERVE: Yes.

MR. ROOTES-MURDY: Rhode Island.

MR. REID: We're not sour grapes, we all have planes to catch; we vote no. Just so you know we're not walking out.

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MR. ROOTES-MURDY: Connecticut.

MR. ALEXANDER: Yes.

MR. ROOTES-MURDY: New York.

MR. GILMORE: Yes.

MR. ROOTES-MURDY: New Jersey.

MR. BAUM: No.

MR. ROOTES-MURDY: Delaware.

MR. CLARK: Yes.

MR. ROOTES-MURDY: Maryland.

MS. DEAN: Yes.

MR. ROOTES-MURDY: Potomac River Fisheries
Commission.

MR. SCHICK: Yes.

MR. ROOTES-MURDY: Commonwealth of
Virginia.

MR. O'REILLY: Yes.

MR. ROOTES-MURDY: North Carolina.

MR. BATSAVAGE: Yes.

MR. ROOTES-MURDY: U.S. Fish and Wildlife
Service.

MS. WHITE: Yes.

MR. ROOTES-MURDY: National Marine
Fisheries Service.

MR. RUCCIO: Yes.

CHAIRMAN LUISI: **Motion carries 10 to 2 with
no null votes and no abstentions.** Okay so that
concludes Item 4 on our agenda. Now I know

that there are people who have planes to catch. There is an interest from folks from what I've heard from Bob about recessing this Board until the conclusion of the Striped Bass Board, which would mean I would need a motion to recess until the conclusion of the Striped Bass Board if that's the wish of this Board. We would come back after the Striped Bass Board and take up the final items on the agenda dealing with scup and black sea bass. Is that in the interest? We're well beyond the time that we've dedicated for this agenda item, but it was a good discussion and it was a needed discussion. We have a number of members of the audience who are here I know for the Striped Bass Board, as well as folks from New England who want to participate in that discussion. I'll look to the Board for that direction. Bob.

EXECUTIVE DIRECTOR BEAL: Just before the Board comments. I think as you say we're running a bit late, and that is not a criticism at all. Item Number 5, Black Sea Bass Commercial Landings; that was really just a precursor to the Kitty Hawk meeting, I think we can probably skip that one altogether.

When you look at the striped bass agenda there are two items on there, which are the Terms of Reference for the 2018 Stock Assessment and the Population of the Stock Assessment Subcommittee, I think we can do both of those via mail or you know electronic; circulate those and see if there is Board approval.

I think we can accelerate by removing those agenda items from the Striped Bass Board and from this Board. If the group agrees to recess now, we'll just handle essentially the Technical Committee report and any discussion in the Striped Bass Board and then come back here for the scup addendum, as well as the scup recreational regulations.

The scup recreational regulations, good news is I don't think the states have to take any reductions there. The MRIP numbers worked

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out. I think we can do all those things pretty quickly. But there are some folks on the Striped Bass Board that need to catch flights and wanted to participate in that discussion of the Technical Committee report.

CHAIRMAN LUISI: Okay so again, we have a few items over the next short bit of time that we want to cover. Is there an interest of this Board to just get through the last two action items, Considering the Scup Draft Addendum for Public Comment and Scup Recreational Fishery Specifications? I'm looking at Kirby to give us an idea.

MR. ROOTES-MURDY: We can go through that in five minutes or less.

CHAIRMAN LUISI: Okay let's, unless there is an interest to recess we'll go ahead and try to get through these two very quickly. Then we'll convene the Striped Bass Board. But if the discussion begins we're going to recess, because we certainly want all of the members of the Striped Bass Board to participate on the Technical Committee Report.

**CONSIDER SCUP DRAFT ADDENDUM XXIX FOR
PUBLIC COMMENT**

MR. ROOTES-MURDY: We're talking about Draft Addendum XXIX. This addendum was initiated by the Board in conjunction with the Council at their joint meeting in December last year, and I'm going to skip over much of my presentation and just focus on the proposed management programs.

What we're talking about today is the start and end dates for the summer period of the trimester quotas. The first alternative that is proposed in the management program of this draft addendum document is for a no action or status quo; which would be leaving the current trimester start and end dates the same. The second alternative is to move October to the Winter 2 period, so basically it would change the number of days you have open in Winter 2

starting it on October 1st, rather than on November 1st. The third alternative and it has subcomponents to it that I'll walk through quickly, is to move October to the Winter 2 period, and to move the first two weeks of May, to the summer period.

That's pretty straightforward in that you move two weeks into May it increases the Winter 1 period. It also increases the Winter 2. Now the three sub-alternatives are that Alternative 3A is to modify the dates of the quota periods as described under Alternative 3 and leave the Winter 1 and summer quota counting procedures unchanged.

The Alternative 3B is to modify the dates of the quota periods as described under Alternative 3 and modify the end date of Winter 1 and summer quota counting procedures. Alternative 3C is to modify the dates of the quota period as described under Alternative 3 and modify the start and end dates of Winter 1 and the summer quota counting procedure.

With that the Board would need to consider approving this draft addendum for public comment, and then the Board and Council would take up final action on this draft document at the ASMFC Spring meeting in May. I know I went through that very quickly; but I'll take any questions if needed.

CHAIRMAN LUISI: Do we have any questions then we'll take comments as well from Kirby. Steve Heins.

MR. STEVE HEINS: Kirby, can you assure me as to the quota periods, the quota for the periods. The quotas will not change, right?

MR. ROOTES-MURDY: That's correct. The quotas under these alternatives do not change; it is the start and end dates for Winter 1, summer and Winter 2.

CHAIRMAN LUISI: Steve, follow up.

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MR. HEINS: But the change to the procedures for accounting that doesn't affect the quotas, right?

MR. ROOTES-MURDY: I don't believe so. Basically, for example for Alternative 3C, state only permitted vessels in state waters during May 1 through May 15 could count towards the Summer period quota for those states; although these dates would be modified, the length of the period during which these special quota counting procedures could be in effect would remain unchanged for two weeks. The regulations would also be modified such that the states would have to request the special provisions by May 1. There is some changing in how we normally do our procedures for accounting of that quota; if that makes sense.

MR. O'REILLY: I have a different kind of question. In Virginia we have such a small summer quota. A day can make a difference, so which of the options, since you put them up there pretty quickly; and I have seen variations of this before. But which of those options reduces the summer period the most?

MR. ROOTES-MURDY: In terms of options that reduces the summer period the most in terms of the number of days that this summer period is open; that would be Option 3, it reduces it down to 138 days. Currently it is at 184 days, Option 2 reduces it down to 153 days.

CHAIRMAN LUISI: Okay I'm looking to the Board for direction as to whether or not we want to move on this to take it out to the public. Steve.

MR. HEINS: I would move to take this out to the public. I'm assuming there is a motion made. Move to approve Addendum XXIX for public comment.

CHAIRMAN LUISI: Motion by Steve, we need a second. Adam.

MR. NOWALSKY: Mr. Chairman I'll be happy to second that. I believe the correct reflection is XXIX and that also needs to be changed on the cover page of the document, I believe.

CHAIRMAN LUISI: You're amazing, Adam. Thank you. Nichola.

MS. MESERVE: I'm fine with the motion; I would just ask that staff add a life history section to the draft addendum. At the joint meeting I expressed some concerns about the May change and implications on spawning, so I think some information on life history would benefit the public comment.

CHAIRMAN LUISI: We can make sure that happens. Okay any other discussion on the motion? Do we need a caucus on this one?
Okay so the motion is to approve Addendum XXIX for public comment; motion by Mr. Heins, second by Mr. Nowalsky. All those in favor of the motion please indicate by raising your hand. It is 11 in favor, all those opposed same sign; seeing none any null votes or abstentions, zero, zero motion carries.

ADJOURNMENT

CHAIRMAN LUISI: Okay we're going to take up one last issue. Okay so I just got told that we don't need to do anything on the last agenda item, so with that do I have a motion to adjourn the Summer Flounder, Scup and Black Sea Bass Board? Meeting is adjourned. Next will be the Striped Bass Board and thank you all very much for your patience as we worked through what was a very challenging Board discussion today. Meeting is adjourned.

(Whereupon the meeting adjourned at 11:30 o'clock a.m. on February 2, 2017)

Draft Addendum for Public Comment

Atlantic States Marine Fisheries Commission

**DRAFT ADDENDUM XXIX TO THE SUMMER FLOUNDER, SCUP,
BLACK SEA BASS FISHERY MANAGEMENT PLAN
FOR PUBLIC COMMENT**

Scup Commercial Quota Management



March 2017

Sustainably Managing Atlantic Coastal Fisheries

Draft Addendum for Public Comment

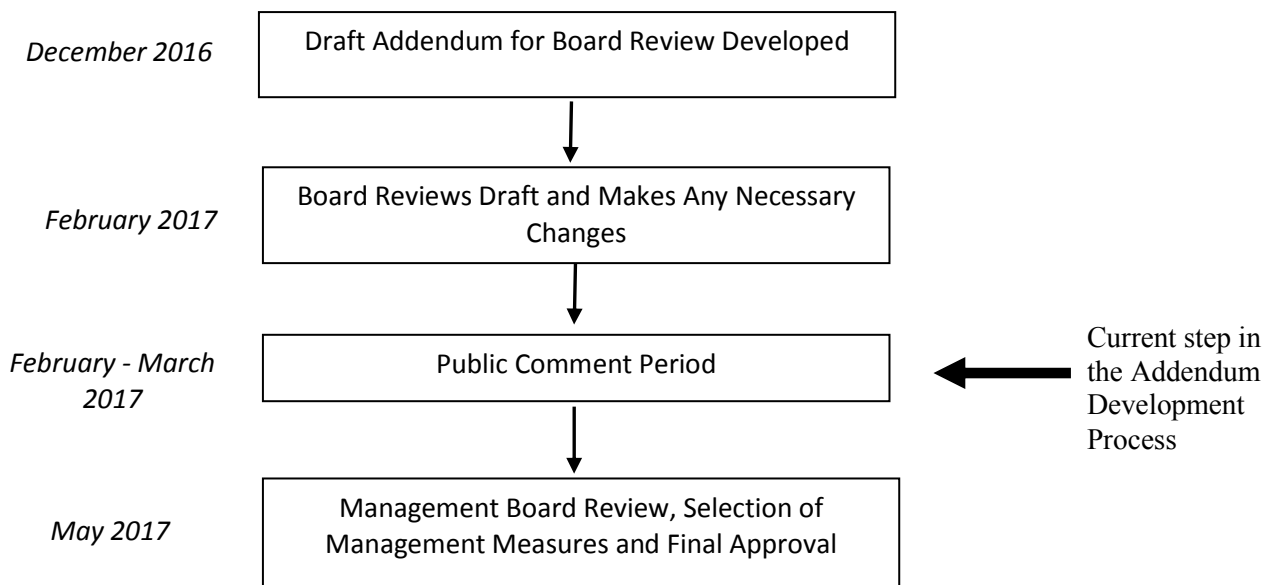
Public Comment Process and Proposed Timeline

In December 2016, the Summer Flounder, Scup, and Black Sea Bass Management Board approved a motion to initiate the development of an addendum to the Interstate Fishery Management Plan (FMP) for Summer Flounder, Scup, and Black Sea Bass. The addendum will address the management of the scup commercial quota periods. This Draft Addendum presents background on the Atlantic States Marine Fisheries Commission's (Commission) management of scup; the addendum process and timeline; and a statement of the problem. This document also provides options of management for public consideration and comment.

The public is encouraged to submit comments regarding this document at any time during the public comment period. The final date comments will be accepted is **March 31, 2017 at 5:00 p.m.** Comments may be submitted at state public hearings or by mail, email, or fax. If you have any questions or would like to submit comment, please use the contact information below.

Mail: Kirby Rootes-Murdy, Senior FMP Coordinator
Atlantic States Marine Fisheries Commission
1050 North Highland Street, Suite 200A-N
Arlington, VA 22201

Email: comments@asmfc.org
(Subject: **Draft Addendum XXIX**)
Fax: (703) 842-0741



Draft Addendum for Public Comment

1.0 Introduction

This Draft Addendum is proposed under the adaptive management/framework procedures of Amendment 12 that are a part of the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan (FMP). Summer flounder, scup, and black sea bass fisheries are managed cooperatively by the states through the Atlantic States Marine Fisheries Commission (Commission) in state waters (0-3 miles), and through the Mid-Atlantic Fishery Management Council (Council) and the NOAA Fisheries in federal waters (3-200 miles).

The management unit for scup in US waters is the western Atlantic Ocean from Cape Hatteras North Carolina northward to the US-Canadian border. The Commission's Summer Flounder, Scup, and Black Sea Bass Management Board (Board) approved the following motion on December 13, 2016:

Move to initiate a scup addendum for the Commission with alternative 1 (no action), alternative 2 (move October to winter II), and alternative 3 (move first half of May to winter I and October to winter II).

This Draft Addendum proposes alternate start and end dates for the scup commercial quota periods.

2.0 Overview

2.1 Statement of the Problem

Since 2011, commercial scup landings have been 20-47% below the commercial quota. In recent years, the Commission and Council Advisory Panel members requested modifications to the dates of the quota periods with all other regulations related to the quota periods, including the allocations and possession limits, remaining unchanged. The requested changes are intended to allow higher possession limits for a longer period of time each year, thus increasing the likelihood that the commercial fishery will fully harvest the quota in the future.

2.2 Background

The Scup FMP was incorporated into the Summer Flounder FMP through Amendment 8 and established several coastwide management measures for the scup fishery. At the time, the scup stock was overexploited. Amendment 8 included several measures to rebuild the stock, including a coastwide commercial quota beginning on January 1, 1997. During development of Amendment 8, the Commission and Council considered, but did not fully develop, a system of quota allocation and possession limits. They agreed to submit Amendment 8 to NOAA Fisheries before fully developing these measures so the other measures in the Amendment could be implemented as quickly as possible and the rebuilding program could begin. However, without trip limits and seasonal allocations, the annual quota could be fully harvested early in the year, which could have economic implications for the entire fishery and created the potential for issues regarding equitable access to the fishery. Traditionally, larger vessels harvested scup offshore during the winter months and smaller vessels harvested scup inshore during the summer. If larger vessels harvested the full annual quota early in the year, smaller vessels

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would not be able to harvest scup in the summer. To address this issue, the Commission and Council developed three quota periods, each allocated a percentage of the annual commercial quota and each with different possession limits. These measures were first implemented in 1997 through a regulatory amendment to the FMP (MAFMC 1996 & ASMFC 1996).

The dates of the quota periods and the allocation percentages have not changed since they were first implemented. These measures include a Winter I period, lasting from January 1 through April 30 and allocated 45.11% of the annual quota; a Summer period, lasting from May 1 through October 31 and allocated 38.95% of the annual quota; and a Winter II quota period, lasting from November 1 through December 31 and allocated 15.94% of the annual commercial quota (Table 1).

The Summer quota period allocation is further divided into state shares. The state shares have been modified since they were first implemented. The current state shares are shown in Table 2. State shares were removed from the Council's FMP but are managed by the Commission through Addendum V (ASMFC 2002).

Commercial landings data from 1983 through 1992 were used to define the dates and allocations for the quota periods, including the state allocations for the Summer period. These years were chosen because they were thought to best represent historical participation in the fishery and included years when scup were abundant (though they have become far more abundant since then) and available to both northern and southern states (MAFMC 1996). There was some concern that these data underestimated harvests from state waters with some gear types, especially in Massachusetts. To address this concern, the state summer shares were modified in 2002 through Addendum V to the Commission's FMP (ASMFC 2002).

The seasonal possession limits have been modified several times since implementation. Current management measures include a 50,000 pound possession limit during Winter I. If 80% of the Winter I quota is harvested, the possession limit drops to 1,000 pounds for the remainder of the Winter I period. The initial Winter II possession limit is 12,000 pounds. If the Winter I quota is not fully harvested, unused quota may rollover to the Winter II period. If this occurs, the Winter II possession limit may increase up to a maximum of 18,000 pounds. There are no Federal waters possession limits during the Summer period; however, various state-specific possession limits are enforced in state waters. These possession limits are much lower than those in Winter I and Winter II (Table 3).

The Federal commercial scup fishery is closed coastwide when the allocation for a given quota period is reached. Any overages during a given quota period are subtracted from that period's allocation for the following year. If the Summer period quota is exceeded, overages from a given state during the Summer period are subtracted by the Commission from the state's Summer period share in a future year. If an individual state exceeds its Summer quota, but the overall Summer quota is not exceeded, deductions are not applied.

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Although the dates of the quota periods have not been modified since their initial implementation, Addendum X to the FMP, implemented in 2003, allows landings during April 15-30 by state-only permit holders to be counted towards that state's Summer period allocation in years when the Winter I fishery closes before April 15. Under this provision, states must request the date of Summer period change for state permit holders and notify NOAA Fisheries that landings by state-permit holders apply to the Summer period quota (ASMFC 2003).

2.3 Description of the Fishery

Scup are highly sought after by commercial and recreational fishermen throughout Southern New England and the Mid-Atlantic. Scup support commercial fisheries from Massachusetts to North Carolina. Commercial landings peaked in 1960 at 48.9 million pounds, and then ranged between 11.02 and 22.04 million pounds until the late 1980s. From the 1987-1996, commercial landings averaged 10.8 million pounds, and then declined to an average of 8.8 million pounds from 1997-2014. In 2015 commercial landings were 15.86 million pounds, about 75% of the commercial quota. Since 1979, commercial landings have largely come from Rhode Island (38%), New Jersey (26%), and New York (16%).

Analysis of the potential impacts of the changes to the quota period dates requested by advisors is presented in this section. The figures and tables at the end of this document show scup landings by month (Figure 1, Table 4), scup prices by month (Figure 2, Table 5), and number and size of vessels landing scup by month (Figure 3, Table 6, Figure 4), as well as the importance of each month to scup landings in each state (Table 7).

Although October is within the Summer quota period, it has had similar average values to the Winter II quota period in terms of scup landings (Figure 1, Table 4) and number of vessels landing scup (Figure 3, Table 6). The size distribution of vessels which landed scup in October was in between that of September (Summer quota period) and November (Winter II quota period; Figure 4) during 2011-2015. The month of May, which is currently in the Summer quota period, had values for scup landings which were in between the months of April (Winter I quota period) and June (Summer quota period; Figure 1, Table 4). The number and size of vessels landing scup in May was similar to the number and size of vessels landing scup in June (Figures 3 and 4, Table 4). In general, October appears to be more similar to the Winter II period than the Summer period in terms of landings and number of vessels. May appears to be more similar to the Summer period than the Winter I period in terms of the number and size of vessels landing scup per month, but in between Winter I and Summer in terms of scup landings.

If each month contributed equally to scup landings, 8% of annual landings would occur in each month. The month of October contributed to more than 8% of annual scup landings in Rhode Island. The month of May contributed to more than 8% of annual scup landings in the states of Massachusetts, Rhode Island, and New York (Table 7).

At their July 2016 meeting, the Monitoring Committee discussed ideas for analyzing the impacts of modifying the scup quota period dates. Monitoring Committee members noted if October were moved to the Winter II period, this would allow a higher commercial possession limit (on

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the order of 12,000 pounds) and if scup are close inshore during that time of year, this could potentially impact recreational fisheries which mostly operate in state waters. Data from the Marine Recreational Information Program (MRIP) includes recreational catches and landings by two-month periods known as waves. From a coast-wide perspective, waves 3 (May-June), 4 (July-August), and 5 (September-October) each contributed about one third of annual scup landings from 2013 through 2015. Wave 3 dominated the scup landings (i.e. greater than 50% of the annual landings) in Massachusetts. Wave 5 dominated the scup landings (i.e. greater than 50% of annual landings) in New Jersey and Virginia and was also important (i.e. greater than 40% of annual landings) for Connecticut and New York (Table 8).

The Northeast Fisheries Science Center (NEFSC) fall bottom trawl survey and the Northeast Area Assessment and Monitoring Program (NEAMAP trawl survey) suggest commercial-sized scup are available in both state and Federal waters during October (Figures 5-9). However, the Rhode Island Department of Environmental Management (RI DEM) trawl survey, the University of Rhode Island Graduate School of Oceanography (URI GSO) Narragansett Bay trawl survey, and the state of New Jersey Ocean Trawl Survey suggest scup are present in state and Federal waters during October, but most of those scup are below the commercial size (Figures 10-14). The NEAMAP, RI DEM, URI GSO Narragansett Bay, and Massachusetts Department of Marine Fisheries (MA DMF) trawl surveys suggest commercial-sized scup are present in state and Federal waters during May 1-15 (Figures 10-14).

2.4 Life History

Scup are a schooling, demersal (i.e., bottom-dwelling) species with a geographic range as far north as the Bay of Fundy in southern Nova Scotia and as far south as Florida. They are found in a variety of habitats in the Mid-Atlantic. Essential fish habitat (EFH) for scup includes demersal waters, areas with sandy or muddy bottoms, mussel beds, and sea grass beds from the Gulf of Maine through Cape Hatteras, North Carolina. Water temperature is a main factor influencing the range of scup, as they prefer temperatures greater than 45°F and are most frequently in waters between 55–77°F.

Scup undertake extensive seasonal migrations between coastal and offshore waters. They are mostly found in estuaries and coastal waters from southern New England to the Chesapeake Bay during the spring and summer, within depths up to 120 feet (NEFSC 2015b). In the fall and winter, they move offshore and to the south, to outer continental shelf waters south of New Jersey at depths of 250–610 feet. Juveniles follow adults to wintering areas, although some remain in larger and deeper estuaries during warm winters. Scup migrate to summering grounds in spring when water temperatures start to rise about 45°F.

Scup spawn once annually from May through August and peaking in June (ASMFC 2015), mostly off southern New England from Massachusetts Bay south to the New York Bight. Spawning begins during the inshore migration when water temperatures are above 50°F, with the largest fish arriving to the spawning grounds first, followed by progressively smaller fish. Scup usually spawn over weedy or sandy areas. In some locations, such as eastern Long Island bays and Raritan Bay, spawning mostly occurs in May and June (Steimle et al. 1999).

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Scup eggs and larvae are pelagic and are found in coastal waters in and near southern New England during spring and summer. As larvae mature, they settle to the seafloor and develop into juveniles. About 50% of scup (both male and female) are sexually mature at two years of age and 6–7 inches total length. Nearly all scup of age 3 and older are mature. They reach a maximum age of at least 14 years; however, very few scup older than age 7 are caught in the Mid-Atlantic (DPSWG 2009, NEFSC 2015b).

Adult scup are benthic feeders. They consume a variety of prey, including small crustaceans, polychaetes, mollusks, small squid, vegetable detritus, insect larvae, hydroids, sand dollars, and small fish. Scup are prey for numerous predators, including multiple shark species, skates, silver hake, bluefish, summer flounder, black sea bass, weakfish, lizardfish, king mackerel, and monkfish (Steimle et al. 1999).

2.5 Status of the Stock

The most recent peer-reviewed benchmark assessment for scup (SAW/SARC 60, NEFSC 2015) was completed in May 2015. The assessment utilizes an age-structured assessment model called ASAP. Results of the assessment indicate the scup stock was not overfished or experiencing overfishing was occurring in 2014 relative to the updated biological reference points established in the 2015 SAW 60 assessment. The fishing mortality rate was estimated to be 0.127 in 2014, below the threshold fishing mortality reference point $F_{MSY} = 0.22$. Spawning stock biomass (SSB) was estimated to be 403.6 million pounds (182,915 mt) in 2014, about two times the biomass target $SSB_{MSY} = 192.47$ million pounds (87,302 mt). The 2014 year class is estimated to be above average at 112 million fish at age 0.

In 2016, a data update was completed with information on scup fishery catch, landings, and discards, as well as NEFSC and state survey catches through 2015 indicates that scup biomass continues to be high, relative exploitation ratios remain low, and the 2015 year class appears to be large (NEFSC 2016a). Scup were under a formal rebuilding plan from 2005 through 2009. NMFS declared the scup stock rebuilt in 2009 based on the findings of the Data Poor Stocks Working Group (DPSWG 2009).

3.0 Proposed Management Program

The following alternatives were developed based recommendations from the Advisory Panel and on analysis referenced in section 2.3 'Description of the fishery'. If selected, the management program would be implemented as soon as possible, possibly adjusting the 2017 summer quota period end date and winter II quota period start date.

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Alternative 1: No action/status quo: the start and end dates of the quota periods remain the same.

- Winter I: January 1 – April 30 (120 days)
- Summer: May 1 – October 31 (184 days)
- Winter II: November 1 – December 31 (61 days)

Alternative 2: Move October to the Winter II period. Under this alternative the Summer period would be shortened by 31 days and the Winter II period would be extended by 31 days.

- Winter I: January 1 – April 30 (120 days)
- Summer: May 1 – September 30 (153 days)
- Winter II: October 1 – December 31 (92 days)

Alternative 3: Move October to the Winter II period and move the first two weeks of May to the Summer period. Under this alternative the Winter I period would be extended by 15 days, the Summer period would be shortened by 46 days and the Winter II period would be extended by 31 days.

- Winter I: January 1 – May 15 (135 days)
- Summer: May 16 – September 30 (138 days)
- Winter II: October 1 – December 31 (92 days)

Alternative 3.A: Modify the dates of the quota periods as described under alternative 3 and leave the Winter I and Summer quota counting procedures unchanged

Addendum X (2003) states on pg.4: “Under this addendum, this alternative requires a slight modification to the current Federal regulations. It recognizes that the states could allow for landings of scup by state permit holders that would apply to the Summer period quota beginning on April 15th. Specifically, in the event of a closure [Winter I period] prior to April 15th, state permit holders could land and sell scup caught exclusively in state waters to state and Federally permitted dealers after April 15th and prior to the Federal opening of the Summer period on May 1. Landings by state permitted fishermen after April 15th and prior to May 1 will apply to the Summer period quota allocated to the state where the scup were landed. States have to request that the date of the Summer period change for state permit holders and are required to notify NMFS that these landings will apply to the Summer period quota.”

Please note: federally-permitted vessels cannot land scup when Winter quota periods are closed or prior to the official start of the Summer period quota. Under the following sub-alternatives, federal permitted vessels may not be able to land scup when state permitted fishermen can.

Under alternative 3.A, the Summer quota period would start on May 16 (rather than on May 1, as under the no action alternative) and the regulations from Addendum X would remain unchanged. If the Winter I period closes prior to April 15, state permit holders would be able to

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land scup in state waters from April 15-30 and those landings would count towards the state's Summer quota. The commercial fishery would then close from May 1-May 15 and would resume again on May 16 (the new start of the Summer Quota period)

Alternative 3.B: Modify the dates of the quota periods as described under alternative 3 and modify the end date of the Winter I and Summer quota counting procedures

Under alternative 3.B, when the Winter I period closes prior to April 15, state-only permitted fishermen would be able to land scup in state waters from April 15- May 15. State permit holders could land and sell scup caught exclusively in state waters to state and Federally permitted dealers after April 15th. Landings by state permitted fishermen after April 15th will apply to the Summer period quota allocated to the state where the scup were landed. States will notify NOAA Fisheries of the date of the Summer period change for state permit holders and their landings will apply to the Summer period quota.

Effectively, under sub-alternative 3.B, when the Winter I period closes prior to April 15, the Summer period quota could start on April 15 for state-permit holders.

Alternative 3.C: Modify the dates of the quota periods as described under alternative 3 and modify the start and end dates of the Winter I and Summer quota counting procedures

Under alternative 3.C, when the Winter I period closes prior to April 30, state only permitted fishermen would be able to land scup in state waters from May 1 –May 15. **Note:** if the winter period closes prior to April 30th, the commercial fishery will remain closed until the end of April (April 30). State permit holders could land and sell scup caught exclusively in state waters to state and Federally permitted dealers starting May 1st and prior to the Federal opening of the Summer period on May 16. Landings by state permitted fishermen starting May 1st will apply to the Summer period quota allocated to the state where the scup were landed. States will notify NOAA Fisheries of the date of the Summer period change for state permit holders and their landings will apply to the Summer period quota.

Effectively, under sub-alternative 3.C, when the Winter I period closes prior to April 30th, the Summer Quota period begins on May 1 for state-permit holders.

4.0 Compliance

Following the May 2017 Joint Board/Council Meeting, states will go through their regulatory process to promulgate changes to management in state waters that the Board approves; in turn, the Council will recommend to NOAA that the selected alternative be implemented through the federal rule making process. Once implemented, if quota period start and end dates are adjusted through the selected alternative, both federal and state permit holders will be notified.

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References

- ASMFC (Atlantic States Marine Fisheries Commission). 1996. Scup Fishery Management Plan and Addendum I for Scup. Available at: <http://www.asmfc.org/species/scup>
- ASMFC (Atlantic States Marine Fisheries Commission). 2002. Addendum V to the Scup Fishery Management Plan: Summer Period Commercial Scup Allocation. Available at: <http://www.asmfc.org/species/scup>
- ASMFC (Atlantic States Marine Fisheries Commission). 2003. Addendum X to the Scup Fishery Management Plan: Rollover Quota Strategy of Scup from Winter I to Winter II and Defining Summer Period Start Date. Available at: <http://www.asmfc.org/species/scup>
- ASMFC (Atlantic States Marine Fisheries Commission). 2015. Scup: Life History and Habitat Needs. Available at: <http://www.asmfc.org/uploads/file//568ee157Scup.pdf>
- DPSWG (Northeast Data Poor Stocks Working Group). 2009. The northeast data poor stocks working group report, part A: skate species complex, deep sea red crab, Atlantic wolffish, scup, and black sea bass. Northeast Fish Science Center Reference Document 09-02. Available at: <http://www.nefsc.noaa.gov/publications/crd/crd0902/>
- Hamer, P.E. 1979. Studies of the scup, *Stenotomus chrysops*, in the Middle Atlantic Bight. New Jersey Division of Fish, Game, and Shellfish Miscellaneous Report No. 18M.
- MAFMC (Mid-Atlantic Fishery Management Council). 1996. Regulatory Amendment to the Fishery Management Plan for the Summer Flounder and Scup Fishery. Available at: <http://www.mafmc.org/fisheries/fmp/sf-s-bsb>
- Morse, W. W. 1978. Biological and fisheries data on scup, *Stenotomus chrysops* (Linnaeus). Northeast Fisheries Science Center Sandy Hook Laboratory Technical Series Report No. 12. Available at: <http://nefsc.noaa.gov/publications/series/shlr/>
- NEFSC (Northeast Fisheries Science Center). 2015b. 60th Northeast Regional Stock Assessment Workshop (60th SAW) Assessment Report. U.S. Department of Commerce, Northeast Fisheries Science Center Reference Document 15-08. Available at: <http://www.nefsc.noaa.gov/saw/>
- NEFSC (Northeast Fisheries Science Center). 2016a. Scup Data Update for 2016. Available at: <http://www.mafmc.org/council-events/2016/ssc-3>.
- “Scup: General Fisheries Information”. Greater Atlantic Region, Sustainable Fisheries, NOAA Fisheries. <https://www.greateratlantic.fisheries.noaa.gov/sustainable/species/scup/index.html>. Accessed February 28, 2017.
- Steimle, F.W. and C. Zetlin. 2000. Reef habitats in the middle Atlantic bight: abundance, distribution, associated biological communities, and fishery resource use. *Marine Fisheries Review*. 62: 24-42.

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Tables and Figures

Table 1. Commercial scup quota period dates, percentage of annual quota allocated, and Federal waters possession limits.

| Quota Period | Dates | % of annual quota | Possession limit |
|--------------|--------------|-------------------|--|
| Winter I | Jan 1–Apr 30 | 45.11% | 50,000 pounds |
| Summer | May 1–Oct 31 | 38.95% | State-specific (Table 3) |
| Winter II | Nov 1–Dec 31 | 15.94% | 12,000-18,000 pounds depending on amount of unused quota from Winter I |

Table 2. State allocations of commercial scup quota for the Summer quota period.

| State | Share of summer quota |
|----------------|-----------------------|
| Maine | 0.1210% |
| New Hampshire | 0.0000% |
| Massachusetts | 21.5853% |
| Rhode Island | 56.1894% |
| Connecticut | 3.1537% |
| New York | 15.8232% |
| New Jersey | 2.9164% |
| Delaware | 0.0000% |
| Maryland | 0.0119% |
| Virginia | 0.1650% |
| North Carolina | 0.0249% |

Table 3. Commercial scup possession limits for trawl vessels in state waters during the Summer quota period (May 1 – October 31) in 2016.

| State | Dates | Possession limit |
|--------------------------|----------------------------------|-------------------------------|
| Maine | May 1 – Oct 31 | None |
| New Hampshire | May 1 – Oct 31 | None (allocated no quota) |
| Massachusetts | May 1 – Oct 31 | 800 lb |
| Rhode Island | May 1 – Oct 31 | 10,000 lb per vessel per week |
| Connecticut ^a | May 1 – July 2 | 1,500 lb |
| | July 3 – November 1 ^b | 750 lb |
| New York | May 1 – Oct 31 | 800 lb |
| New Jersey | May 1 – Oct 31 | 5,000 lb |
| Delaware | May 1 – Oct 31 | None (allocated no quota) |
| Maryland | May 1 – Oct 31 | None |
| Virginia | May 1 – Oct 31 | None |
| North Carolina | May 1 – Oct 31 | None |

^aAdjusted periodically to maintain consistent weekly landings rate, prevent in-season closure, and take 100% of summer period quota allocated to Connecticut.

^bAs of August 26, 2016. Possession limit may be further adjusted prior to end of Summer quota period.

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Landings by Month

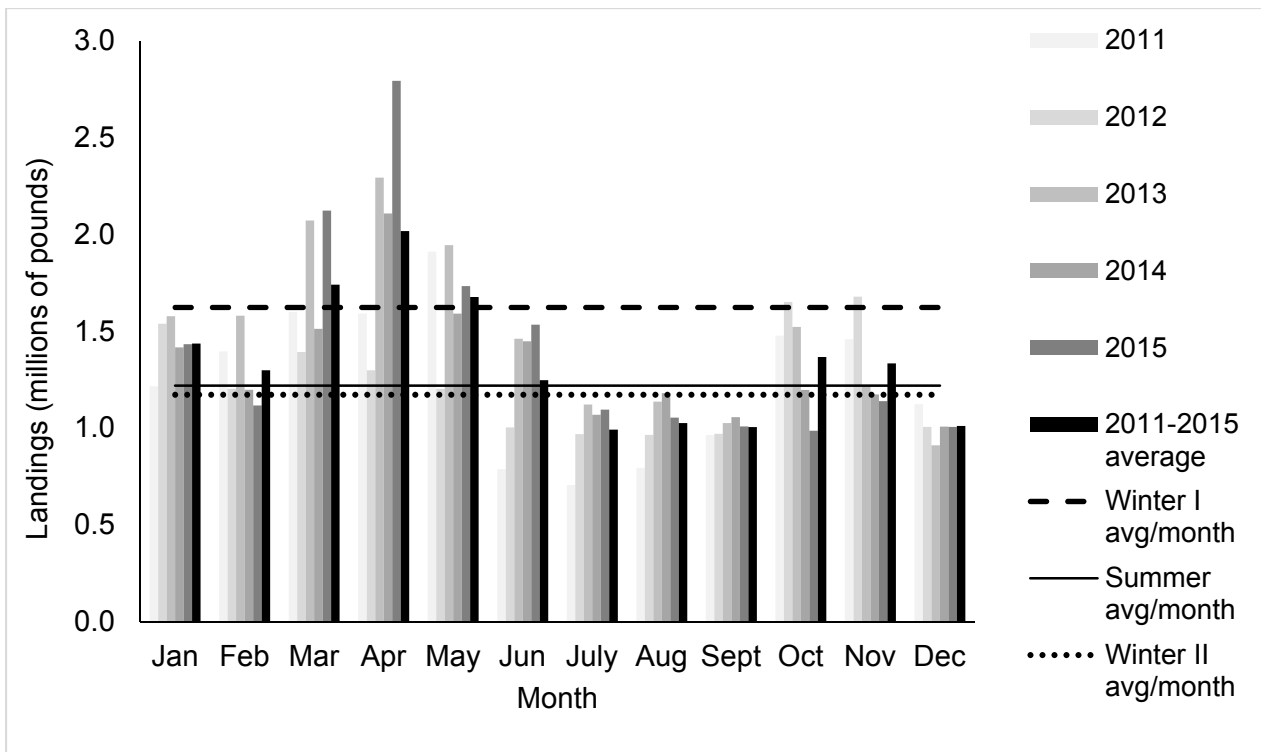


Figure 1. Commercial scup landings per month, 2011-2015 shown with average landings per month during the Winter I (January – April), Summer (May-October), and Winter II (November and December) quota periods.

Table 4. Commercial scup landings per month, 2011-2015 shown with average landings per month during the Winter I (January – April), Summer (May-October), and Winter II (November and December) quota periods.

| Year | Landings (millions of pounds) | | | | | | | | | | | |
|---------------------|-------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| | Jan | Feb | Mar | Apr | May | Jun | July | Aug | Sept | Oct | Nov | Dec |
| 2011 | 1.22 | 1.40 | 1.60 | 1.59 | 1.91 | 0.79 | 0.71 | 0.79 | 0.96 | 1.48 | 1.46 | 1.12 |
| 2012 | 1.54 | 1.20 | 1.39 | 1.30 | 1.20 | 1.00 | 0.97 | 0.96 | 0.97 | 1.65 | 1.68 | 1.01 |
| 2013 | 1.58 | 1.58 | 2.07 | 2.29 | 1.95 | 1.46 | 1.12 | 1.14 | 1.03 | 1.52 | 1.22 | 0.91 |
| 2014 | 1.42 | 1.20 | 1.51 | 2.11 | 1.59 | 1.45 | 1.07 | 1.18 | 1.06 | 1.20 | 1.17 | 1.01 |
| 2015 | 1.43 | 1.12 | 2.12 | 2.80 | 1.73 | 1.53 | 1.10 | 1.05 | 1.01 | 0.99 | 1.14 | 1.01 |
| Average | 1.44 | 1.30 | 1.74 | 2.02 | 1.68 | 1.25 | 0.99 | 1.03 | 1.01 | 1.37 | 1.34 | 1.01 |
| Winter I avg/month | 1.62 | | | | | | | | | | | |
| Summer avg/month | 1.22 | | | | | | | | | | | |
| Winter II avg/month | 1.17 | | | | | | | | | | | |

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Average Price by Month

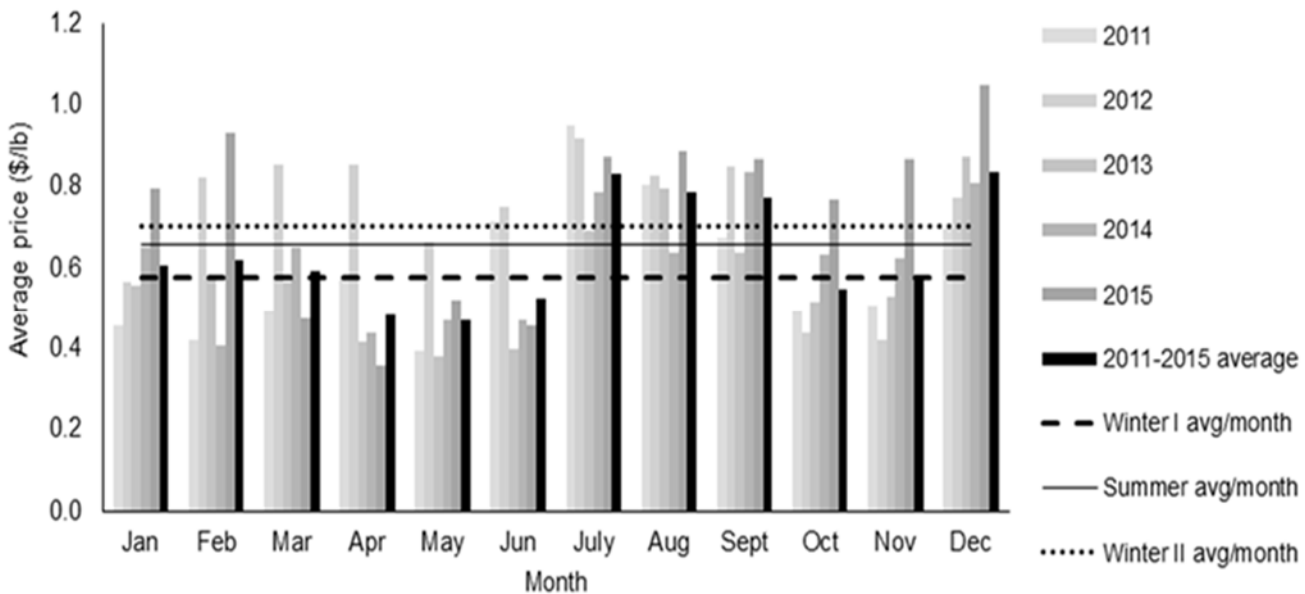


Figure 2: Average scup price per month, 2011-2015 shown with average price per month during the Winter I (January – April), Summer (May-October), and Winter II (November and December) quota periods.

Table 5: Average scup price (in dollars) per month, 2011-2015 shown with average price per month during the Winter I (January – April), Summer (May-October), and Winter II (November and December) quota periods. Values are not adjusted to account for inflation.

| Year | Average Price (Dollars) | | | | | | | | | | | |
|---------------------|-------------------------|------|------|-------|------|------|-------|------|------|------|------|------|
| | Jan | Feb | Mar | Apr | May | Jun | July | Aug | Sept | Oct | Nov | Dec |
| 2011 | 0.45 | 0.42 | 0.49 | 0.57 | 0.40 | 0.72 | 0.95 | 0.81 | 0.68 | 0.49 | 0.51 | 0.69 |
| 2012 | 0.56 | 0.82 | 0.85 | 0.85 | 0.67 | 0.75 | 0.92 | 0.83 | 0.85 | 0.44 | 0.42 | 0.77 |
| 2013 | 0.55 | 0.58 | 0.57 | 0.42 | 0.38 | 0.40 | 0.69 | 0.79 | 0.64 | 0.51 | 0.53 | 0.87 |
| 2014 | 0.65 | 0.41 | 0.65 | 0.44 | 0.47 | 0.47 | 0.79 | 0.64 | 0.84 | 0.63 | 0.62 | 0.81 |
| 2015 | 0.79 | 0.93 | 0.48 | 0.36 | 0.52 | 0.46 | 0.87 | 0.89 | 0.87 | 0.77 | 0.87 | 1.05 |
| Average | 0.61 | 0.62 | 0.59 | 0.649 | 0.47 | 0.53 | 0.983 | 0.79 | 0.77 | 0.55 | 0.57 | 0.83 |
| Winter I avg/month | 0.58 | | | | | | | | | | | |
| Summer avg/month | 0.66 | | | | | | | | | | | |
| Winter II avg/month | 0.70 | | | | | | | | | | | |

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Number of Vessels by Month

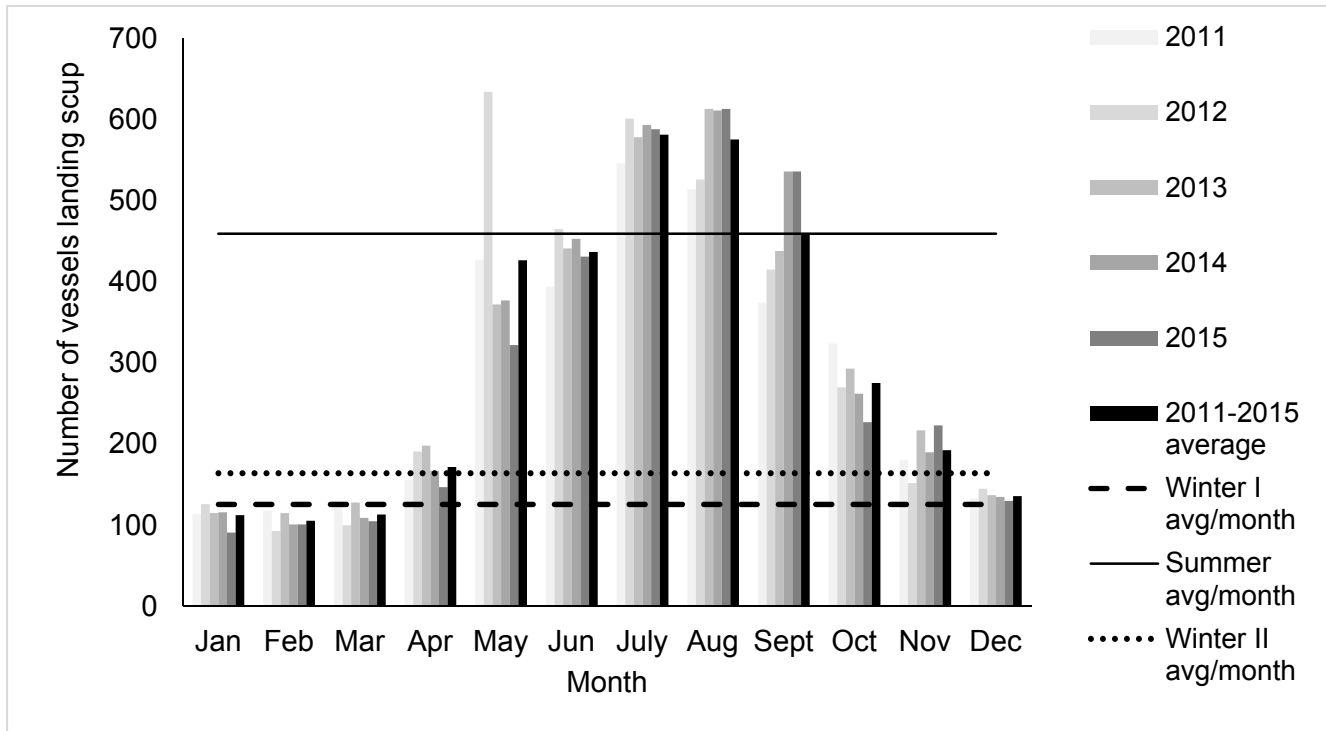


Figure 3: Number of commercial vessels which landed scup per month, 2011-2015 shown with average number of vessels per month during the Winter I (January – April), Summer (May-October), and Winter II (November and December) quota periods. Number of vessels was determined based on a combination of permit number and hull number, as shown in dealer data. Vessels with an unknown permit number and an unknown hull number are not included in this figure.

Table 6: Number of commercial vessels which landed scup per month, 2011-2015 shown with average number of vessels per month during the Winter I (January – April), Summer (May-October), and Winter II (November and December) quota periods. Number of vessels was determined based on a combination of permit number and hull number, as shown in dealer data. Vessels with an unknown permit number and an unknown hull number are not included in this table.

| Year | Number of Vessels | | | | | | | | | | | |
|---------------------|-------------------|-----|-----|-----|-----|-----|------|-----|------|-----|-----|-----|
| | Jan | Feb | Mar | Apr | May | Jun | July | Aug | Sept | Oct | Nov | Dec |
| 2011 | 114 | 118 | 124 | 156 | 427 | 394 | 546 | 514 | 372 | 324 | 180 | 133 |
| 2012 | 126 | 93 | 100 | 191 | 634 | 465 | 601 | 526 | 415 | 270 | 152 | 145 |
| 2013 | 115 | 115 | 128 | 198 | 372 | 441 | 578 | 613 | 438 | 293 | 217 | 137 |
| 2014 | 116 | 101 | 109 | 167 | 377 | 453 | 593 | 611 | 536 | 262 | 190 | 135 |
| 2015 | 91 | 101 | 105 | 147 | 322 | 431 | 588 | 613 | 536 | 227 | 223 | 130 |
| Average | 112 | 106 | 113 | 172 | 426 | 437 | 581 | 575 | 460 | 275 | 192 | 136 |
| Winter I avg/month | 126 | | | | | | | | | | | |
| Summer avg/month | 459 | | | | | | | | | | | |
| Winter II avg/month | 164 | | | | | | | | | | | |

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Landings by Month by State

Table 7. Percent of annual scup landings by month by state. "C" refers to confidential data representing fewer than three vessels and/or dealers.

| Month | MA | RI | CT | NY | NJ | DE | MD | VA | NC |
|-------|-----|-----|-----|-----|-----|----|-----|-----|-----|
| Jan | 13% | 3% | 15% | 9% | 19% | 0% | 22% | 11% | 11% |
| Feb | 5% | 4% | 14% | 6% | 19% | 0% | 25% | 9% | 75% |
| Mar | 3% | 7% | 12% | 10% | 20% | 0% | 30% | 39% | 1% |
| Apr | 3% | 7% | 17% | 16% | 23% | 0% | 21% | 24% | 7% |
| May | 16% | 15% | 3% | 10% | 1% | C | 0% | 1% | 0% |
| Jun | 6% | 10% | 6% | 11% | 1% | 0% | 0% | C | 0% |
| Jul | 23% | 7% | 5% | 4% | 0% | 0% | 0% | C | 0% |
| Aug | 21% | 9% | 4% | 3% | 0% | 0% | 0% | 0% | 0% |
| Sep | 6% | 11% | 3% | 3% | 1% | C | 0% | 0% | 0% |
| Oct | 2% | 14% | 6% | 7% | 2% | C | 0% | 1% | 0% |
| Nov | 2% | 9% | 7% | 12% | 6% | C | 0% | 6% | 0% |
| Dec | 2% | 5% | 7% | 9% | 8% | C | 2% | 8% | 6% |

Landings by Vessel Size

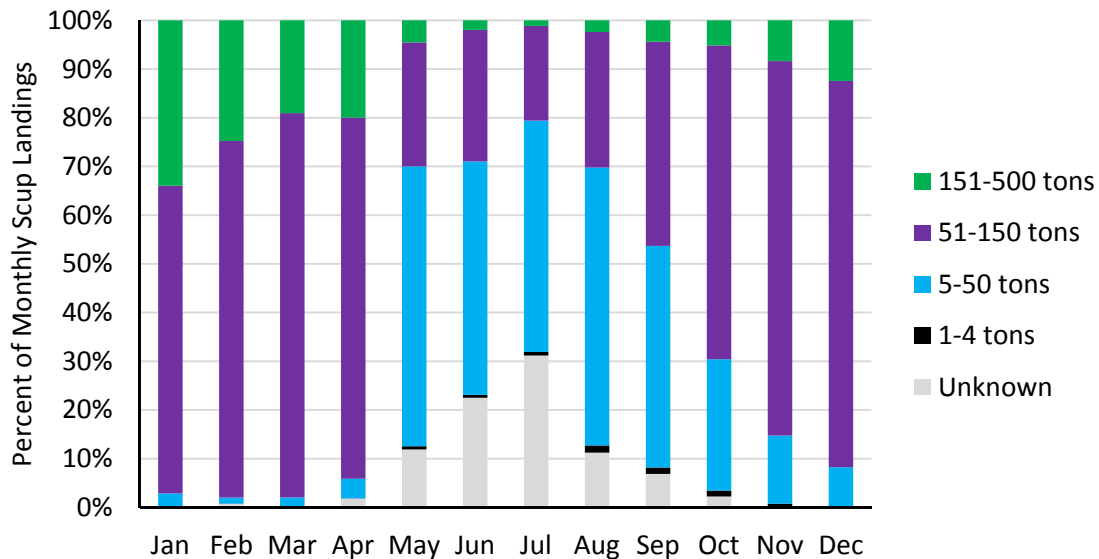


Figure 4. Average scup landings by month by vessel ton class, 2011-2015. Data for vessels greater than 500 tons are confidential and are not shown.

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Recreational Landings

Table 8. Percent of annual landings by wave and by state, 2013-2015. (Source: MRIP data, downloaded January 11, 2017).

| State | May/June | July/Aug | Sept/Oct | Nov/Dec |
|----------------|-----------------|-----------------|-----------------|----------------|
| MASSACHUSETTS | 73% | 15% | 11% | 0% |
| RHODE ISLAND | 16% | 44% | 40% | 0% |
| CONNECTICUT | 10% | 42% | 48% | 0% |
| NEW YORK | 9% | 46% | 44% | 2% |
| NEW JERSEY | 0% | 27% | 73% | 0% |
| DELAWARE | 7% | 4% | 0% | 89% |
| MARYLAND | 0% | 0% | 3% | 97% |
| VIRGINIA | 0% | 35% | 65% | 0% |
| NORTH CAROLINA | 40% | 16% | 39% | 5% |
| Total | 32% | 34% | 33% | 1% |

NEAMAP - Oct, 2011-2016 (kg scup/tow)

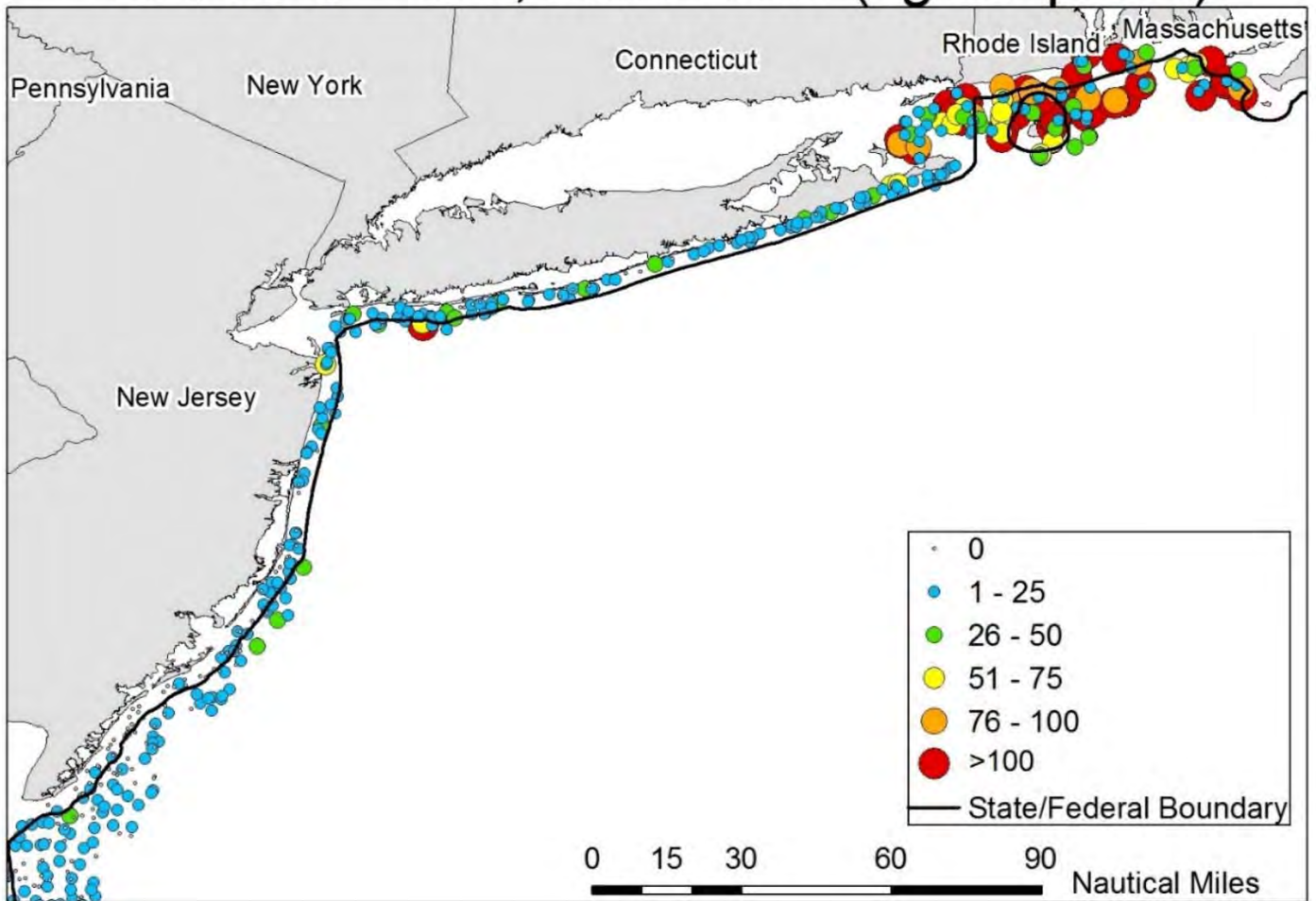


Figure 5. Scup catch per tow in October, 2011-2016, in the NEAMAP trawl survey off the states of Massachusetts through New Jersey.

NEAMAP - October, 2011-2016 (avg. weight)

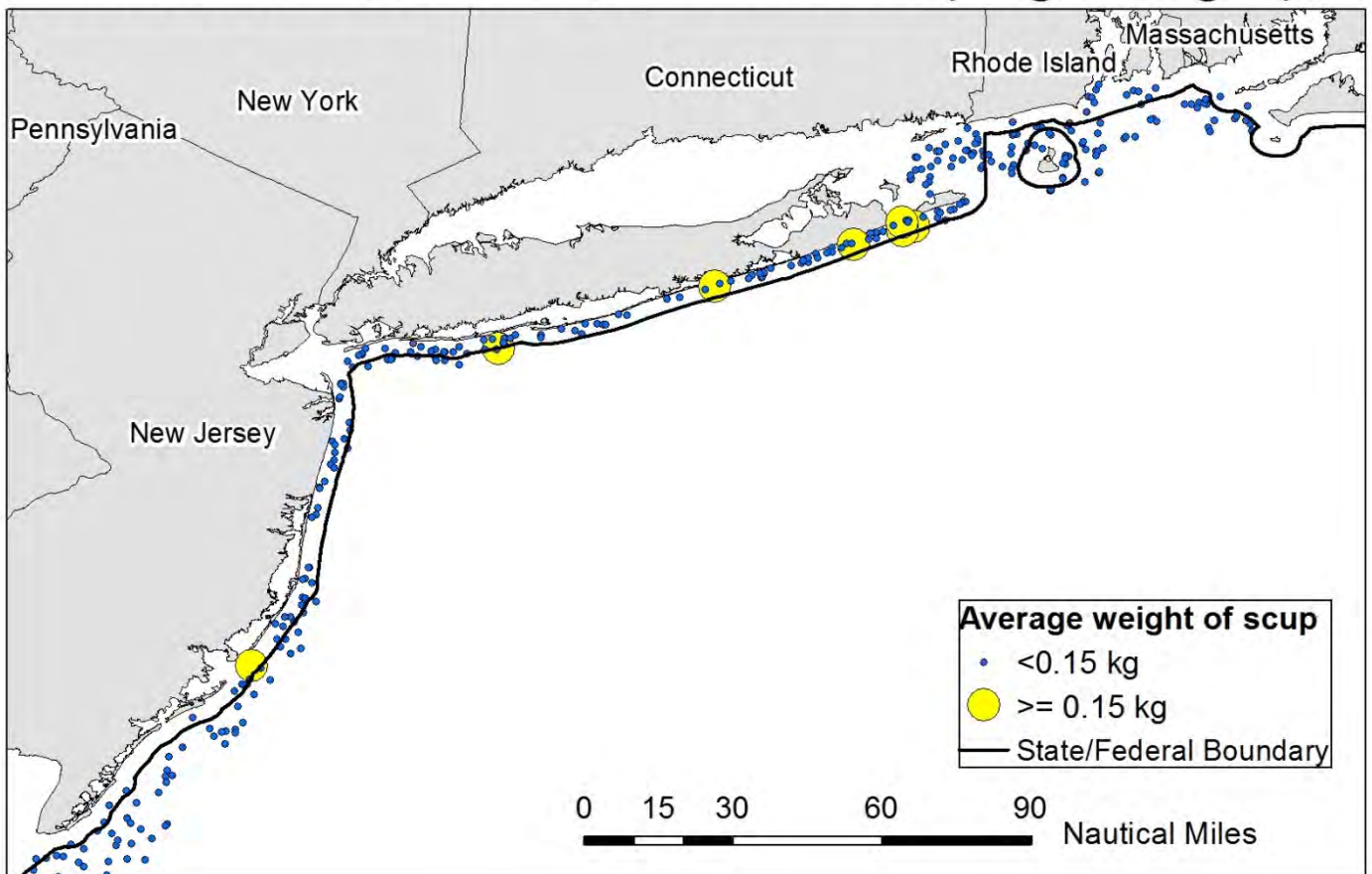


Figure 6. Average weight per scup in NEAMAP tows from Massachusetts through New Jersey, October, 2011-2016. Average weights are shown as those less than 0.15 kg and those greater than or equal to 0.15 kg, which is approximately the weight of a scup that has reached the commercial minimum size of nine inches total length (based on Morse 1978 and Hamer 1979).

NEAMAP Oct, 2011-2016 (kg scup/tow)

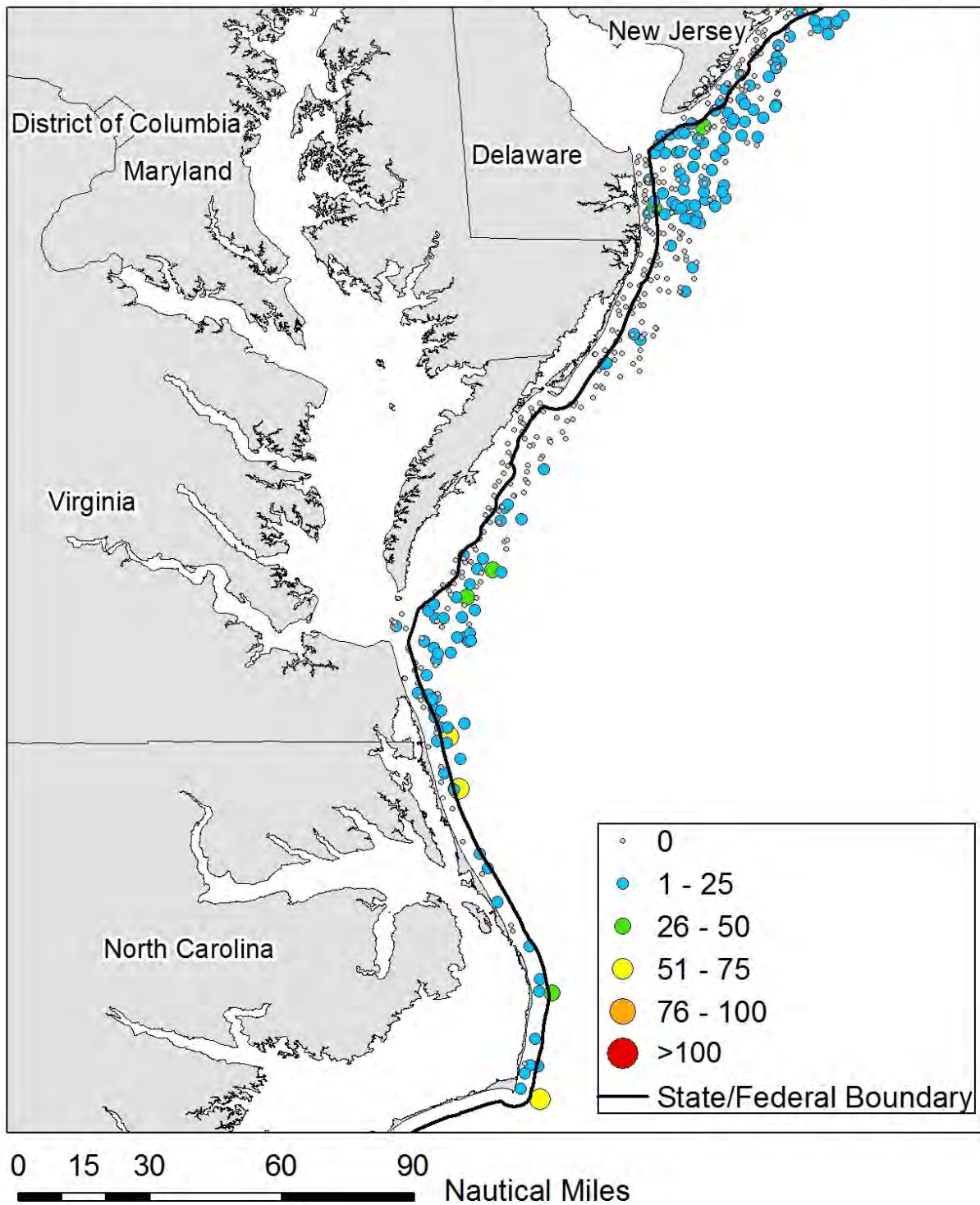


Figure 7. Scup catch per tow in October, 2011-2016, in the NEAMAP trawl survey off the states of Delaware through North Carolina.

NEFSC - Oct, 2011-2015 (kg scup/tow)

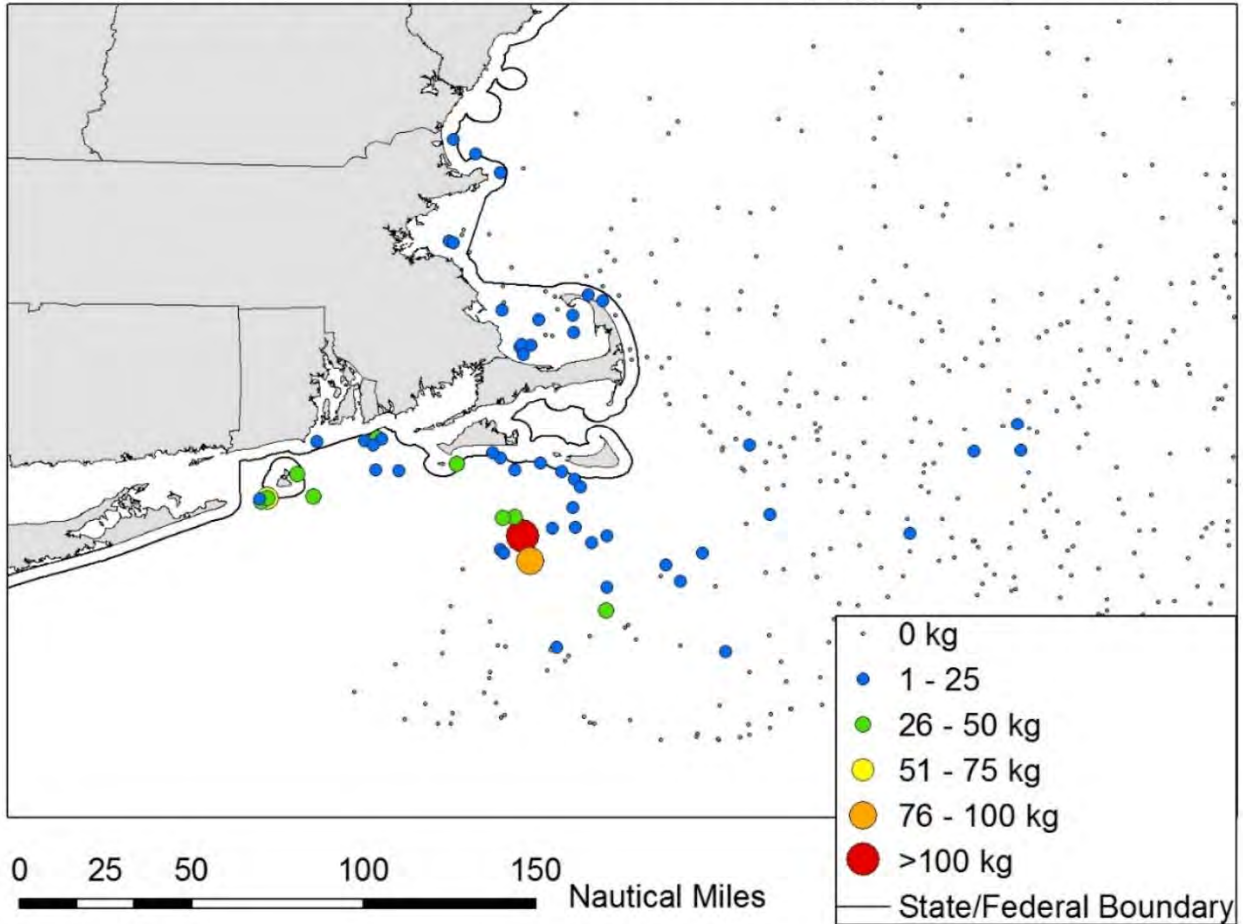


Figure 8. Scup catch per tow in October, 2011-2015, in the NEFSC fall bottom trawl survey.

NEFSC - October, 2011-2015 (avg. weight)

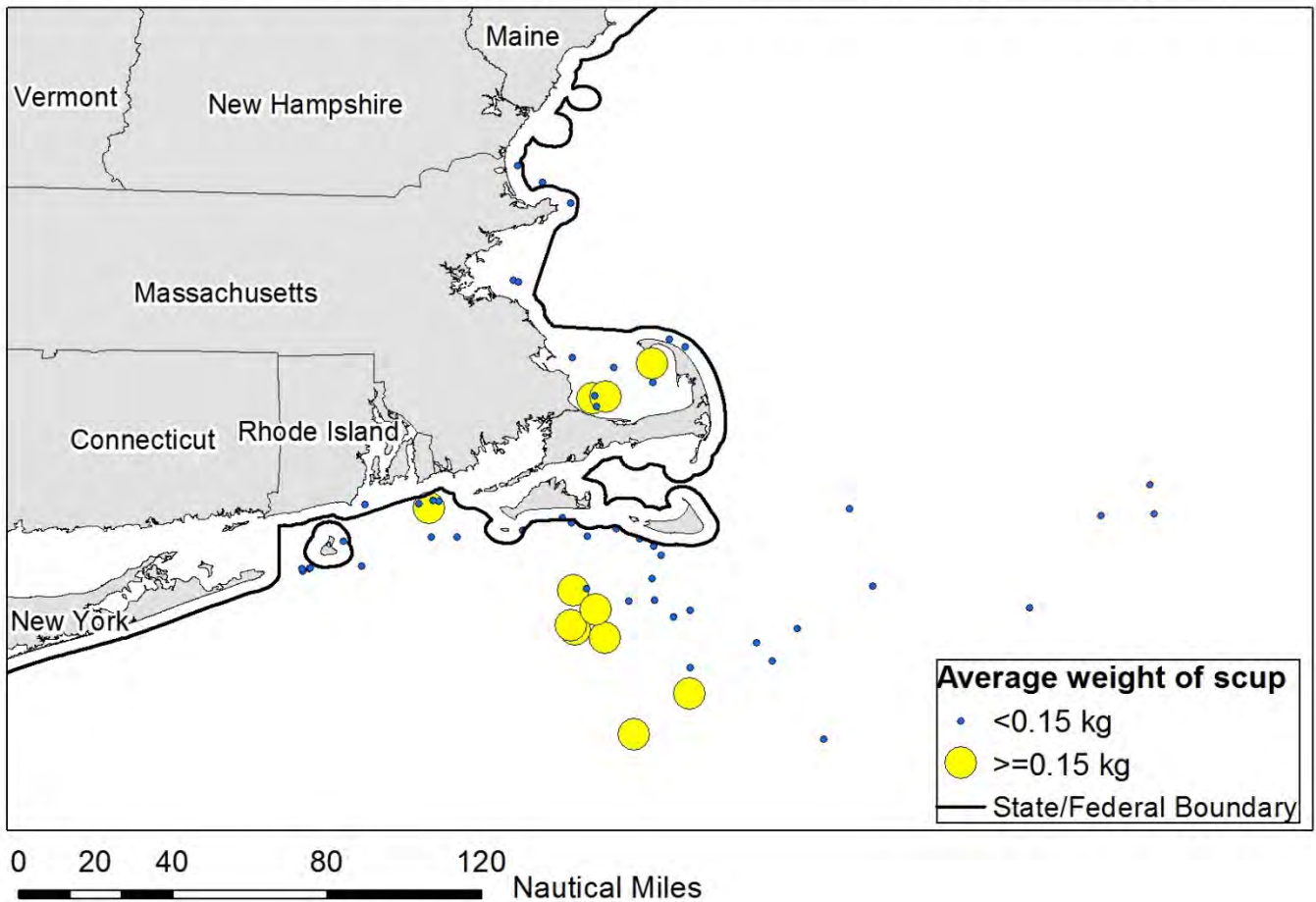


Figure 9. Average weight per scup in NEFSC fall bottom trawl survey tows, October, 2011-2015. Average weights are shown as those less than 0.15 kg and those greater than or equal to 0.15 kg, which is approximately the weight of a scup that has reached the commercial minimum size of nine inches total length (based on Morse 1978 and Hamer 1979).

RI DEM Coastal Fishery Resource Assessment Trawl Survey - October, 2011-2016 (kg scup/tow)

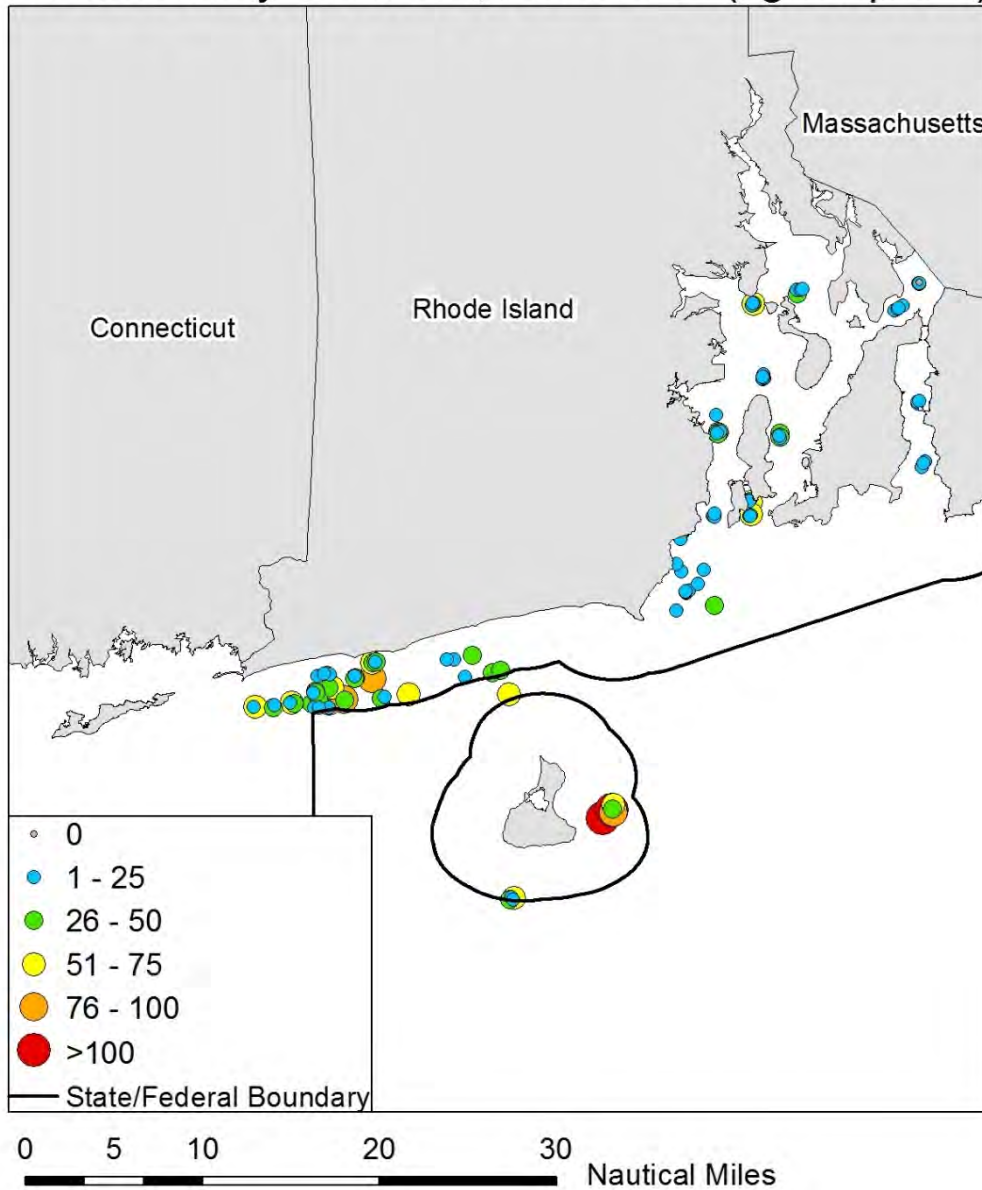


Figure 10. Scup catch per town in the RI DEM coastal fishery resource assessment trawl survey, during October, 2011-2016.

RI DEM Coastal Fishery Resource Assessment Trawl Survey - October, 2011-2016 (avg. weight)

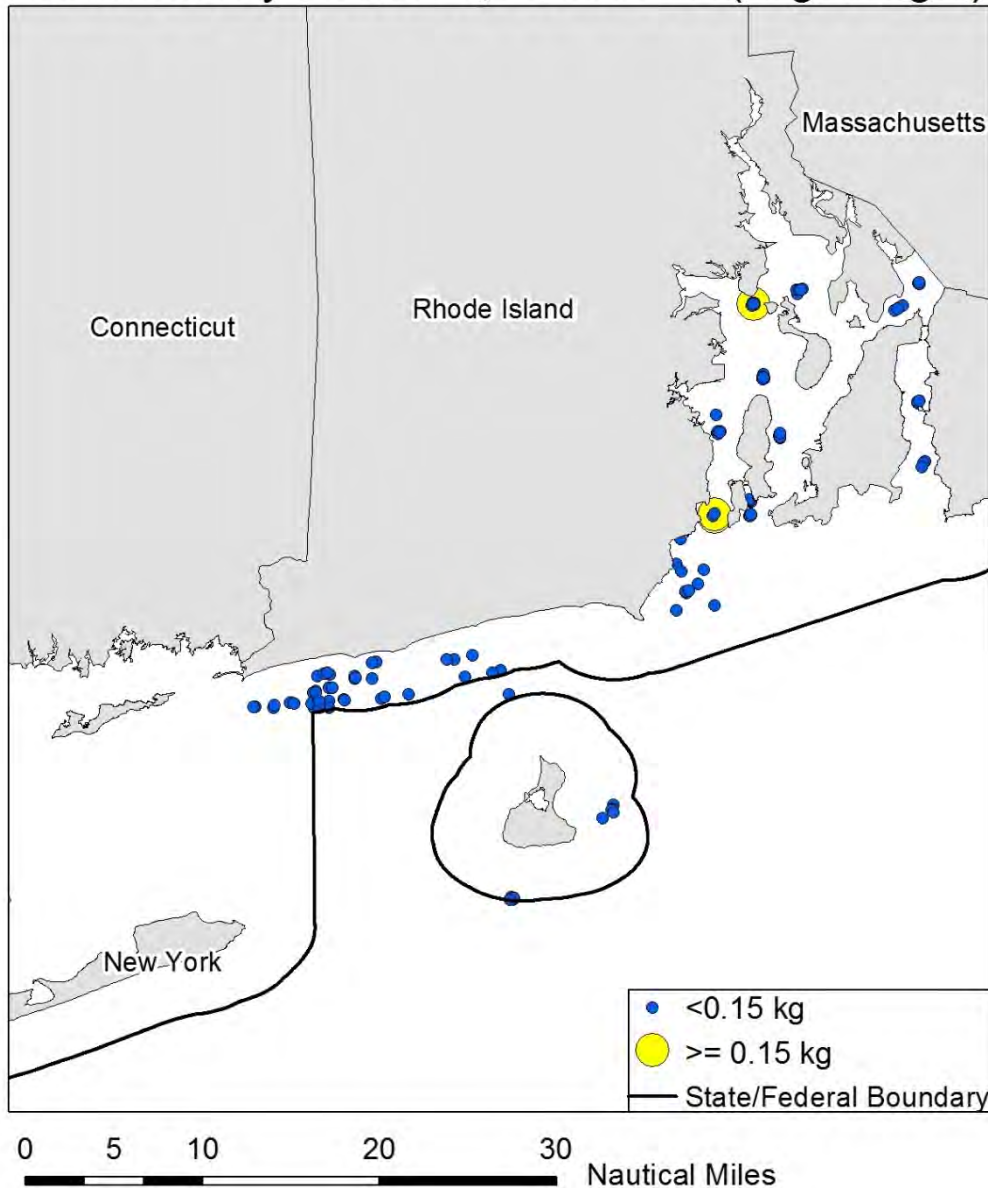


Figure 11. Average weight per scup in the RI DEM coastal fishery resource assessment trawl survey, October, 2011-2016. Average weights are shown as those less than 0.15 kg and those greater than or equal to 0.15 kg, which is approximately the weight of a scup that has reached the commercial minimum size of nine inches total length (based on Morse 1978 and Hamer 1979).

Draft Addendum for Public Comment

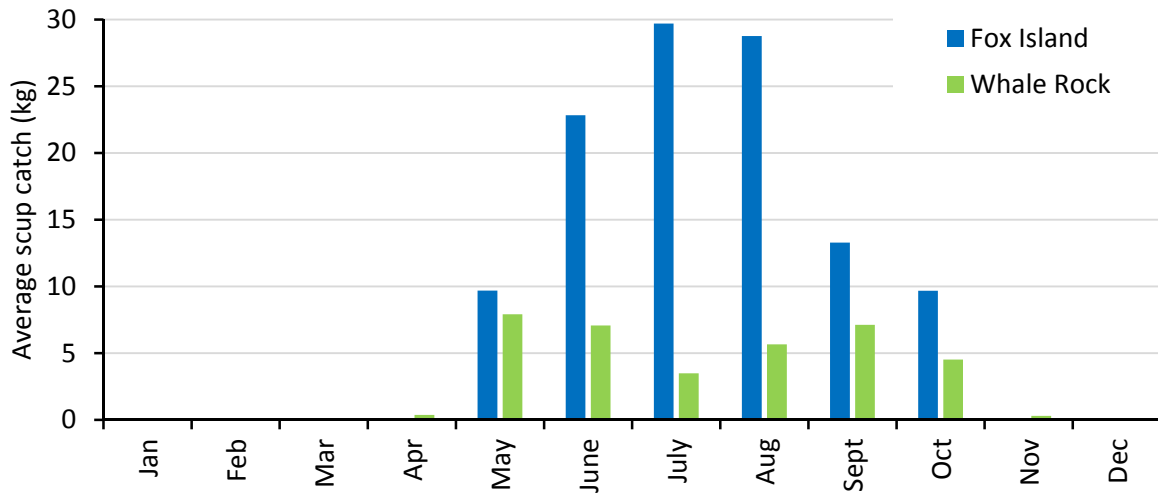


Figure 11. Average scup catch by month in the URI GSO Narragansett Bay fish trawl survey, 2011-2015.

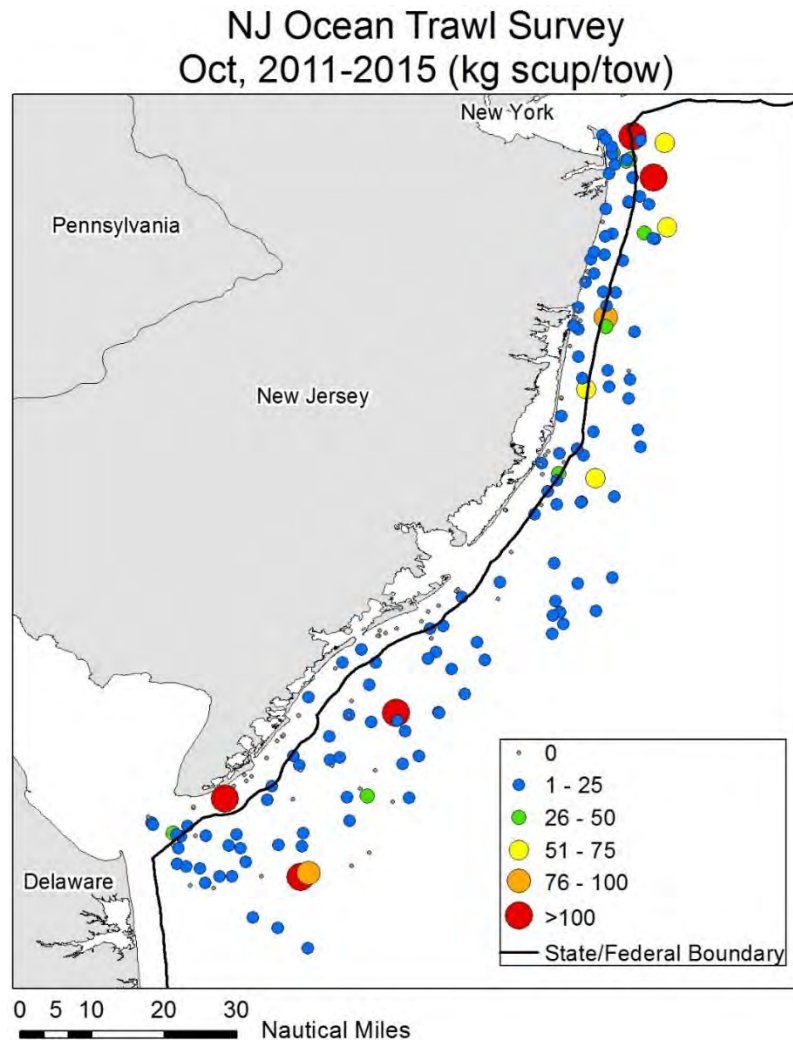


Figure 12. Scup catch per tow in October, 2011-2015, in the New Jersey Ocean Trawl Survey.

NJ Ocean Trawl Survey
Oct, 2011-2015 (avg. weight)

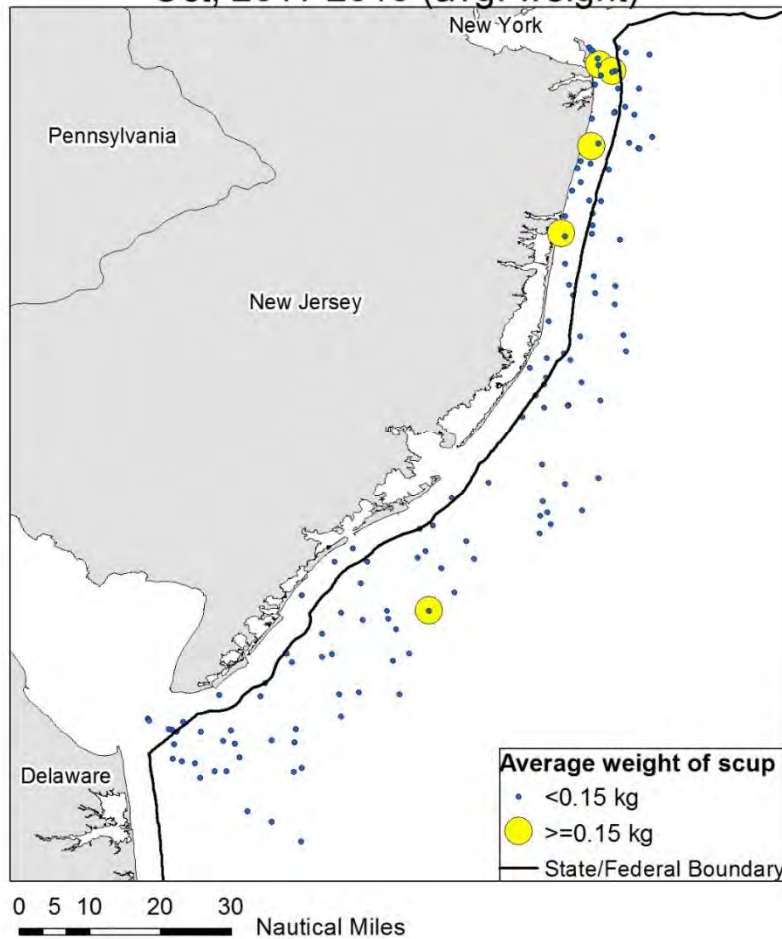


Figure 14. Average weight of scup caught in in the New Jersey Ocean Trawl Survey, October, 2011-2015. Average weights are shown as those less than 0.15 kg and those greater than or equal to 0.15 kg, which is approximately the weight of a scup that has reached the commercial minimum size of nine inches total length (based on Morse 1978 and Hamer 1979).

NEAMAP - May 1-15, 2011-2016 (kg scup/tow)

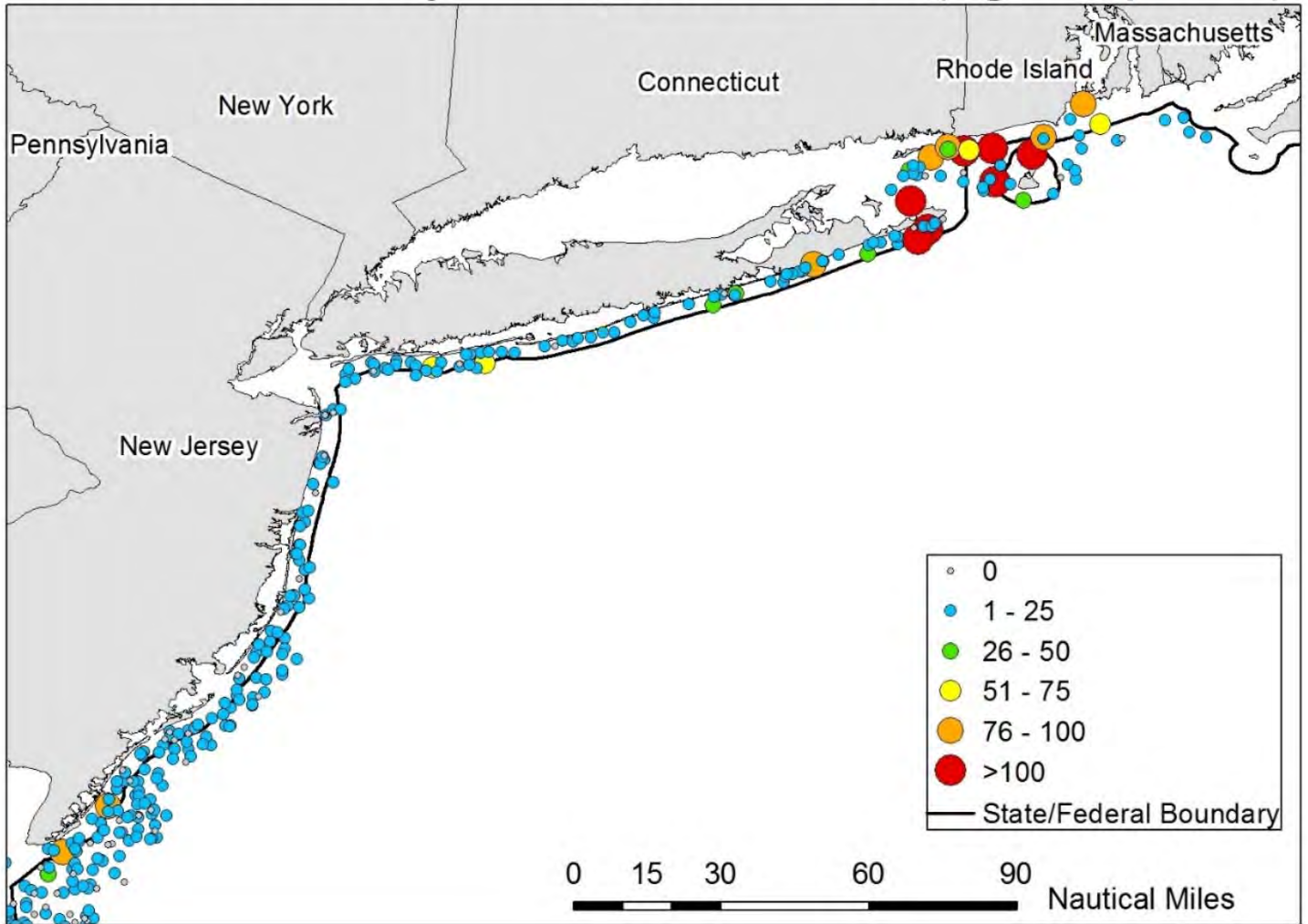


Figure 15. Scup catch per tow, May 1-15, 2011-2016, in the NEAMAP trawl survey off the states of Massachusetts through New Jersey.

NEAMAP - May 1-15, 2011-2016 (avg. weight)

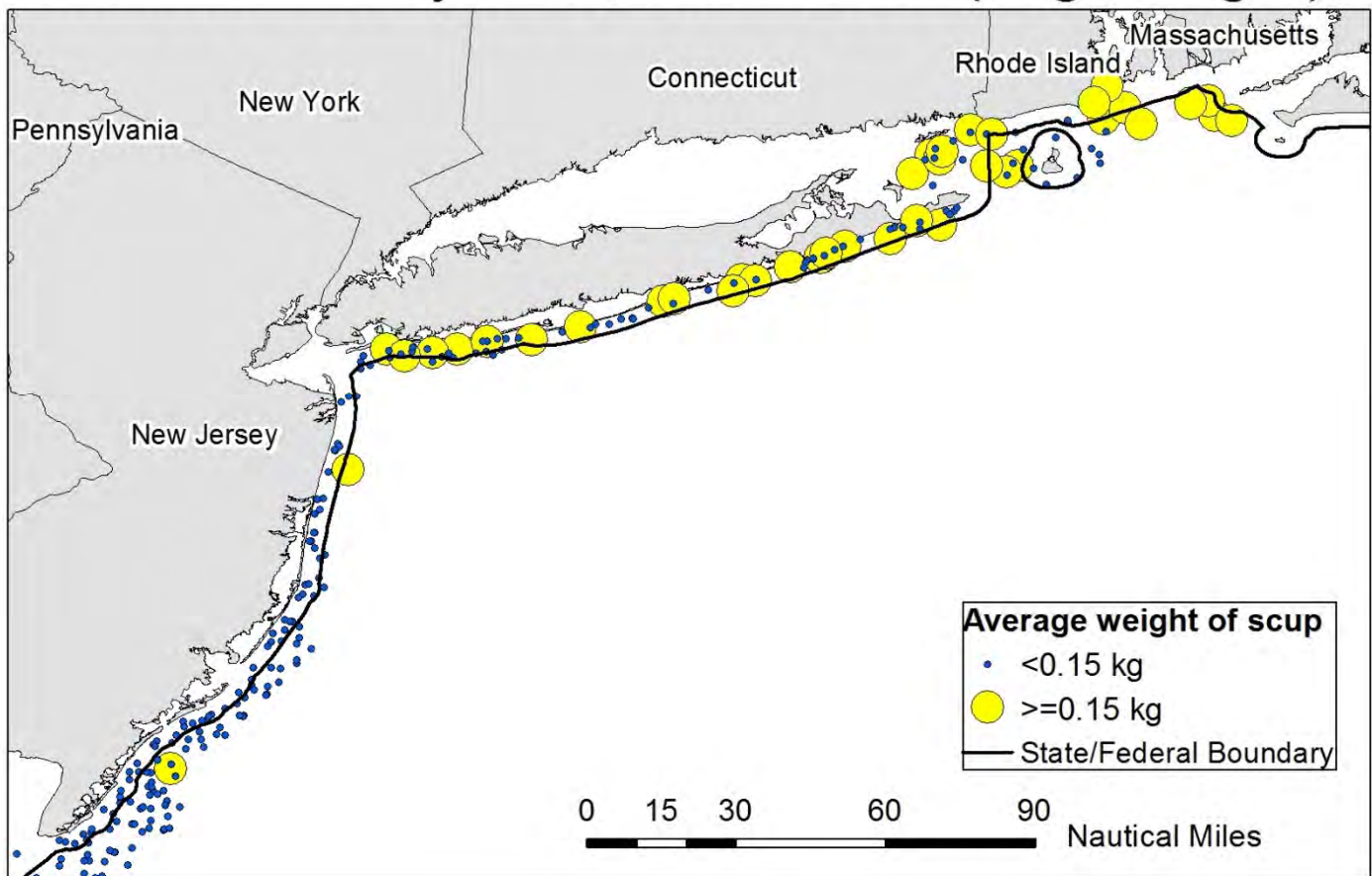


Figure 16. Average weight per scup in NEAMAP tows from Massachusetts through New Jersey, May 1-15, 2011-2016. Average weights are shown as those less than 0.15 kg and those greater than or equal to 0.15 kg, which is approximately the weight of a scup that has reached the commercial minimum size of nine inches total length (based on Morse 1978 and Hamer 1979).

NEAMAP May 1-15, 2011-2016 (kg scup/tow)

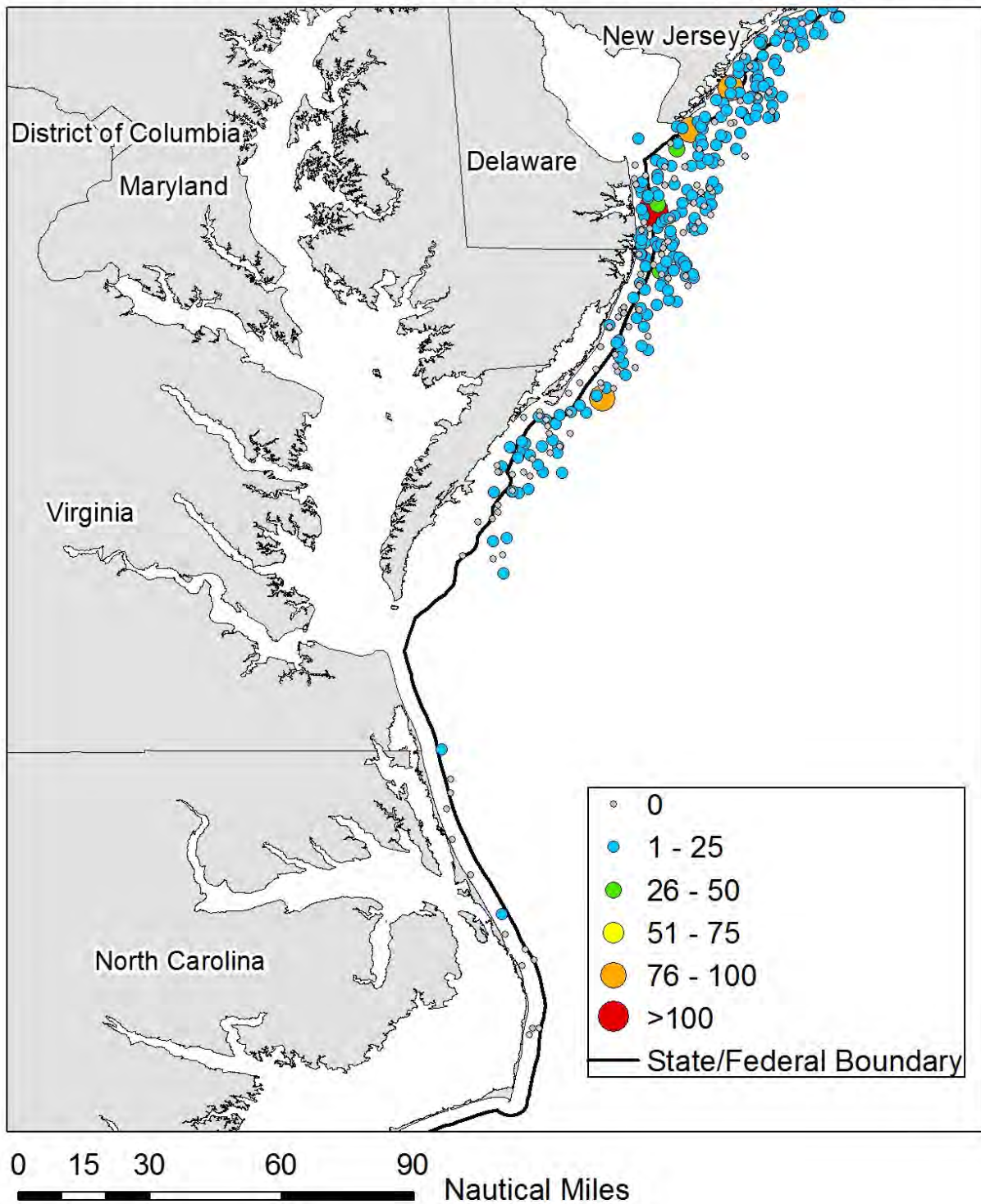


Figure 17. Scup catch per tow, May 1-15, 2011-2016, in the NEAMAP trawl survey off the states of Delaware through North Carolina.

MA DMF May 1-15, 2011-2016 (kg scup/tow)

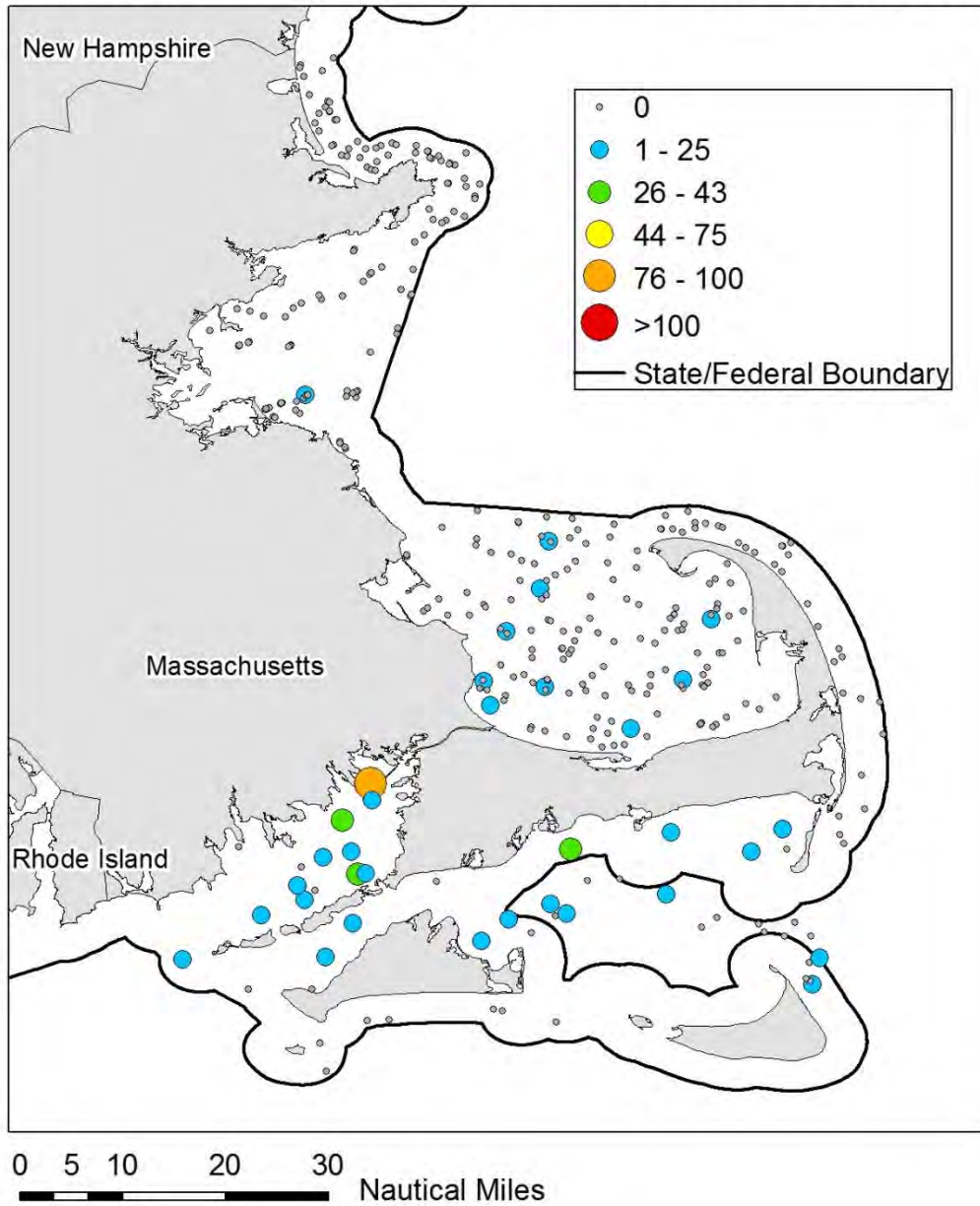


Figure 18. Scup catch per tow in the MA DMF spring trawl survey, May 1 – 15, 2011-2016.

MA DMF May 1-15, 2011-2016 (avg. weight)

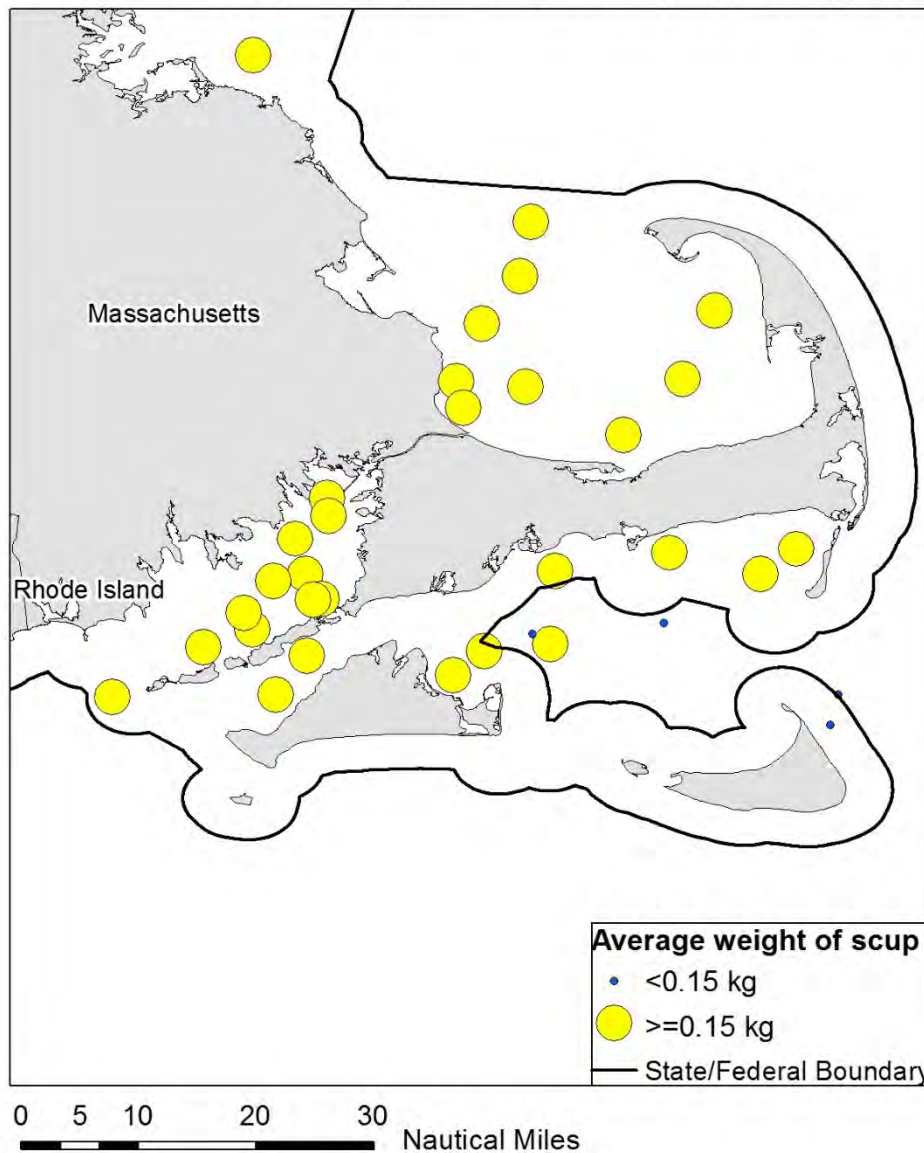


Figure 19. Average weight per scup in the MA DMF spring trawl survey, May 1 – 15, 2011-2016. Average weights are shown as those less than 0.15 kg and those greater than or equal to 0.15 kg, which is approximately the weight of a scup that has reached the commercial minimum size of nine inches total length (based on Morse 1978 and Hamer 1979).

RI DEM Coastal Fishery Resource Assessment Trawl Survey - May 1-15, 2011-2016 (kg scup/tow)

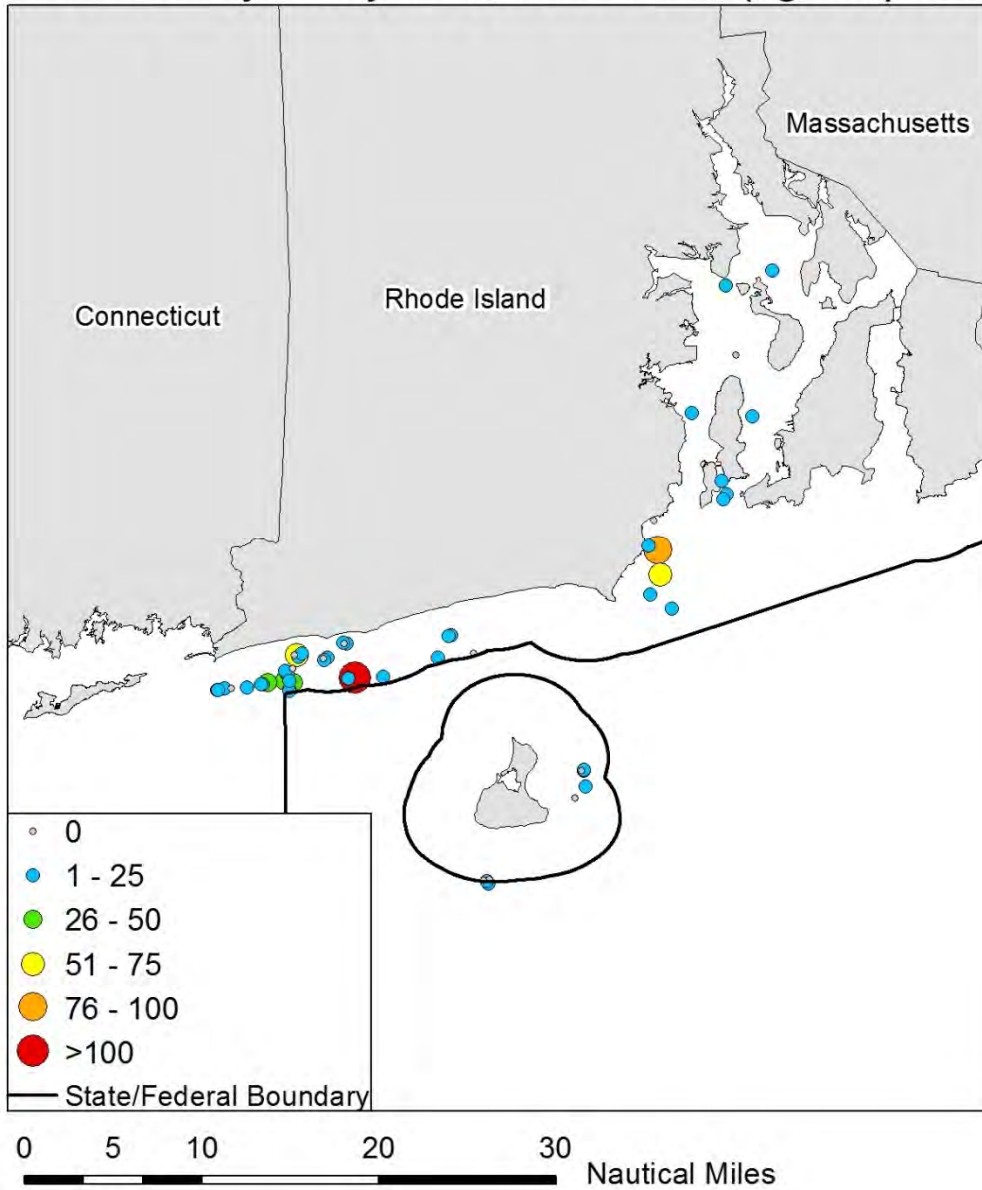


Figure 20. Scup catch per town in the RI DEM coastal fishery resource assessment trawl survey, May 1-15, 2011-2016.

RI DEM Coastal Fishery Resource Assessment Trawl Survey - May 1-15, 2011-2016 (avg. weight)

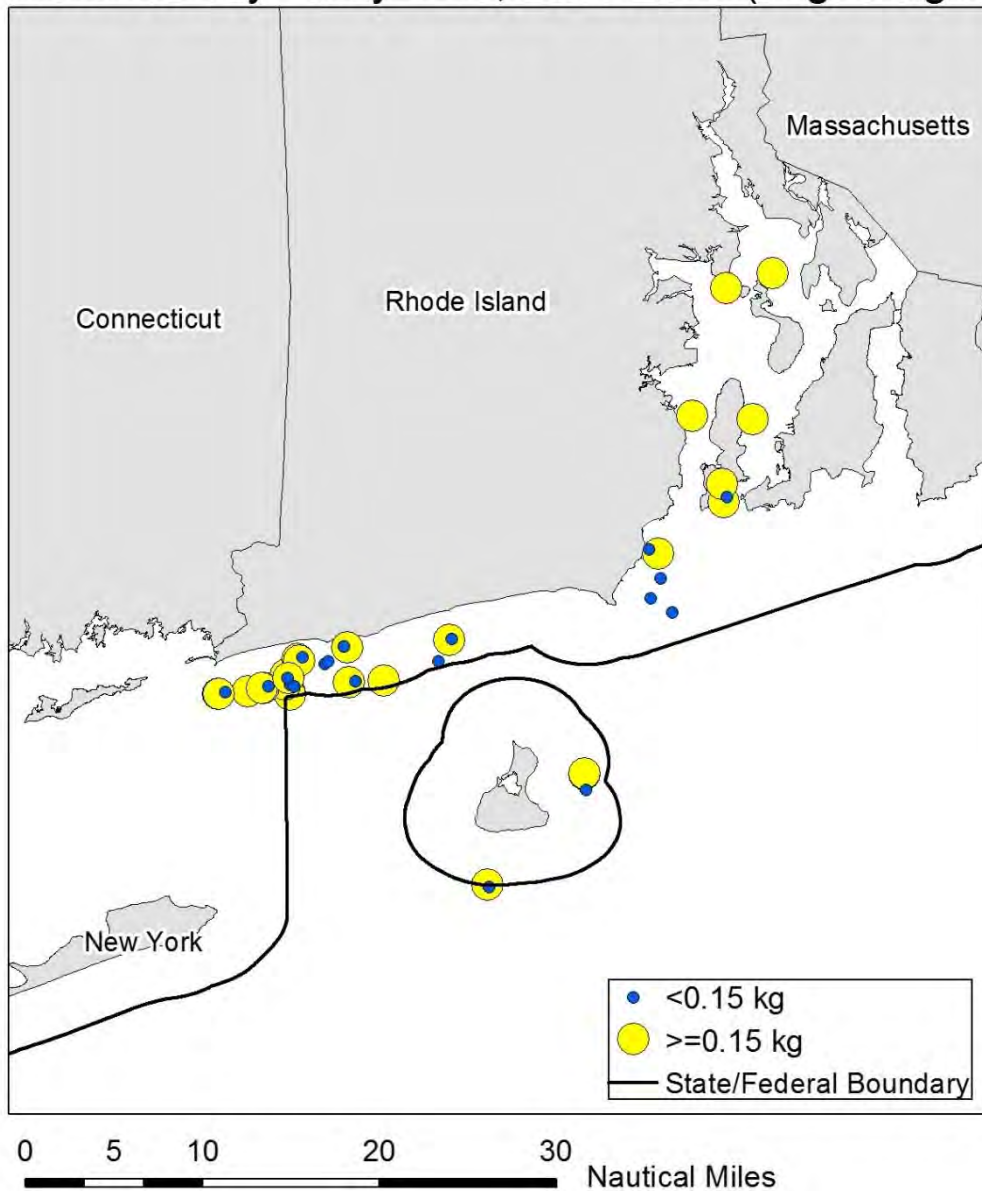


Figure 21. Average weight per scup in the RI DEM coastal fishery resource assessment trawl survey, May 1-15, 2011-2016. Average weights are shown as those less than 0.15 kg and those greater than or equal to 0.15 kg, which is approximately the weight of a scup that has reached the commercial minimum size of nine inches total length (based on Morse 1978 and Hamer 1979).

Clarification on Draft Addendum XXIX: Scup Commercial Quota Management Alternative 3 and Public Comment Summary

Please note: on page 7 of the draft addendum document, Alternative 3 incorrectly states that the first two weeks of May would be moved to the Summer quota period. Alternative 3 in the draft addendum proposes to move the first two weeks of May to the Winter I period. Under Alternative 3, the new start date for Summer quota period is May 16. Following the first sentence describing Alternative 3, the language for the alternative indicates how long the Winter I period would be extended in number of days in May (15) as well as the total number of days (from 120 to 135). The sub-alternatives (3A-3C) correctly explain the accounting procedure for the extension of the Winter I period.

Public comments offered in support of Alternative 3 indicated a clear understanding that the alternative would shorten the Summer quota period and extend the Winter I period by 15 days.

**DRAFT ADDENDUM XXIX TO THE INTERSTATE FISHERY MANAGEMENT
PLAN FOR SUMMER FLOUNDER, SCUP, AND BLACK SEA BASS**

PUBLIC HEARINGS SUMMARIES

| <u>Date</u> | <u>Location</u> |
|----------------|-----------------------------|
| March 20, 2017 | Old Lyme, Connecticut |
| March 21, 2017 | Narragansett, Rhode Island |
| March 23, 2017 | Buzzards Bay, Massachusetts |
| March 28, 2017 | East Setauket, New York |

April 2017

PUBLIC HEARING SUMMARY

Draft Addendum XXIX to the Summer Flounder, Scup, and Black Sea Bass the Interstate Fishery Management Plan

Connecticut

DEEP Marine Headquarters Boating Education Center

333 Ferry Rd

Old Lyme, Connecticut

3/20/2017

Public Attendance: see sign-in sheet (7 members of the public)

State and ASMFC Personnel:

Rep. Craig Miner (ASMFC Commissioner)

Mark Alexander (ASMFC Proxy Commissioner)

Matt Gates (CT DEEP)

Colleen Giannini (CT DEEP)

Kirby Rootes-Murdy (ASMFC)

Summary

Of the 7 members of the public in attendance, 3 spoke against all options offered in the draft addendum. Those who spoke against the options in the addendum, indicated their preference was to lower the federal trip limit in Winter I from 50,000 pounds to approximately 25,000 and to rollover unused quota from Winter I to the Summer period. Those speaking in favor of these recommendations not included in the draft addendum argued that volatility in the price per pound of scup during Winter I is largely driven by the high federal trip limit, and that when multiple federally permitted vessels land fish at or near the trip limit, the large volume of scup 'floods the market', resulting in a decrease in price due to the increase in supply. Additionally, those arguing in favor of these changes noted that maintaining a lower trip limit throughout the year, would allow the price to remain at a more stable, higher level for a longer period time. Those in favor of a lower trip limit lower trip limits noted that it would keep supply stable and maintain a higher price for a longer period of time throughout the year, those in favor of these changes argued that any underutilization of the quota in any of the periods (Winter I, Summer, Winter II) would be addressed. The attendees explained that currently, quota underages are due to low market prices and subsequent low demand, making efforts to fully utilize the current quotas in Winter I and II uneconomical for federal permit holders. It was pointed out that though alternatives 2 and 3 may allow for the state to increase their trip limits during the summer period to better maximize the state quota, the attendees felt that state trip limits would only increase marginally and would be less helpful then lowering current federal trip limits. Lastly, one attendee did provide extended written comments at the public hearing-those comments follow this summary.

New London Seafood Dist. Inc
114 Smith Street
New London, CT 06320
Ph/Fax- (860) 227-7283

March 20,2017

DEEP
333FerryRd.
Old Lyme, CT 06371

To whom it may concern:

As a concerned participant in the Commercial fishing industry I have been solicited to speak for a number of Connecticut fisherman, Connecticut seafood unloading facilities and a number of Seafood purveyors from the NY Fulton Fish Market, Jessop, Maryland and Philadelphia, Penn.

We are speaking about the Mid Atlantic Fishery Management Councils approach to how the Scup allocations have been designated. For years the Federal regulation Winter I period (Jan 1- April 30) has been a 50,000 pound trip limit. The Summer Period (May 1 - Oct 31) falls under State regulations and is divided up according to historic landings. The Winter II period (Nov 1- Dec 31) this year is a 12,000 initial trip limit, then to be adjusted.

This management scheme hasn't been an efficient method of harvesting nor has it had any continuity for the fisherman, fish houses or the general public.

The old days, where fisherman could just "dump truck" scup to port have come to a close. We have to look closer at what has happened in the fisheries, market place and the public whom purchases the scup.

There have been a lot of reasons for these changes, some of which I will discuss, some which I am sure to miss and other brains will have ideas and solutions for. I have been a commercial fisherman for over forty years in Connecticut, fishing the early years in Long Island Sound then moving to Federal waters as the fish pie got divided up throughout the different states. We can review how and why the Mid Atlantic States has the lions share of the Fluke, BSB and Scup landings. This won't identify how the scup fishery has evolved. The scallop industry and Loligo Squid

industries have grown many times over. With this growth has come huge investments not only in the production from the fisherman but substantial growth in marketing and shore side capabilities . A lot of the fisherman from the Mid Atlantic region as well as fisherman from Rhode Island and Connecticut went in that direction.

Due to monies flowing and the availability of quick lucrative squid and scallop trips, the scup landings started dropping off. A lot of this is attributed to scup regulations being heavily implemented. The scup marketplace has always been a moderately priced ethnic fish in the fresh market. Due to the drastic fluctuations in landings due to the growth of these other fisheries, scup started to lose ground in the fresh market. Due to the nature of such large limits during the Winter I period there was a glut of fish driving the prices so low the fisherman and fish houses couldn't make any money or the market would go sky high because of the lack of scup. No happy medium. Introduction of aquacultured fish such as Tilapia , a robust marketing campaign targeting restaurants, large chain stores and a steady supply has badly eaten into the once strong scup strong hold.

I believe we can help correct this feast and famine situation. The Winter I period limit of 50,000 pounds should be reduced to 25-30 thousand pound limits. Take the poundage not landed in the Winter I period, divide it up amongst the States according to their historic percentages for the Summer period. Then utilize the last of the quota for the remaining Winter II period.

I realize that the Mid Atlantic Council has different ideas about how to solve the problem. I and the group of people I have been working with do not think it will solve the issue. What the current management plan has created is a large and jumbo scup that looks wonderful, but is not in high demand in the marketplace. The nature of the Scup consumer is going to remain fresh market. The failure to allow more Scup to be harvested during the summer is huge. We do not need to extend the Winter I period and to stay with the 50,000 limit will not solve the problem, either.

From the fisherman's standpoint, they are constantly fearful of any changes. The changes they are used to are usually taking something away form any already struggling industry. The council has a chance here to do something productive for the fisherman, the fish houses and the consumers. We'll see if they have the vision to make the right choices.

Thank you for taking the time to read these recommendations and for any support you can provide. I can be reached on my direct line (860)227-7283 or at swim@snet.net

Sincerely yours,



Gary J. Yerman

PUBLIC HEARING SUMMARY

Draft Addendum XXIX to the Summer Flounder, Scup, and Black Sea Bass the Interstate Fishery Management Plan

Rhode Island

*University of Rhode Island
Bay Campus Corliss Auditorium
South Ferry Road
Narragansett, Rhode Island*

3/21/2017

Public Attendance: (3 members of the public) Jerry Carvalho, Donald Fox, Mike Hall

State Personnel:

Jason McNamee (ASMFC TC Member)

Robert Ballou (ASMFC Proxy Commissioner)

Nicole Lengyel (RI DEM)

Summary

All three meeting participants provided oral comments. All supported status quo. They offered a number of reasons, most involving the potential for adverse impacts to inshore fishery participants, including but not limited to state-only permit holders, if the summer season were shortened. Alternative 3 was of particular concern, and sub-option 3A was strongly opposed since it could result in a 2-week closed season.

All three participants noted that the quota period dates under the current management program are generally working well and do not need to be modified. It was also noted that in view of the declining trend in annual quota, and increasing trend in annual landings, the problem of under-harvesting is likely to resolve itself, thus obviating the need for any changes to the current management program.

One participant suggested that, in lieu of modifying the dates of the quota periods, as proposed in the draft Addendum, consideration be given to increasing the possession limits during the existing federal Winter periods.

PUBLIC HEARING SUMMARY
Draft Addendum XXIX to the Summer Flounder, Scup, and Black Sea Bass the Interstate Fishery
Management Plan

Massachusetts
*Maritime Academy Admiral's Hall
101 Academy Drive
Bourne, Massachusetts*

3/23/2017

Public Attendance: see sign-in sheet (4 members of the public)

State and ASMFC Personnel:

Raymond Kane (ASMFC Commissioner)

Dan McKiernan (MA DMF)

Megan Ware (ASMFC)

Public Comments:

- Two individuals recommended that the season dates not be changed (status quo). Instead of changing the seasons to increase the amount of scup harvested, they recommended that fishermen in Massachusetts be allowed to fish all 7 days of the week and that the daily catch limit in the summer be increased to roughly 2,000 lbs.
- One individual also noted that scup spawn in May, not June, when greater restrictions are put in place in Massachusetts.

PUBLIC HEARING SUMMARY
Draft Addendum XXIX to the Summer Flounder, Scup, and Black Sea Bass the Interstate Fishery
Management Plan

New York

*Division of Marine Resources
205 North Belle Mead Road, Suite 1
East Setauket, New York*

3/ 28/2017

Public Attendance: see sign-in sheet (5 members of the public)

State and ASMFC Personnel:

Steve Heins (proxy for ASMFC Commissioner Jim Gilmore)

Emerson Hasbrouck (ASMFC Commissioner)

John Maniscalco (NYSDEC staff)

Summary

Unanimous support for Option 3B from all 4 commercial fishers attending the hearing.

David Bornemann: 3B, keep it open with no closures. Small boats can't fish the winter. Long Island Sound needs its own quota because they get access to fish last, after all the other inshore fisheries around NY.

Cynthia Kaminsky: 3B, keep it open and allow us to keep and land all the porgies we can catch. We catch our limit of summer flounder and black sea bass in one tow. Everything else has to go overboard. At least with the higher limits we wouldn't have to discard any porgies.

Arthur Kretschmer: 3B, wants higher limits in May and June when they can get them. With limits always shifting there is no stable business model.

Hank Lackner: 3B, the goal of this addendum should be to reduce discards and catch the quota.

**Written Comment Summary on Draft Addendum XXIX to the Interstate FMP for Summer
Flounder, Scup, and Black Sea Bass**

In total eight comments were received with regard to Draft Addendum XXIX. Of these comments, two commenters- one of which was a group (Town Dock, RI) - indicated their preference for remaining status quo (Alternative 1), one individual was in favor of moving October to Winter II (Alternative 2), and two commenters- one of which was a group (Long Island Commercial Fishing Association) were in favor of moving October to Winter II and the first two weeks of May to Winter I (Alternative 3). Additionally, three individuals provided comments not specifying a preferred alternative; the first two individuals indicated that the scup fishery should not be closed at any part of year, especially in May due to the gear type used. The second individual indicated their preference that any alternative besides Alternative 1 be selected.

| Alt. 1: Status Quo | Alt. 2: Shift October to Winter II | Alt. 3: Shift October to Winter II and 2 weeks in May to Winter I | Unspecified option |
|---------------------------|---|--|---------------------------|
| 2 | 1 | 2 (one of these chose 3b) | 3 |

Reasons cited in support of an alternative varied depending on their preferred alternative. The individuals in support of Status Quo (Alternative 1) were concerned over the stability of the market- wanting to maintain a high price under the current trip limits and quota periods- and whether changes in the quota periods may have negative impacts. Other comments in support of status quo cited concerns over the need to allow the stock to continue to rebuild and felt that if fishermen are not able to fill quotas currently, this may point to a broader issues with the population. The individual in favor of Alternative 2 was concerned about fishermen going after multiple species and current high trip limit may encourage more discarding. Additionally, the individuals focus for Alternative 2 was to allow a larger trip limit in October, which they felt would be beneficial to fishery by potentially reducing discarding at that point in the year. For those commenters in favor of Alternative 3, both indicated that this alternative gave them the best opportunity to catch their state quota in the summer period. Both commenters in favor of alternative 3 cited poor or reduced quotas for summer flounder as being why an increase in opportunity to fish for scup is needed.



March 28, 2017

Kirby Rootes-Murdy
Senior Fishery Management Plan Coordinator
1050 N. Highland Street
Suite A-N
Arlington, VA 22201

Dear Mr. Rootes-Murdy,

I am writing in regards to the call for public input on the management of commercial scup.

Presently, we at the Town Dock support "Status Quo". We rely on the stability of this market and there is a chance that the influx of scup could impact the price, causing it to drop. Since we aren't sure that the market can handle an increase without that negative consequence we don't want to change anything at this time.

Thank you for the opportunity to comment.

Sincerely,
Katie Almeida
Fishery Policy Analyst

From: Bonnie Brady [mailto:greenfluke@optonline.net]
Sent: Friday, March 31, 2017 4:22 PM
To: Comments <comments@asmfc.org>
Subject: Draft Addendum XXIX for scup

The Long Island Commercial Fishing Association supports Alternative 3, allowing for increased catch in the overall daily limit during the shortened summer period, adding 15 days to the Winter 1 period and the addition of the month of October to the Winter 2 period. We feel this is the best option to give us the opportunity to catch our quota, while giving fishermen the ability of turning regulatory discard into landings at a time when other fisheries, such as fluke, are being cut back drastically.

Thank you.

Bonnie Brady

Long Island Commercial Fishing Association

From: Greg DiDomenico [<mailto:gregdi@voicenet.com>]
Sent: Friday, March 31, 2017 4:02 PM
To: Kirby Rootes-Murdy <krootes-murdy@asmfc.org>
Subject: Garden State Seafood Comments on Addendum XXIX

Kirby...Please accept these brief comments.

I brought this issue 4 years ago during a Demersal Monitoring Committee meeting. My request was to have the month of October in the Winter II scup season.

In the context of this addendum we are requesting:

Alternative 2: Move October to the Winter II period. Under this alternative the Summer period would be shortened by 31 days and the Winter II period would be extended by 31 days.

I opposed the May seasonal change during the AP webinar call and at the Board meeting in December.

It is my opinion that during that part of the year a vessel should not be given the chance to direct a 50k trip on a migrating scup stock where discards due to mixing of numerous other species would be probable.

In addition it was my intention to keep the quotas the same for the Summer period as it is the only portion of the quota that is allocated to the states.

At the time I brought this up it was my opinion that the October fishery needed a larger possession limit and that the October fishery would accommodate such a change, I still feel the same.

It was not my intention to create any other outcome but to have the regulations better reflect the seasonality of the fishery possible reduce discards.

I think Alternative 2 achieves that.

Thank you for your consideration of our comments.

Greg DiDomenico

Executive Director

Garden State Seafood Association

From: Hesse, Al [<mailto:ahesse@kingkullen.com>]

Sent: Monday, March 06, 2017 9:24 AM

To: Comments <comments@asmfc.org>

Subject: Scup regulations

Dear Sirs:

Since the purpose of the regulations is to keep the numbers of scup healthy and sustainable ,I see no reason to change the current regulations so the commercial fishery can maximize their quotas. If they are not able to fill the quota then the fish population has not sufficiently rebounded. It would seem to me that since your goal is to rebuild the stock and not maximize the commercial fisheries profits it makes no sense to change the regulations so more fish can be taken in the winter thus reducing the number of fish . Your initial reason for making the regulations was to increase the number of fish then let the numbers increase and if the quota starts to be filled up before the stop dates at that time change the dates. It makes no sense to lessen or change the regulations in a fishery that needs rebuilding to allow a greater catch unless your agenda is not to protect the fishery but maximize the commercial fisheries profits. PLEASE do what you started out to do rebuild the fishery first worry about the big businesses later.

The Fishery is more important than the Commercial interests , If we take care and rebuild the stocks then the Commercial fisherman will be taken care of as well. If we alter the plan to favor them we all lose.

Al Hesse b.s. biology, NY fisherman.

From: Chuck Etzel [mailto:chucketzal@yahoo.com]
Sent: Thursday, March 30, 2017 10:00 AM
To: Comments <comments@asmfc.org>
Subject: Comments regarding scup winter 1 2 season extension

To ASMFC,

I would support extending winter 1 and 2 as long as possible. Here non NY state we have extremely poor allocations of scup, sea bass, fluke, spiny dog, and bunker. Any effort to make things more coast wide would help with our poor allocations. I want to support option 3 b.

Thank you for your time,
Charles Etzel

Sent from my iPhone

From: dannylester [mailto:dannylester@optonline.net]

Sent: Wednesday, March 29, 2017 5:13 PM

To: Comments <comments@asmfc.org>

Subject: Scup

I am writing in regards to say that i do not think the scup fishery should close at any time,especially in may. I am a pound trapper and that is when we catch the scup. Please take this under advisement. Thank you

From: nat miller [mailto:miller_nat@yahoo.com]

Sent: Friday, March 31, 2017 11:16 AM

To: Megan Ware <mware@asmfc.org>

Subject: O

Anything but option one. I am a full time inshore fisherman any I want no risk of closures it's not my fault they didn't land them this winter and should not be penalized when I catch them

Sent from my
iPad

Kirby Rootes-Murdy

From: Kirby Rootes-Murdy
Sent: Monday, April 24, 2017 3:17 PM
To: Kirby Rootes-Murdy
Subject: Scup meeting

-----Original Message-----

From: Corey Forrest [mailto:coreyb.forrest@gmail.com]
Sent: Tuesday, March 21, 2017 4:09 PM
To: Ballou, Robert (DEM) <robert.ballou@dem.ri.gov>
Subject: Scup meeting

Hi Robert,

I cannot attend the meeting tonight. I am not quite sure how this affects the floating fish traps but I wanted to state that we would not be in favor of anything that would be detrimental to our very short trap season. We are very much dependent on being allowed to bring in the volume of scup when they show, which is typically around May 1st. This really goes with any of the species. We need to be able to catch them when they are there.

Thanks,

Corey Wheeler Forrest

Fisherman, fisher dealer, owner
Tallman & Mack INC.
Point Trap Co.



Atlantic States Marine Fisheries Commission

1050 N. Highland Street • Suite 200A-N • Arlington, VA 22201
703.842.0740 • 703.842.0741 (fax) • www.asmfc.org

MEMORANDUM

April 14, 2017

To: Summer Flounder, Scup, and Black Sea Bass Management Board
From: Summer Flounder, Scup, and Black Sea Bass Technical Committee
RE: TC Review of Draft Addendum XXIX

List of Participants

| | | |
|----------------------------|-------------------------------|----------------------|
| John Maniscalco (NY) | Katie May Laumann (VA) | Tiffany Vidal (MA) |
| T.D. Middlesworth (NC) | Kirby Rootes-Murdy (ASMFC) | Emily Gilbert (NMFS) |
| Julia Beaty (MAFMC) | Jason McNamee (RI) | Kiley Dancy (MAFMC) |
| Brandon Muffley (MAFMC) | Rich Wong (DE) | |

The following memo contains the Summer Flounder, Scup, and Black Sea Bass Technical Committee (TC) Review of Draft Addendum XXIX and the proposed alternatives.

Addendum XXIX

The Summer Flounder, Scup, and Black Sea Bass Board approved Draft Addendum XXIX for public comment at their Winter Meeting in February 2017. The draft addendum proposes alternatives to the start and end dates of the current three quota periods (Winter I, Summer, Winter II) that seek to increase the likelihood of the annual coastwide quota being harvested. Since 2011, commercial scup landings have been 20-47% below the commercial quota. Specifically, the proposed alternatives offer to either increase the length of Winter II period by including the month of October (currently included in the Summer period), or increase the length of both the Winter II period (by including October) and increase the Winter I period by two weeks. Both of these alternatives would reduce the length of the Summer period, while maintaining the current quota allocation to each of the periods; effectively increasing the time to achieve the Winter I and/or Winter II quotas while decreasing the time to achieve the Summer period quota. Again, the proposed alternatives are intended to allow higher possession limits for a longer period of time each year, thus increasing the likelihood that the commercial fishery would fully harvest the quota in the future.

The TC met via conference call on April 5th to review the draft addendum and provide comments for the Board's consideration. Below are summary points provided by the TC:

- TC members discussed comments provided at state hearings that they (TC members) presented at. Comments focused largely on market dynamics (supply, demand, and price) and considerations relative to current trip limits.
- The TC did not have any comments specific to the technical information and data used in development of draft addendum. The TC did not have any comments regarding the merits of proposed changes to the quota period start and end times included in the document.
- The TC discussed the potential biological impacts of shifting fishing effort during spring/summer months due to changes in quota period start and end dates. The TC pointed out that the spawning season for scup predominately takes place nearshore from May to August. One TC member said that larger individuals are typically the first to come inshore to spawn. The TC agreed that changes to the quota periods may not impact spawning activity and spawning stock biomass, especially given that fishing effort would still be limited by the quota period allocations and the annual commercial quota. For example, one TC member said that removals of scup would have similar impacts from a population dynamics perspective regardless of which time of year they occurred. Fishing effort changes due to changes in the coastwide quota may have more impacts to the resource than changes to the dates of the quota periods.
- In considering the broader questions of market demand, factors affecting price per pound, and the impacts of current trip limits, one TC member suggested that a socio-economic study should be conducted to better understand the impact of management measures on market demand for scup. The relationship between landings and price is complex and is influenced by many factors, including the frozen market which allows for a controlled release of product to the market. The group acknowledged that much is unknown or unclear in how changes to current federal and state trip limits would impact prices and demand for scup. The TC member pointed to ongoing research and study on Atlantic menhaden that is being supported by the Commission as similar approach that could be used to better understand the scup market.
- Lastly, the group discussed the upcoming stock assessment update for scup to be completed later this year and how its results could affect management. The alternatives considered through Addendum XXIX will have different impacts in years of lower biomass and lower quotas than in years of higher biomass and quotas. Information from recent state conducted YOY surveys on scup indicate continued high abundance in some regions of the coast, but it's unclear how this information may impact the projected spawning stock biomass coastwide and subsequent catch limits.

DRAFT
FRAMEWORK ADJUSTMENT
TO THE
SUMMER FLOUNDER, SCUP, AND BLACK SEA BASS
FISHERY MANAGEMENT PLAN

Includes Environmental Assessment, Regulatory Impact Review, and
Regulatory Flexibility Act Analysis

April 2017

Prepared by the
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1. Executive Summary

This framework action considers modifications to the dates of the commercial scup quota periods. The action alternatives described in this document are intended to help enable the commercial fishery more efficiently meet, but not exceed, the annual commercial quota.

Current management measures for the scup commercial quota periods include allocations of the annual quota among three quota periods, period-specific possession limits, and other measures. These regulations were first implemented in 1997 to prevent the annual commercial quota from being fully harvested early in the year and to address potential issues regarding equitable access to the fishery. Larger vessels typically harvest scup offshore during the winter months and smaller vessels harvest scup inshore during the summer. Without a system of seasonal quota allocation, in years with low quotas, larger vessels could potentially harvest the full annual quota early in the year, leaving no quota for smaller vessels fishing inshore in the summer. The quota period measures are intended to reduce the likelihood of this occurring.

This framework adjustment was initiated in response to requests from commercial fishery advisors and includes three alternatives regarding the dates of the quota periods. Commercial landings would still be restricted to the seasonal and annual quotas under all alternatives. The quotas are based on the best scientific information available and are intended to prevent overfishing and maintain the rebuilt status of the scup stock. As such, all alternatives are expected to have positive impacts on the scup stock by continuing to prevent overfishing. Slight differences in seasonal fishing effort are expected under each alternative. Due to these slight differences, the expected impacts of each alternative on scup, non-target species, human communities, protected species, and habitat differ slightly. The expected impacts are described in detail in section 7.

Under alternative 1 (the no action alternative), all measures associated with the quota periods would remain unchanged. Alternative 1 is expected to have positive impacts on scup and non-target species (section 7.1.1), mixed (i.e. both positive and negative) socioeconomic impacts (section 7.2.1), slight negative impacts on protected species (section 7.3.1), and neutral impacts on physical habitat (section 7.4.1; Table 1).

Under alternative 2, October would become part of the Winter II quota period, as opposed to the Summer period under the no action alternative (alternative 1). Alternative 2 would result in an increased commercial possession limit during the month of October, compared to the no action alternative. Landings would still be restricted to the period quotas and the annual commercial quota. The annual quota is based on the best available science and is intended to prevent overfishing. As such, alternative 2 is expected to have positive impacts on scup and non-target species (section 7.1.2); however, because fishing effort during October is expected to increase slightly under alternative 2, these positive impacts are expected to be slightly lesser in magnitude than the positive impacts of the no action alternative (alternative 1). Due to the expected slight

increase in landings (and thus revenues), alternative 2 is expected to have slight positive socioeconomic impacts compared to the no action alternative (section 7.2.2). Due to the slight increase in fishing effort, it is expected to have slight negative impacts on protected species (section 7.3.2) and physical habitat (section 7.4.2; Table 1).

Alternative 3 includes three sub-alternatives. Under alternative 3.A, October would become part of the Winter II quota period (as opposed to the Summer period under the no action alternative; alternative 1) and May 1-15 would become part of the Winter I period (as opposed to the Summer period under the no action alternative). Under current regulations (50 CFR 648.123(a)(2)(iv)), in certain circumstances, landings during April 15-30 by state-only permit holders may be counted towards a state's Summer period allocation in years when the Winter I fishery closes before April 15. Under alternative 3.A, these regulations would remain unchanged. Alternatives 3.B and 3.C are identical to alternative 3.A, except in regard to these special quota counting procedures. Under alternative 3.B the dates of the quota periods would be modified as described for alternative 3.A and the quota counting procedures would be modified such that they could be used during up to four weeks prior to new the start of the Summer quota period (i.e. April 15-May 15, as opposed to April 15-30 under the no action alternative). Under alternative 3.C the quota period dates would be modified as previously described and the quota counting procedures would be modified such that they could be used during two weeks prior to the new start of the Summer quota period (i.e. May 1-15, as opposed to April 15-30 under the no action alternative). Alternative 3.C would also specify that these procedures could be used when the Winter I fishery closes prior to May 1 (rather than April 15 under current regulations).

Alternatives 3.A-3.C would result in an increased commercial scup possession limit during May 1-15 and during October, compared to the no action alternative (alternative 1). This is expected to lead to a slight increase in fishing effort for and landings of scup for six weeks each year. Landings would still be restricted to the quota period allocations and to the annual quota; therefore, alternatives 3.A-3.C are expected to have positive impacts on scup and non-target species (sections 7.1.3.1 - 7.1.3.3). Due to the expected slight increase in landings (and thus revenues), they are expected to have slight positive socioeconomic impacts (sections 0 - 7.2.3.3). Due to the slight increase in fishing effort, they are expected to have slight negative impacts on protected species (sections 7.3.3.1 - 7.3.3.3) and physical habitat (sections **Error! Reference source not found.** - 7.4.3.3; Table 1) due to the slightly increased potential for interactions with fishing gear.

When comparing across alternatives, alternative 1 is expected to have the most positive impacts on scup and non-target species, followed by alternatives 2, 3.A, 3.C, and 3.B. Alternative 3.C is expected to have the most positive socioeconomic impacts, followed by alternatives 3.A, 3.B, 2, and 1. Alternative 3.C has the highest potential for negative impacts to protected species and habitat, followed by alternatives 3.A, 3.B, 2, and 1.

[Statements about cumulative impacts and FONSI to be added after the Council selects preferred alternative(s)]

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Table 1: Summary of the expected impacts of the alternatives on managed species, human communities, protected species, and physical habitat. “0” indicates a neutral impact. “+” indicates a positive impact and “-” indicates a negative impact. “SI” indicates a slight impact. “Mixed” refers to both positive and negative impacts.

| Alternative | Winter I (50,000 lb possession limit) | Summer (state-specific possession limits, all <10,000 lb) | Winter II (at least 12,000 lb possession limit, depending on Winter I quota rollover) | Expected Impacts | | | |
|---|--|--|--|-------------------------------------|--------------------|----------------------|---------|
| | | | | Scup & Non- Target Species | Socio- economic | Protected Species | Habitat |
| 1: No Action | Jan. 1 – Apr. 30 (120 days) | May 1 – Oct. 31 (184 days) | Nov. 1 – Dec. 31 (61 days) | + | Mixed | SI- | 0 |
| 2: Move October to Winter II | Jan. 1 – Apr. 30 (120 days) | May 1 – Sept. 30 (153 days) | Oct. 1 – Dec. 31 (92 days) | + | SI+ | SI- | SI- |
| 3.A: Move October to Winter II & May 1-15 to Winter I; No Changes to Quota Counting Procedures | Jan. 1 – May 15 (135 days) | May 16 – Sept. 30 (138 days) | Oct. 1 – Dec. 31 (92 days) | + | SI+ | SI- | SI- |
| 3.B: Move October to Winter II & May 1-15 to Winter I; Modify End Dates of Special Quota Counting Procedures | | | | + | SI+ | SI- | SI- |
| 3.C: Move October to Winter II & May 1-15 to Winter I; Modify Beginning & End Dates of Special Quota Counting Procedures | | | | + | SI+ | SI- | SI- |

2. List of Acronyms and Abbreviations

| | |
|------------|--|
| ACL | Annual Catch Limit |
| AM | Accountability Measure |
| AP | Advisory Panel |
| ASMFC | Atlantic States Marine Fisheries Commission |
| Board | The ASMFC's Summer Flounder, Scup, and Black Sea Bass Management Board |
| CEQ | Council on Environmental Quality |
| Commission | Atlantic States Marine Fisheries Commission |
| Council | Mid-Atlantic Fishery Management Council |
| CPUE | Catch Per Unit Effort |
| CS | Consumer Surplus |
| DPSWG | Data Poor Stocks Working Group |
| EFH | Essential Fish Habitat |
| EMU | Ecological Marine Unit |
| EO | Executive Order |
| ESA | Endangered Species Act |
| F | Fishing Mortality |
| FMP | Fishery Management Plan |
| FONSI | Finding of No Significant Impact |
| GARFO | NMFS Greater Atlantic Regional Fisheries Office |
| MAFMC | Mid-Atlantic Fishery Management Council |
| MMPA | Marine Mammal Protection Act |
| MRIP | Marine Recreational Information Program |
| MSA | Magnuson-Stevens Fishery Conservation and Management Act |
| NEAMAP | Northeast Area Assessment and Monitoring Program |
| NEFOP | Northeast Fisheries Observer Program |
| NEFSC | Northeast Fisheries Science Center |
| NEPA | National Environmental Policy Act |
| NMFS | National Marine Fisheries Service |
| PRA | Paperwork reduction Act |
| PS | Producer Surplus |

| | |
|---------|--|
| RFA | Regulatory Flexibility Act |
| RI DEM | Rhode Island Department of Environmental Management |
| RIR | Regulatory Impact Review |
| SARC | Stock Assessment Review Committee |
| SAW | Stock Assessment Work Group |
| URI GSO | University of Rhode Island Graduate School of Oceanography |
| USFWS | United States Fish and Wildlife Service |
| VEC | Valued Ecosystem Component |

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3. Contents, Tables, and Figures

3.1. Contents

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4. Introduction and Background

4.1. Goal of Framework

This framework action considers modifications to the dates of the commercial scup quota periods. The action alternatives described in this document are intended to help enable the commercial fishery more efficiently meet, but not exceed, the annual commercial quota.

4.2. Background and History of Scup Quota Periods

The Mid-Atlantic Fishery Management Council (the Council) and the Atlantic States Marine Fisheries Commission (the Commission) cooperatively manage commercial and recreational scup fisheries under the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan (FMP). The management unit for the FMP includes scup in U.S. waters in the western Atlantic Ocean from Cape Hatteras, North Carolina northward. The Council develops recommendations for regulations in Federal waters. The National Marine Fisheries Service (NMFS) reviews these regulations and implements them if they are deemed to be consistent with FMP objectives and other statutory requirements, including the Magnuson-Stevens Fishery Conservation and Management Act (MSA). NMFS also serves as the Federal enforcement agency. The Commission works with member states to develop regulations for state waters.

Amendment 8 to the FMP was approved by NMFS in 1996 and established several coastwide management measures for the scup fishery. At the time, the scup stock was overexploited. Amendment 8 included several measures to rebuild the stock, including a coastwide commercial quota, which became effective on January 1, 1997. During development of amendment 8, the Council and Commission considered, but did not fully develop, a system of quota allocation and possession limits. They submitted amendment 8 to NMFS before fully developing these measures so the other measures in amendment 8 could be implemented as quickly as possible and the rebuilding program could begin. However, without trip limits and seasonal allocations, the annual quota could be fully harvested early in the year, which could have economic implications for the entire fishery and could lead to issues regarding equitable access to the fishery. Larger vessels tend to harvest scup offshore during the winter months and smaller vessels tend to harvest scup inshore during the summer. If larger vessels were to harvest the full annual quota early in the year, smaller vessels would not be able to harvest scup in the summer. To address this issue, the Council and Commission developed three seasonal quota periods, each allocated a percentage of the annual commercial quota and each with different possession limits. These measures were first implemented in 1997 through a regulatory amendment to the FMP (MAFMC 1996; 62 *Federal Register* 27978, May 22, 1997).

The Council and Commission have not modified the dates of the quota periods or the allocation percentages since they were first implemented. These measures include a Winter I period from January 1 through April 30, which is allocated 45.11% of the annual quota; a Summer period from May 1 through October 31, which is allocated 38.95% of the annual quota; and a Winter II quota period from November 1 through December 31, which is allocated 15.94% of the annual

commercial quota (Table 2). The Summer period quota is further divided into state shares (Table 3) which are managed by the Commission (ASMFC 2002).

Commercial landings data from 1983 through 1992 were used to define the dates and allocations for the quota periods, including the state allocations for the Summer period. These years were thought to best represent historical participation in the fishery and included years when scup were abundant (though they have become far more abundant since then; NEFSC 2015b) and available to both northern and southern states (MAFMC 1996). There was some concern that these data underestimated harvests from state waters with some gear types, especially in Massachusetts. To address this concern, the state summer shares were modified in 2002 through Addendum V to the Commission's FMP (ASMFC 2002).

The Council and Commission have modified the seasonal possession limits several times since they were first implemented. Current regulations include a 50,000 pound possession limit during Winter I. If 80% of the Winter I quota is harvested, the possession limit drops to 1,000 pounds for the remainder of the Winter I period. The initial Winter II possession limit is 12,000 pounds. If the Winter I quota is not fully harvested, unused quota may rollover to the Winter II period. If this occurs, NMFS may increase the Winter II possession limit by 1,500 pounds for every 500,000 pounds of quota transferred from Winter I. There are no Federal waters possession limits during the Summer period; however, various state-specific possession limits are enforced in state waters. These possession limits are all much lower than the Federal Winter I and Winter II possession limits (Table 4).

The Federal commercial scup fishery is closed coastwide when the allocation for a given quota period is landed. Any overages during a given quota period are subtracted from that period's allocation for the following year. If the Summer period quota is exceeded, the Commission subtracts overages from a future year's Summer period share for the states which had overages. If an individual state exceeds its Summer quota, but the overall Summer quota is not exceeded, deductions are not applied.

Framework Adjustment 3 to the FMP, implemented in 2003, resulted in new Federal regulations (50 CFR 648.123(a)(2)(iv)) which state: "During a fishing year in which the Winter I quota period is closed prior to April 15, a state may apply to the [NMFS] Regional Administrator for authorization to count scup landed for sale in that state from April 15 through April 30 by state-only permitted vessels fishing exclusively in waters under the jurisdiction of that state against the Summer period quota. Requests to the Regional Administrator to count scup landings in a state from April 15 through April 30 against the Summer period quota must be made by letter signed by the principal state official with marine fishery management responsibility and expertise, or his/her designee, and must be received by the Regional Administrator no later than April 15" (68 *Federal Register* 62251, November 3, 2003).

Scup are occasionally available in state waters prior to the beginning of the Summer period (i.e. May 1). If the Winter I quota were to be fully harvested before the end of the period, these

regulations would allow landings from state-only permit holders fishing in state waters during April 15-30 to count towards the Summer quota. Otherwise, landings during April 15-30 would count towards the Winter I quota and could result in a reduction in the Winter I quota in a following year, as required by accountability measures in the FMP. Federally-permitted vessels would be prohibited from landing scup during April 15-30, even if those scup were caught in state waters. These regulations were intended to increase the efficiency of the fishery, while still restricting landings to the Summer period quota (MAFMC 2003). Since Framework 3 was implemented in 2003, the Winter I period has not closed prematurely; thus, these special quota counting provisions have never been used.

The scup stock was declared rebuilt in 2009 based on the findings of a new stock assessment (DPSWG 2009). The commercial scup quota nearly doubled between 2010 and 2011 in response to this new assessment information. The commercial fishery has not exceeded the annual commercial quota or any of the period quotas since that time (Table 5, Figure 1). Prior to 2011, the Winter I quota was exceeded three times by an average of 30%, the Summer quota was exceeded five times by an average of 33%, and the Winter II quota was exceeded seven times by an average of 24% (Table 5, Figure 1).

Over 2011-2016 commercial landings were 20-47% below the commercial quota (Table 5). Some members of the Council and Commission’s Summer Flounder, Scup, and Black Sea Bass Advisory Panels (APs) have argued that the restrictive possession limits during the Summer period (Table 4), compared to the Winter I and Winter II periods (Table 2), prevent fishermen from landing high volumes of scup when they are available. These restrictions limit the ability of the fishery to achieve the annual commercial quota and can thus result in foregone yield. The action alternatives described in the next section were suggested by AP members and would both increase the amount of time each year that the Winter I and/or Winter II possession limits are in effect.

Table 2: Commercial scup quota period dates, percentage of annual quota allocated, and Federal waters possession limits.

| Quota Period | Dates | % of annual quota | Possession limit |
|---------------------|--------------|--------------------------|---|
| Winter I | Jan 1–Apr 30 | 45.11% | 50,000 pounds |
| Summer | May 1–Oct 31 | 38.95% | State-specific (Table 4) |
| Winter II | Nov 1–Dec 31 | 15.94% | At least 12,000 pounds, depending on amount of unused quota transferred from Winter I |

Table 3: State allocations of commercial scup quota for the Summer quota period.

| State | Share of summer quota |
|----------------|------------------------------|
| Maine | 0.1210% |
| New Hampshire | 0.0000% |
| Massachusetts | 21.5853% |
| Rhode Island | 56.1894% |
| Connecticut | 3.1537% |
| New York | 15.8232% |
| New Jersey | 2.9164% |
| Delaware | 0.0000% |
| Maryland | 0.0119% |
| Virginia | 0.1650% |
| North Carolina | 0.0249% |

Table 4: Commercial scup possession limits for trawl vessels in state waters during the Summer quota period (May 1 – October 31) in 2016.

| State | Dates | Possession limit |
|----------------|---------------------|-------------------------------|
| Maine | May 1 – Oct 31 | None |
| New Hampshire | May 1 – Oct 31 | None (allocated no quota) |
| Massachusetts | May 1 – Oct 31 | 800 lb |
| Rhode Island | May 1 – Oct 31 | 10,000 lb per vessel per week |
| Connecticut | May 1 – July 2 | 1,500 lb |
| | July 3 – November 1 | 750 lb |
| New York | May 1 – Oct 31 | 800 lb |
| New Jersey | May 1 – Oct 31 | 5,000 lb |
| Delaware | May 1 – Oct 31 | None (allocated no quota) |
| Maryland | May 1 – Oct 31 | None |
| Virginia | May 1 – Oct 31 | None |
| North Carolina | May 1 – Oct 31 | None |

Table 5: Scup commercial landings, commercial period and annual quotas, and quota overages/underages, 1997-2016. Quotas may differ from those published in the Federal Register by small amounts due to conversions between metric tons and pounds.

| Year | Period | Landings | Quota | Overage/Underage |
|------|-----------|-----------|------------|------------------|
| 1997 | Winter I | 2,069,495 | 2,706,600 | -24% |
| | Summer | 2,185,950 | 2,337,000 | -6% |
| | Winter II | 567,461 | 956,400 | -41% |
| | Total | 4,822,906 | 6,000,000 | -20% |
| 1998 | Winter I | 1,869,765 | 2,061,527 | -9% |
| | Summer | 1,503,525 | 1,780,015 | -16% |
| | Winter II | 806,511 | 728,458 | +11% |
| | Total | 4,179,801 | 4,570,000 | -9% |
| 1999 | Winter I | 1,244,642 | 1,141,283 | +9% |
| | Summer | 1,336,056 | 985,435 | +36% |
| | Winter II | 737,527 | 403,282 | +83% |
| | Total | 3,318,225 | 2,530,000 | +31% |
| 2000 | Winter I | 1,384,252 | 789,425 | +75% |
| | Summer | 1,241,515 | 681,625 | +82% |
| | Winter II | 34,726 | 278,950 | -88% |
| | Total | 2,660,493 | 1,750,000 | +52% |
| 2001 | Winter I | 1,669,765 | 1,578,850 | +6% |
| | Summer | 1,619,940 | 1,363,250 | +19% |
| | Winter II | 777,791 | 557,900 | +39% |
| | Total | 4,067,496 | 3,500,000 | +16% |
| 2002 | Winter I | 3,200,636 | 3,270,475 | -2% |
| | Summer | 2,945,435 | 2,823,875 | +4% |
| | Winter II | 1,135,789 | 1,155,650 | -2% |
| | Total | 7,281,860 | 7,250,000 | 0% |
| 2003 | Winter I | 3,737,539 | 5,458,310 | -32% |
| | Summer | 4,456,786 | 4,712,950 | -5% |
| | Winter II | 1,698,329 | 1,928,740 | -12% |
| | Total | 9,892,654 | 12,100,000 | -18% |
| 2004 | Winter I | 3,636,847 | 5,566,574 | -35% |
| | Summer | 4,062,107 | 4,806,430 | -15% |
| | Winter II | 1,618,150 | 1,966,996 | -18% |
| | Total | 9,317,104 | 12,340,000 | -24% |
| 2005 | Winter I | 3,684,690 | 5,516,953 | -33% |
| | Summer | 4,264,400 | 4,763,585 | -10% |
| | Winter II | 1,454,989 | 1,949,462 | -25% |
| | Total | 9,404,079 | 12,230,000 | -23% |
| 2006 | Winter I | 3,618,623 | 5,381,623 | -33% |
| | Summer | 3,220,954 | 4,646,735 | -31% |

| Year | Period | Landings | Quota | Overage/Underage |
|--|-----------|------------|------------|------------------|
| | Winter II | 2,115,468 | 1,901,642 | +11% |
| | Total | 8,955,045 | 11,930,000 | -25% |
| 2007 | Winter I | 3,400,939 | 4,014,790 | -15% |
| | Summer | 4,254,996 | 3,466,550 | +23% |
| | Winter II | 1,590,755 | 1,418,660 | +12% |
| | Total | 9,246,690 | 8,900,000 | +4% |
| 2008 | Winter I | 2,359,245 | 2,363,764 | 0% |
| | Summer | 1,933,254 | 2,040,980 | -5% |
| | Winter II | 894,145 | 835,256 | 7% |
| | Total | 5,186,644 | 5,240,000 | -1% |
| 2009 | Winter I | 3,774,596 | 3,775,707 | 0% |
| | Summer | 3,072,660 | 3,260,115 | -6% |
| | Winter II | 1,356,972 | 1,334,178 | 2% |
| | Total | 8,204,228 | 8,370,000 | -2% |
| 2010 | Winter I | 4,740,690 | 4,817,748 | -2% |
| | Summer | 4,175,259 | 4,159,860 | 0% |
| | Winter II | 1,482,673 | 1,702,392 | -13% |
| | Total | 10,398,622 | 10,680,000 | -3% |
| 2011 | Winter I | 5,806,236 | 9,184,396 | -37% |
| | Summer | 6,642,296 | 7,930,220 | -16% |
| | Winter II | 2,583,514 | 3,245,384 | -20% |
| | Total | 15,032,046 | 20,360,000 | -26% |
| 2012 | Winter I | 5,435,576 | 12,590,201 | -57% |
| | Summer | 6,762,839 | 10,870,945 | -38% |
| | Winter II | 2,685,725 | 4,448,854 | -40% |
| | Total | 14,884,140 | 27,910,000 | -47% |
| 2013 | Winter I | 7,526,881 | 10,614,383 | -29% |
| | Summer | 8,215,177 | 9,164,935 | -10% |
| | Winter II | 2,131,981 | 3,750,682 | -43% |
| | Total | 17,874,039 | 23,530,000 | -24% |
| 2014 | Winter I | 6,238,586 | 9,901,645 | -37% |
| | Summer | 7,543,741 | 8,549,525 | -12% |
| | Winter II | 2,181,849 | 3,498,830 | -38% |
| | Total | 15,964,176 | 21,950,000 | -27% |
| 2015 | Winter I | 7,470,126 | 9,576,853 | -22% |
| | Summer | 7,414,606 | 8,269,085 | -10% |
| | Winter II | 2,145,234 | 3,498,830 | -39% |
| | Total | 17,029,966 | 21,950,000 | -22% |
| 2016 (landings are preliminary) | Winter I | 6,091,427 | 9,234,017 | -34% |
| | Summer | 7,264,608 | 7,973,065 | -9% |
| | Winter II | 2,389,169 | 3,262,918 | -27% |
| | Total | 15,745,204 | 20,470,000 | -23% |

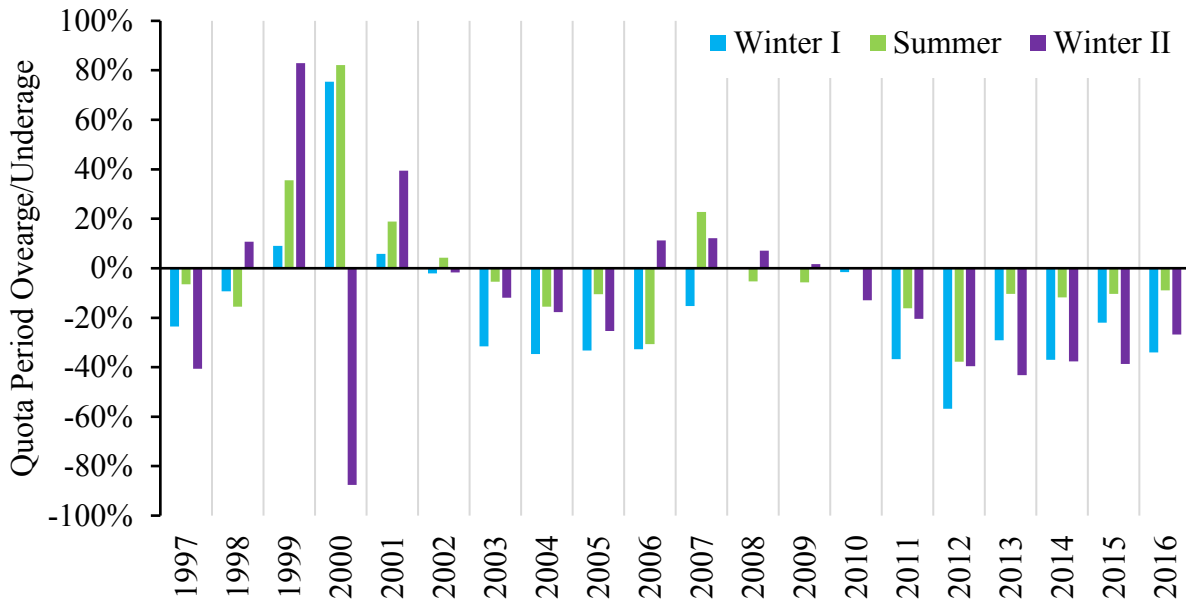


Figure 1: Commercial scup landings by quota period, shown as percent above (overage) or below (underage) the period quota, 1997-2016, Maine through North Carolina. 2016 landings are preliminary.

5. Management Alternatives

The following sections describe the management alternatives considered by the Council and the Commission’s Summer Flounder, Scup, and Black Sea Bass Management Board (the Board). The action alternatives (i.e. alternatives 2 and 3.A-3.C) include changes to the dates of the quota periods. These dates are included in both the Council and Commission FMPs; therefore, the Council and Board must select the same preferred alternatives for the change to be implemented. The Board is developing a complementary addendum (addendum XXIX) to implement any recommended changes.

The Council and Board did not consider alternatives relative to other aspects of the commercial quota periods such as the quota period allocations, possession limits, or quota rollover provisions. The action alternatives were initially recommended by commercial fishing industry advisors and are intended to help the fishery achieve (but not exceed) the annual commercial quota. No other changes were considered because the proposed changes to the dates of the quota periods were deemed sufficient to address this objective.

5.1. Alternative 1: No Action

Under alternative 1, the Council and Board would take no action and all measures associated with the commercial scup quota periods would remain unchanged. These measures are described in section 0.

5.2. Alternative 2: Move October to the Winter II Quota Period

Under alternative 2, October would become part of the Winter II quota period. The Summer period would last from May 1 – September 30 and would be 31 days shorter than under the no action alternative (alternative 1). The Winter II period would last from October 1 through December 31 and would be 31 days longer than under the no action alternative. The allocations of quota among the periods, the quota rollover provisions, the possession limits, and all other measures associated with the quota periods would remain unchanged (Table 2 - Table 4). The dates of the Winter I period would remain unchanged.

This alternative was proposed by AP members. They recommended this change because it would increase the possession limit during the month of October (Table 2 and Table 4). They argued that this change would lead to increased landings and would help the fishery to reach the annual commercial quota. As previously stated, over 2011-2016 commercial landings were 20-47% below the commercial quota (Table 5).

5.3. Alternative 3: Move May 1-15 to the Winter I Quota Period and Move October to the Winter II Quota Period

Alternative 3 contains three sub-alternatives (i.e. alternatives 3.A - 3.C), which are described in the following sections.

5.3.1. Alternative 3.A: Move May 1-15 to the Winter I Quota Period, Move October to the Winter II Quota Period, and Take No Action on Winter I and Summer Quota Counting Procedures

Under alternative 3.A, May 1-15 would become part of the Winter I quota period and October would become part of the Winter II period. The Winter I period would thus last from January 1 through May 15 and would be 15 days longer than under the no action alternative (alternative 1). The Summer period would last from May 16 through September 30 and would be 46 days shorter than under the no action alternative. The Winter II period would last from October 1 through December 31 and would be 31 days longer than under the no action alternative.

Like alternative 2, this modification was proposed by AP members. They recommended this change because it would increase the possession limit for six weeks out of the year (Table 2 and Table 4). They argued that this change would lead to increased landings and would help the fishery to reach the annual commercial quota. As previously stated, over 2011-2016 commercial landings were 20-47% below the commercial quota (Table 5).

Additionally, under alternative 3.A, the regulations which allow for landings by state-only permit holders during April 15-30 to count towards the Summer quota in certain circumstances would remain unchanged (described in more detail in section 4.2 and 50 CFR 648.123(a)(2)(iv)). This could result in circumstances in which the Winter I fishery could close by April 15 and state-permitted vessels could count landings during April 15-30 towards the Summer period quota.

The commercial fishery would then close from May 1-15 for all permit holders (state and Federal) and would resume on May 16 (the new start of the Summer period under this alternative).

5.3.2. Alternative 3.B: Move May 1-15 to the Winter I Quota Period, Move October to the Winter II Quota Period, and Modify the End Dates of the Winter I and Summer Quota Counting Procedures

Under alternative 3.B, the dates of the three quota periods would be modified as described for alternative 3.A and the regulations at 50 CFR 648.123(a)(2)(iv) (described in section 4.2) would be modified such that, in years when the Winter I period closes prior to April 15, landings by state-only permit holders fishing in state waters during April 15 – May 15 (rather than April 15–30 as in current regulations) could count towards the Summer period quota. This would increase the length of the period for this special quota counting procedure by two weeks. As stated in current regulations, states would need to submit a written request for use of this provision to the NMFS regional administrator prior to April 15. Thus, if the Winter I fishery were to close after April 15, but prior to May 16 (the new start of the Summer period under this alternative), this provision could not be used.

5.3.3. Alternative 3.C: Move May 1-15 to the Winter I Quota Period, Move October to the Winter II Quota Period, and Modify the Beginning and End Dates of the Winter I and Summer Quota Counting Procedures

Under alternative 3.C, the dates of the three quota periods would be modified as described in section 5.3.1 and the regulations at 50 CFR 648.123(a)(2)(iv) (described in section 4.2) would be modified such that in years when the Winter I period closes prior to May 1, landings by state-only permit holders fishing in state waters during May 1-15 (rather than April 15–30 under current regulations) could count towards the Summer period quota. The regulations would also be modified such that states would have to request these special provisions by May 1, as opposed to April 15 under current regulations. If the Winter I fishery were to close after May 1, but prior to May 16 (the new start of the Summer period under this alternative), then this provision could not be used.

6. Description of the Affected Environment

The affected environment consists of those physical, biological, and human components of the environment expected to experience impacts if any of the actions considered through this framework adjustment were to be implemented. This document focuses on four aspects of the affected environment, which are defined as valued ecosystem components (VECs).

The VECs include:

- Scup and non-target species caught in scup fisheries
- Human communities

- Protected species
- Physical habitat

The following sections describe the recent condition of the VECs.

6.1. Scup and Non-Target Species

6.1.1. Scup

Scup are a schooling, demersal (i.e. bottom-dwelling) species. They are found in a variety of habitats in the Mid-Atlantic. Essential fish habitat (EFH) for scup includes demersal waters, areas with sandy or muddy bottoms, mussel beds, and sea grass beds from the Gulf of Maine through Cape Hatteras, North Carolina. Scup undertake extensive seasonal migrations between coastal and offshore waters. They are mostly found in estuaries and coastal waters during the spring and summer. Larger individuals tend to arrive in inshore areas in the spring before smaller individuals. They move offshore and to the south, to outer continental shelf waters south of New Jersey in the fall and winter (Steimle et al. 1999, NEFSC 2015b).

The distribution of scup catch in the spring and fall NEFSC bottom trawl surveys illustrates the seasonal movements of scup (Figure 2 and Figure 3). During 2011-2015, the spring survey mostly took place during March - May. Average bottom temperature at all survey stations was about 7°C and scup were mostly caught offshore (Figure 2). The fall survey mostly took place during September – November. Average bottom temperature at all survey stations was about 10°C and scup tended to be caught much closer to shore than during the spring survey (Figure 3).

The alternatives considered in this document propose changes to the dates of the commercial scup quota periods during the months of October and/or May 1-15 (section 5). Several fisheries-independent trawl surveys were examined in more detail to assess the distribution of scup during these times of year.¹ The northeast area assessment and monitoring program (NEAMAP,) Rhode Island Department of Environmental Management (RI DEM), University of Rhode Island Graduate School of Oceanography (URI GSO), and Massachusetts Department of Marine Fisheries (MA DMF) surveys suggest that adult scup² are present both in state and Federal waters during May 1-15 (Figure 4 - Figure 10). The NEAMAP and NEFSC trawl surveys indicate that adult scup are present in both state and Federal waters during October. The RI

¹ Scup catch during May 1-15 and October in some trawl surveys are not summarized in this document because those surveys either did not operate during May or October (i.e. MA DMF fall survey, Chesapeake Bay Multispecies Monitoring and Assessment Program [ChesMMAP] survey in October), caught very few or no scup during those months (i.e. NEFSC spring survey during May, New Jersey's Delaware Bay trawl survey), or only caught juvenile scup during those months (i.e. state of Delaware trawl survey, ChesMMAP survey in May).

² Adult scup were defined based on an average weight per scup per survey tow of at least 0.15 kg. This value is based on a length of 9-inches total length, which is the length at which nearly all scup are sexually mature (NEFSC 2015b) and is also the minimum size for retention in the commercial fishery. Total length was converted to fork length using the relationship described in Hamer (1979) and converted to kilograms using the length/weight relationship described in Morse (1978).

DEM, URI GSO, and New Jersey Ocean Trawl surveys indicate that scup are present in both state and Federal waters during October, but that most are juveniles (Figure 11 - Figure 20).

Scup spawn once annually over weedy or sandy areas, mostly off southern New England. Spawning takes place from May through August and usually peaks in June and July (Steimle et al. 1999). About 50% of scup are sexually mature at two years of age and about 17 cm (7 inches) total length. They reach a maximum age of at least 14 years; however, few scup older than age 7 are caught in the Mid-Atlantic (DPSWG 2009, NEFSC 2015b).

Adult scup are benthic feeders. They consume a variety of prey, including small crustaceans, polychaetes, mollusks, small squid, vegetable detritus, insect larvae, hydroids, sand dollars, and small fish. Scup are prey for several predators, including sharks, skates, silver hake, bluefish, summer flounder, black sea bass, weakfish, lizardfish, king mackerel, and monkfish (Steimle et al. 1999).

The Council managed scup under a formal rebuilding plan from 2005 through 2009. NMFS declared the scup stock rebuilt in 2009 based on the findings of the Data Poor Stocks Working Group (DPSWG 2009).

The most recent scup benchmark stock assessment took place in 2015 and found that scup were not overfished and overfishing was not occurring in 2014. Spawning stock biomass was estimated to be about 210% of the target biomass. Fishing mortality in 2014 was estimated to be about 57% of the overfishing threshold (NEFSC 2015b).

A data update with information on scup fishery catch, landings, and discards, as well as NEFSC and state survey catches through 2015 indicated that scup biomass continued to be high, relative exploitation ratios remain low, and the 2015 year class appears to be large (NEFSC 2016a).

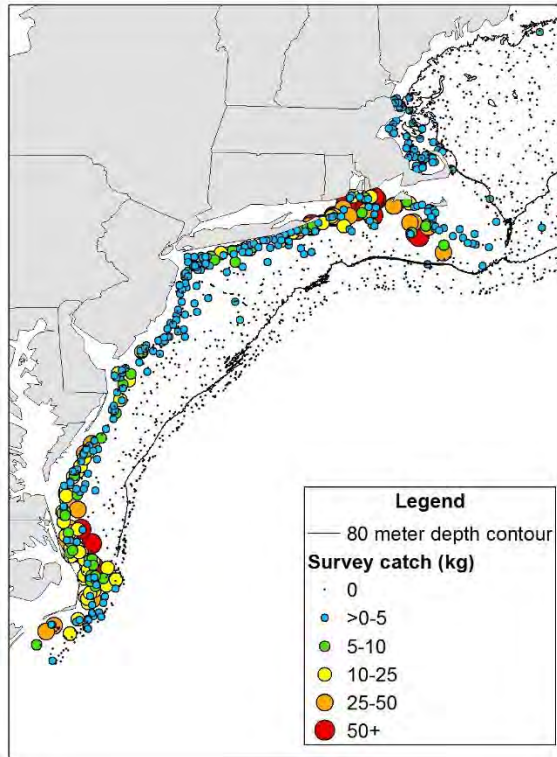
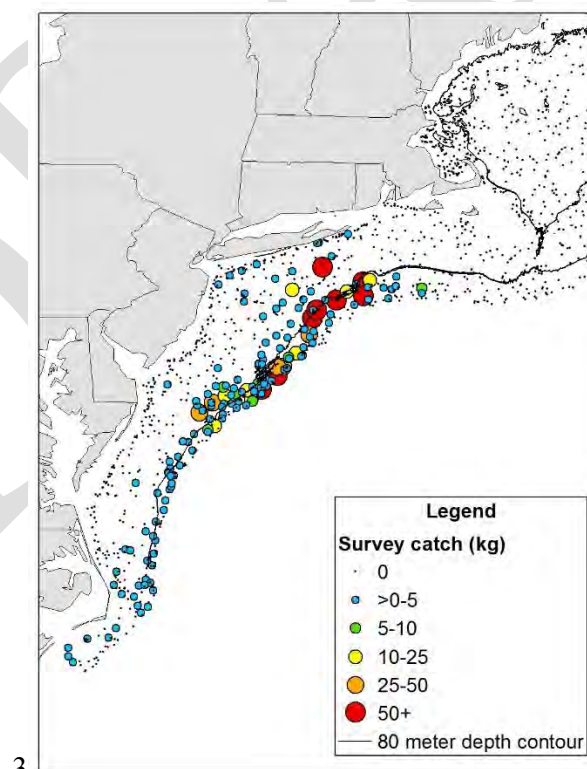


Figure 2: Scup catch in the NEFSC spring bottom trawl survey, 2011-2015.



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Figure 3: Scup catch in the NEFSC fall bottom trawl survey, 2011-2015.

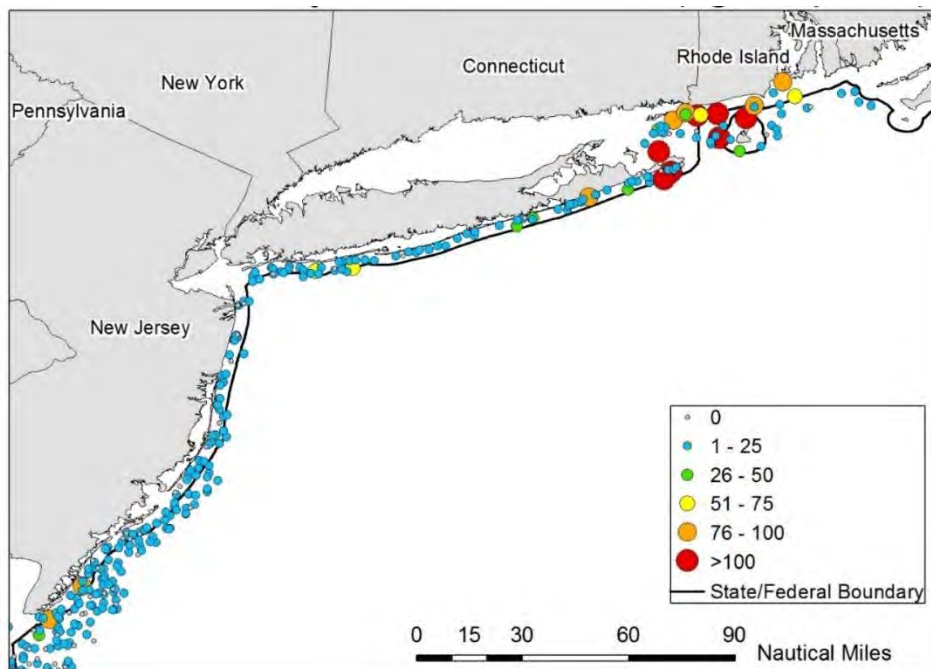


Figure 4: Scup catch per tow (in kg), May 1-15, 2011-2016, in the NEAMAP trawl survey off the states of Massachusetts through New Jersey.

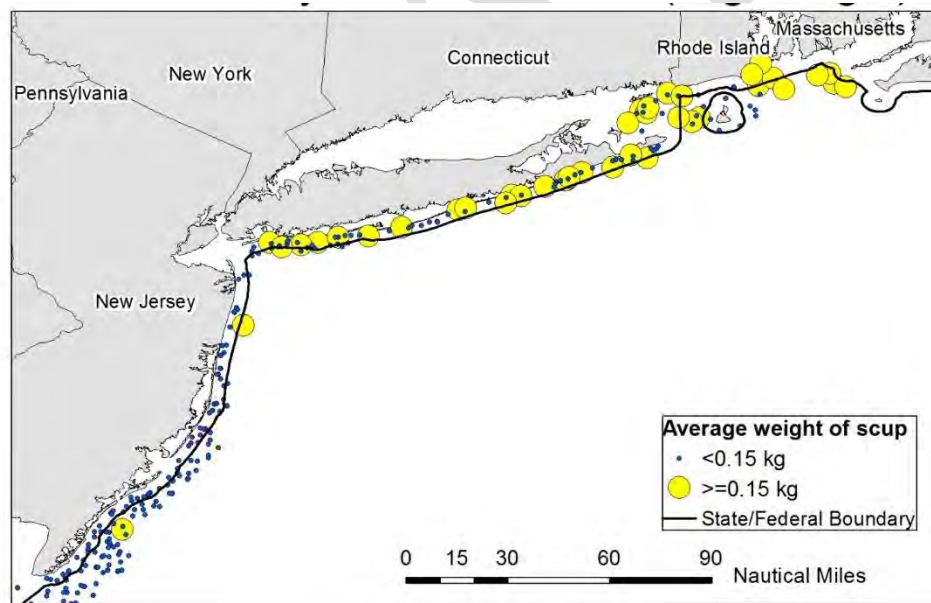


Figure 5: Average weight per scup in NEAMAP tows from Massachusetts through New Jersey, May 1-15, 2011-2016. Average weights are shown as those less than 0.15 kg and those greater than or equal to 0.15 kg, which is approximately the weight of a scup that has reached the commercial minimum size of nine inches total length (based on Morse 1978 and Hamer 1979).

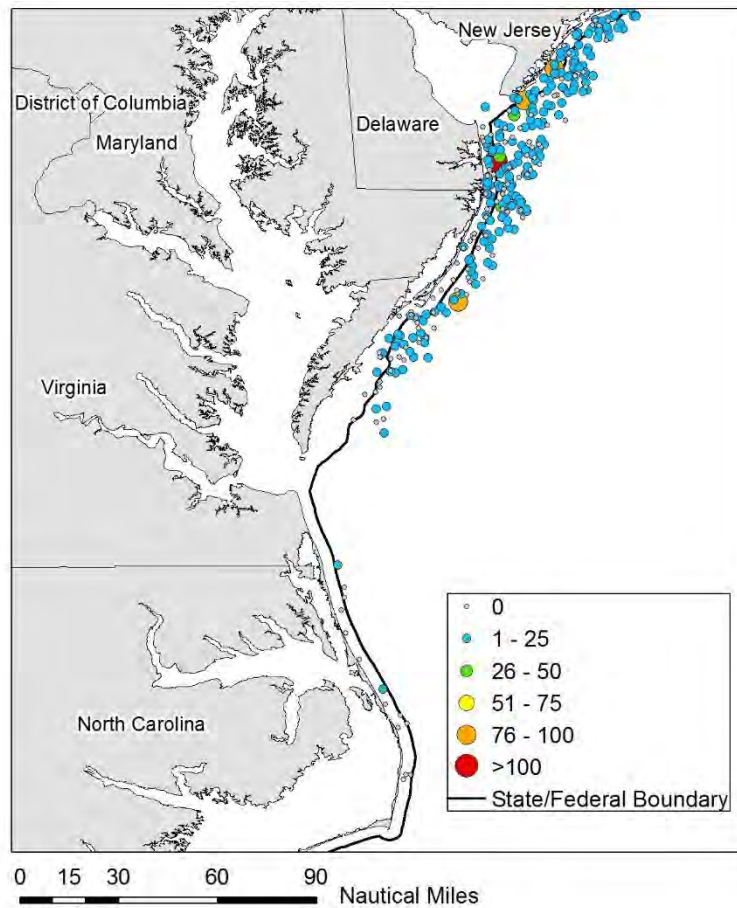


Figure 6: Scup catch per tow (in kg), May 1-15, 2011-2016, in the NEAMAP trawl survey off the states of Delaware through North Carolina. Average weight per scup is not shown in a separate figure as all average weights were below 0.15 kg, which is approximately the weight of a scup that has reached the commercial minimum size of nine inches total length (based on Morse 1978 and Hamer 1979).

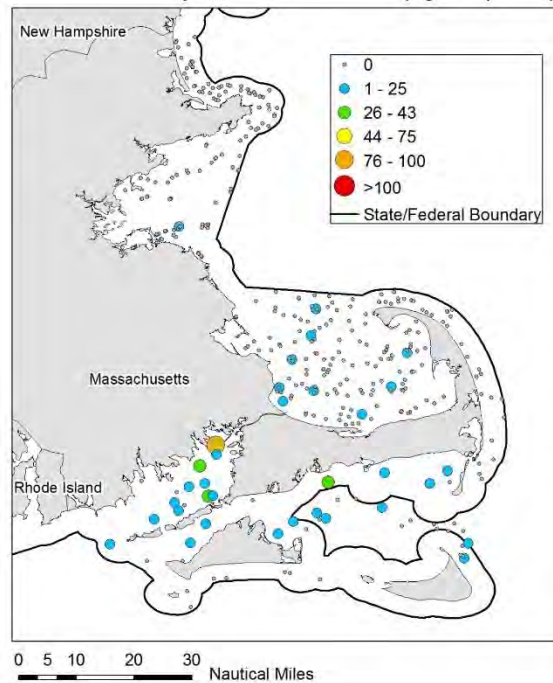


Figure 7: Scup catch per tow (in kg) in the MA DMF spring trawl survey, May 1 – 15, 2011-2016.

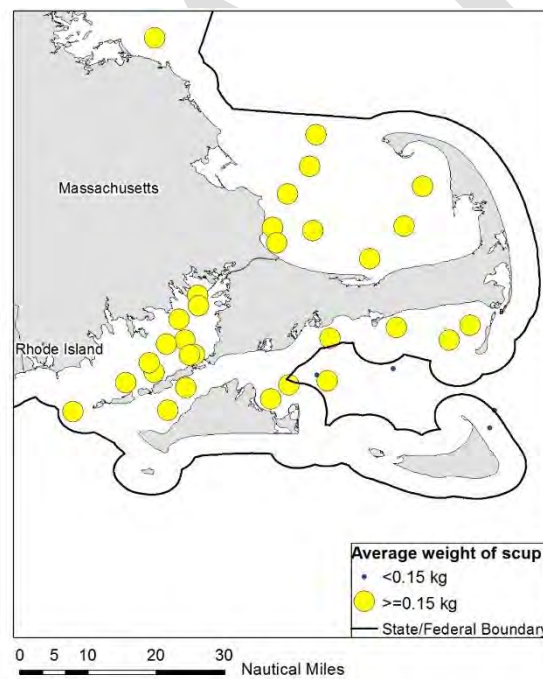


Figure 8: Average weight per scup in the MA DMF spring trawl survey, May 1 – 15, 2011-2016. Average weights are shown as those less than 0.15 kg and those greater than or equal to 0.15 kg, which is approximately the weight of a scup that has reached the commercial minimum size of nine inches total length (based on Morse 1978 and Hamer 1979).

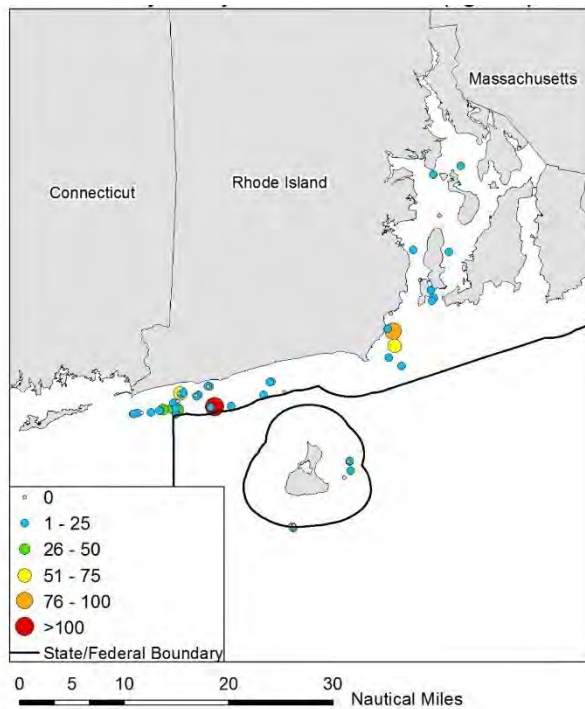


Figure 9: Scup catch per tow (in kg) in the RI DEM coastal fishery resource assessment trawl survey, May 1-15, 2011-2016.

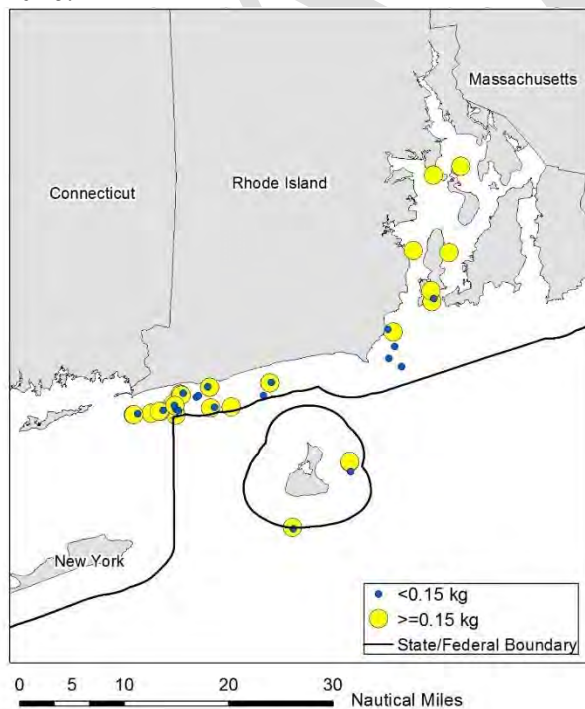


Figure 10: Average weight per scup in the RI DEM coastal fishery resource assessment trawl survey, May 1-15, 2011-2016. Average weights are shown as those less than 0.15 kg and those greater than or equal to 0.15 kg, which is approximately the weight of a scup that has reached the commercial minimum size of nine inches total length (based on Morse 1978 and Hamer 1979).

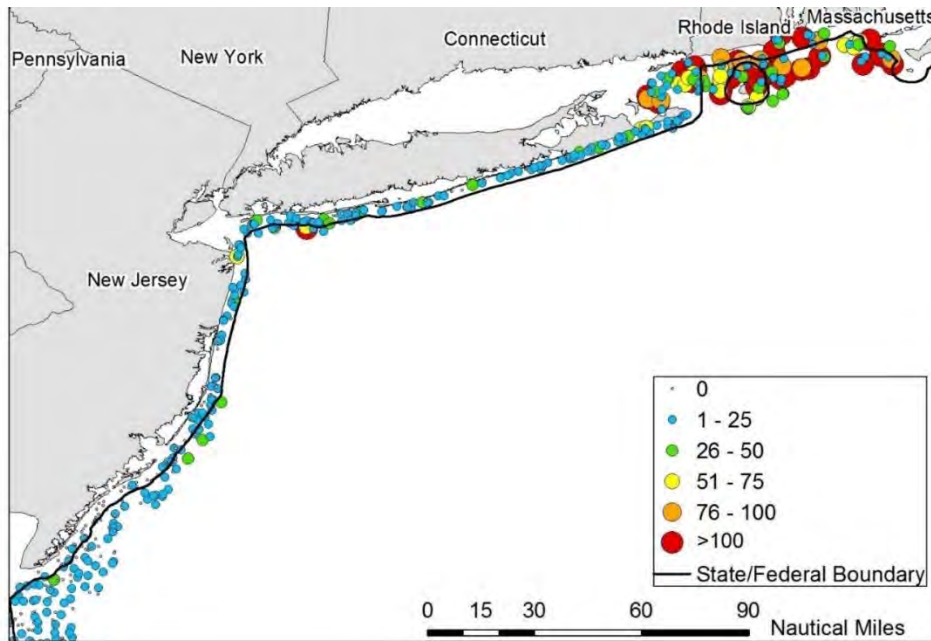


Figure 11: Scup catch per tow (in kg) in October, 2011-2016, in the NEAMAP trawl survey off the states of Massachusetts through New Jersey.

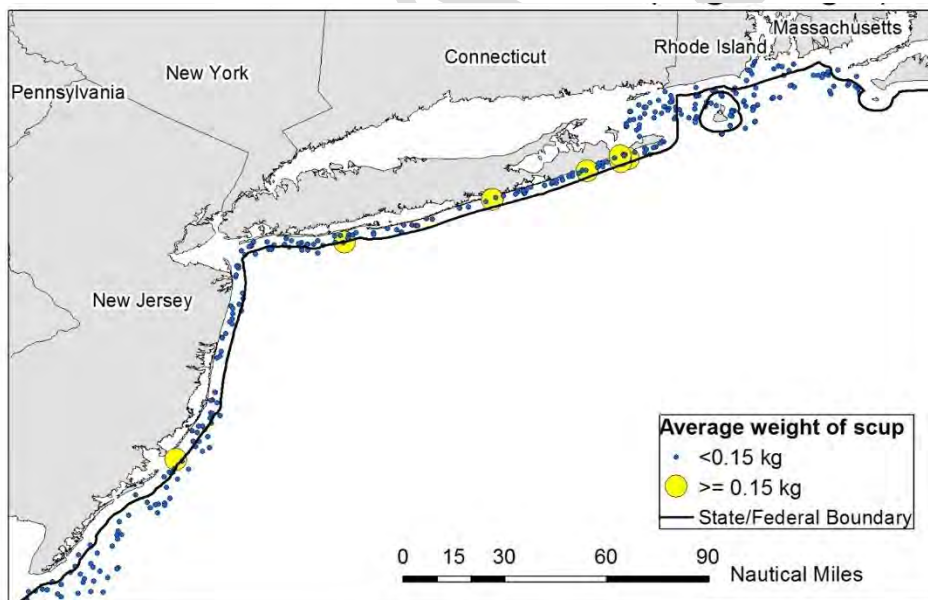


Figure 12: Average weight per scup in NEAMAP tows from Massachusetts through New Jersey, October, 2011-2016. Average weights are shown as those less than 0.15 kg and those greater than or equal to 0.15 kg, which is approximately the weight of a scup that has reached the commercial minimum size of nine inches total length (based on Morse 1978 and Hamer 1979).

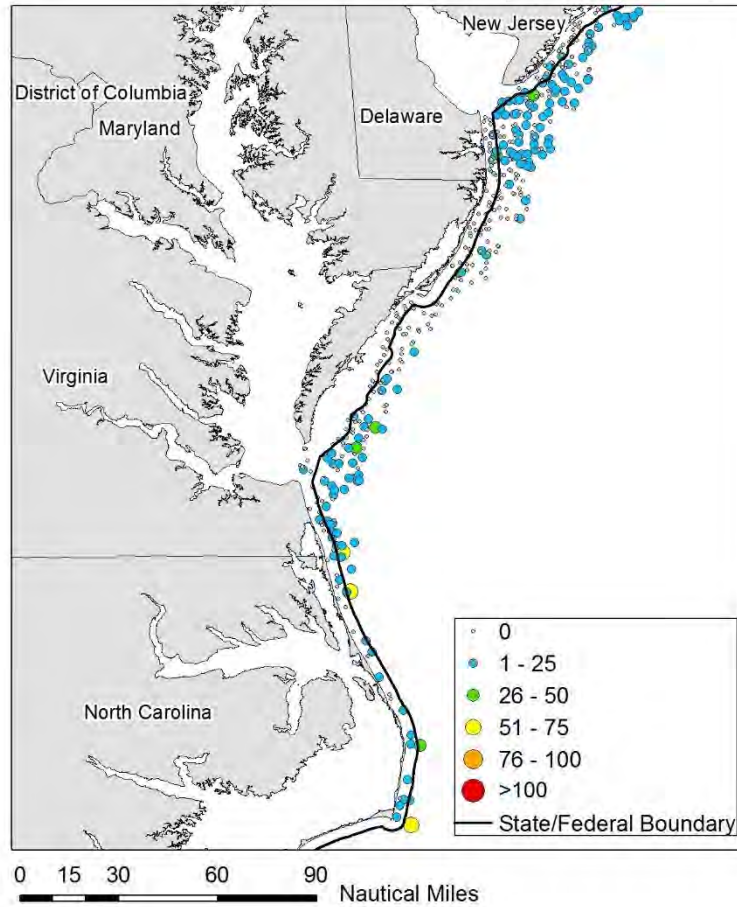


Figure 13: Scup catch per tow (in kg) in October, 2011-2016, in the NEAMAP trawl survey off the states of Delaware through North Carolina. Average weight per scup is not shown in a separate figure as all average weights were below 0.15 kg, which is approximately the weight of a scup that has reached the commercial minimum size of nine inches total length (based on Morse 1978 and Hamer 1979).

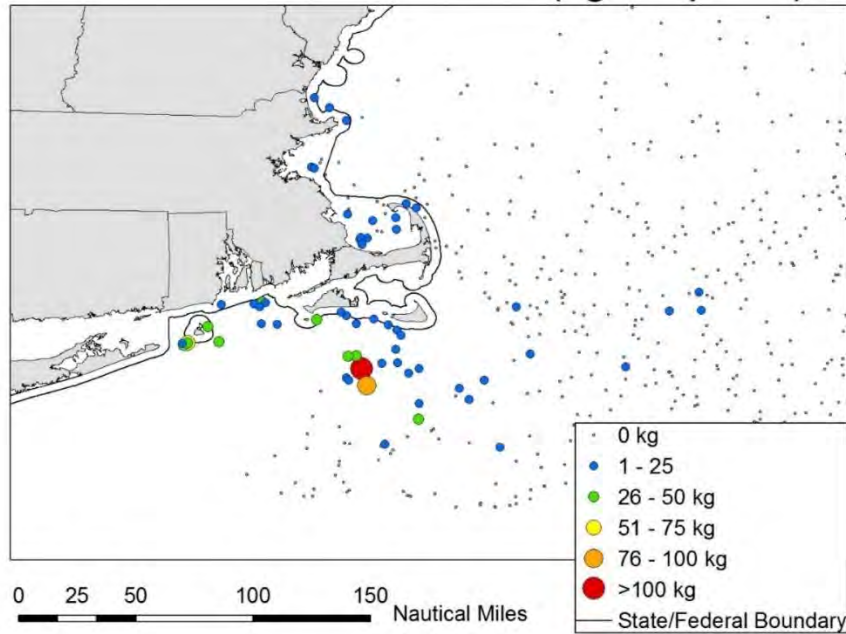


Figure 14: Scup catch per tow (in kg) in October, 2011-2015, in the NEFSC fall bottom trawl survey.

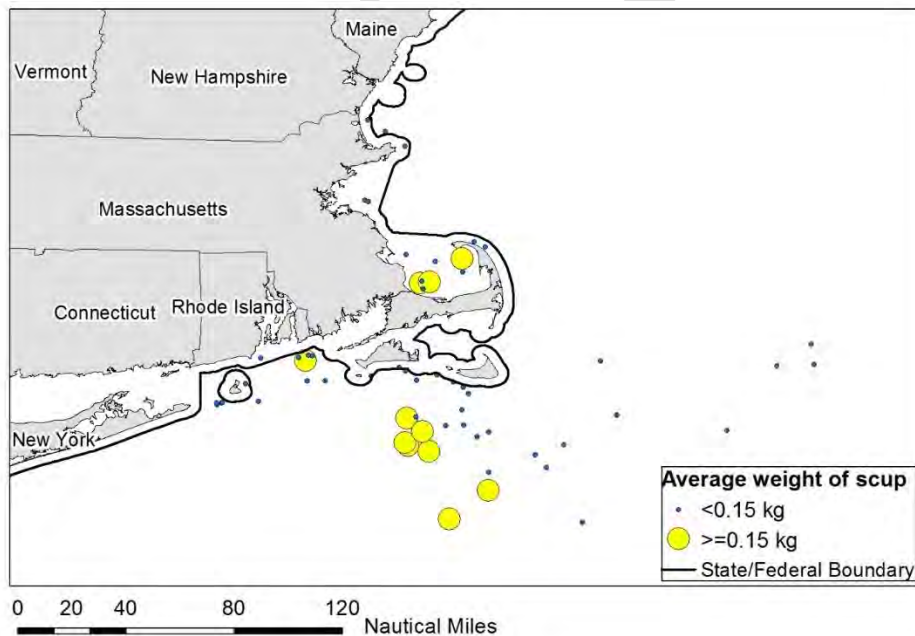


Figure 15: Average weight per scup in NEFSC fall bottom trawl survey tows, October, 2011-2015. Average weights are shown as those less than 0.15 kg and those greater than or equal to 0.15 kg, which is approximately the weight of a scup that has reached the commercial minimum size of nine inches total length (based on Morse 1978 and Hamer 1979).

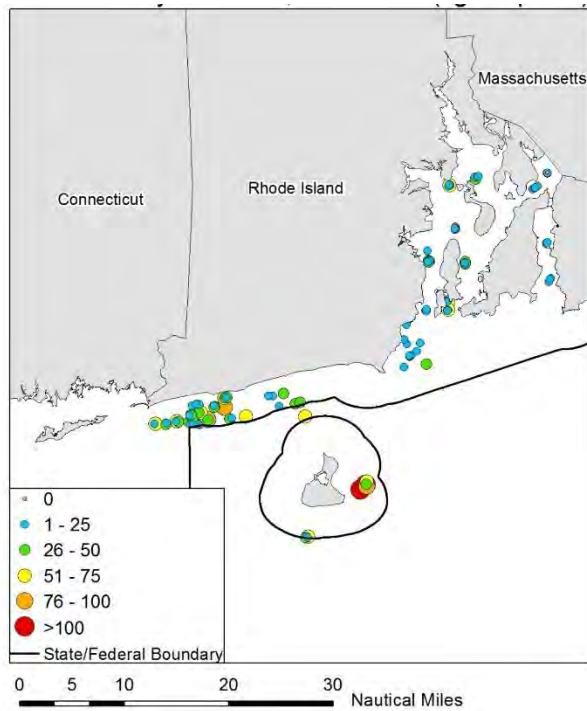


Figure 16: Scup catch per tow (in kg) in the RI DEM coastal fishery resource assessment trawl survey, during October, 2011-2016.

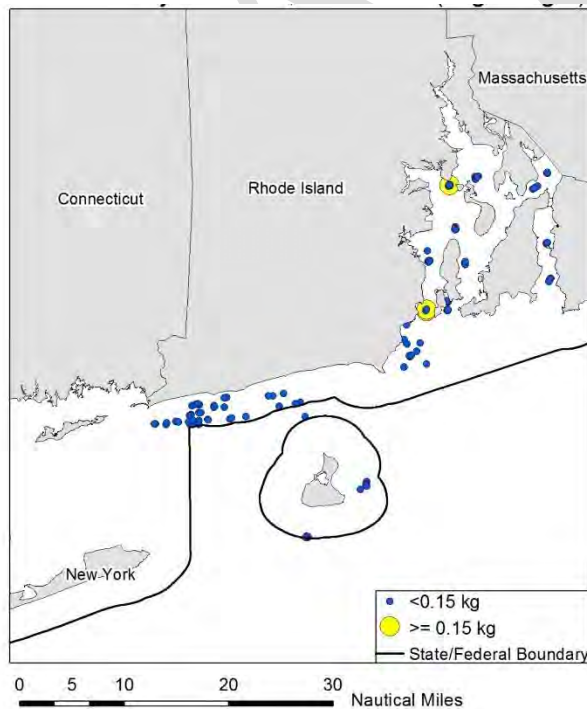


Figure 17: Average weight per scup in the RI DEM coastal fishery resource assessment trawl survey, October, 2011-2016. Average weights are shown as those less than 0.15 kg and those greater than or equal to 0.15 kg, which is approximately the weight of a scup that has reached the commercial minimum size of nine inches total length (based on Morse 1978 and Hamer 1979).

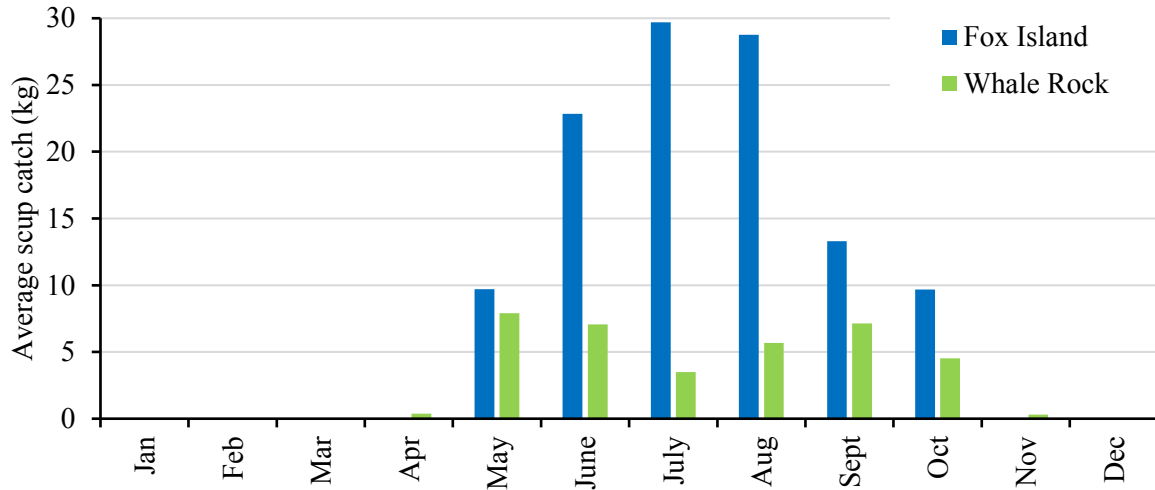


Figure 18: Average scup catch (in kg) by month in the URI GSO Narragansett Bay fish trawl survey, 2011-2015.

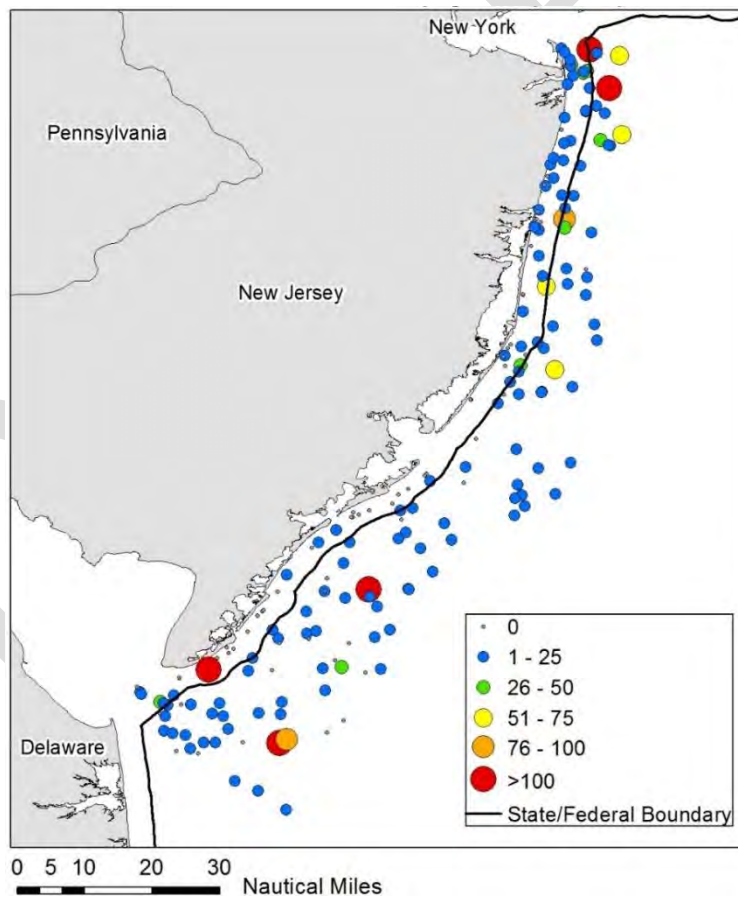


Figure 19: Scup catch per tow (in kg) in October, 2011-2015, in the New Jersey Ocean Trawl Survey.

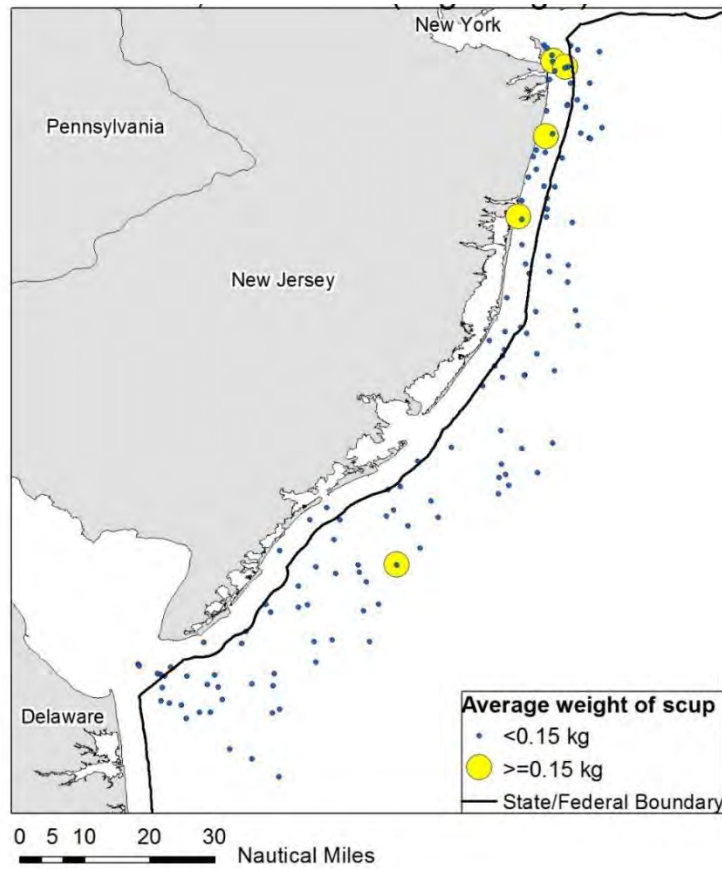


Figure 20: Average weight of scup caught in in the New Jersey Ocean Trawl Survey, October, 2011-2015. Average weights are shown as those less than 0.15 kg and those greater than or equal to 0.15 kg, which is approximately the weight of a scup that has reached the commercial minimum size of nine inches total length (based on Morse 1978 and Hamer 1979).

6.1.2. Non-Target Species

Non-target species are those species caught incidentally while targeting other species. Some non-target species are occasionally retained, others are commonly discarded.

Northeast Fisheries Observer Program (NEFOP) data from 2011-2015 indicate that spiny dogfish, little skate, black sea bass, summer flounder, longfin squid, butterfish, northern sea robin, winter skate, striped sea robin, and silver hake were the most commonly caught species on trips for which scup made up at least 75% of the landings (by weight; a proxy for directed scup trips). All these species, except northern and striped sea robins, are managed by the Mid-Atlantic or New England Fishery Management Councils. Northern and striped sea robins are not managed.

Management measures for the managed species include accountability measures (AMs) which address overages in annual catch limits (ACLs) through reductions in landings limits in following years. AMs for all these species, except *Illex* squid, take discards into account. These measures help to mitigate negative impacts from discards in the scup fishery, and other fisheries.

According to the most recent stock assessment information, spiny dogfish (NEFSC 2015a), little skate (NEFSC 2015c), black sea bass (NEFSC 2016c), butterfish (NEFSC 2014), and silver hake (NEFSC 2011) are not overfished and overfishing is not occurring. Overfishing is occurring for summer flounder (NEFSC 2016b) and winter skate (NEFSC 2015c), though neither stock is currently overfished. The overfishing status of longfin squid is unknown; however, the stock is not overfished and it appears to be lightly exploited (NEFSC 2010). Northern and striped sea robins have not been assessed, therefore their overfished and overfishing status is unknown.

6.2. Human Communities

Scup are commercially harvested year-round. The winter commercial fishery tends to occur offshore and the summer fishery occurs closer inshore, following seasonal patterns of scup movement (section 6.1.1). During the summer months, a greater number of vessels tend to land scup and those vessels tend to be smaller than during the winter months (Figure 21 and Figure 22). A moratorium permit is required to commercially harvest scup in Federal waters. In 2015, 650 vessels held scup moratorium permits.

During 2011-2015, most scup landed in commercial fisheries from Maine through North Carolina were caught with bottom otter trawls. Smaller amounts were caught with hand lines, pots/traps, pound nets, floating traps, sink gill nets, and dredges. A greater variety of gear types were used during the summer than during the winter (Figure 23). Bottom otter trawls accounted for at least 98% of the landings during the Winter I and Winter II periods, but only about 56% of landings during the Summer period during 2011-2015. Other gear types, such as hand lines, pots/traps, pound nets, and floating traps were more commonly used in the summer (Figure 23). The trends shown in Figure 23 were not consistent across every state. Commercial scup landings in Massachusetts, Connecticut, Rhode Island, and New York showed a similar pattern to that shown in Figure 23 (i.e. landings from a variety of gears in the summer and mostly from bottom trawls in the winter). Commercial landings in New Jersey, Maryland, Virginia, and North Carolina were predominantly from bottom trawl gear year-round.³

Over 2011-2015, average commercial scup landings per month were highest during April (Winter I, when a 30,000-50,000 pound possession limit was in effect, depending on the year) and lowest during July (Summer, when much lower possession limits were in effect [Table 4]). Average landings per month were about 1.62 million pounds during the Winter I quota period (January – April), about 1.22 million pounds during the Summer period (May – October), and about 1.17 million pounds during the Winter II period (November-December; Figure 24).

³ Gear types by quota period by state cannot be quantitatively summarized in a meaningful way due to the prevalence of confidential data representing fewer than three dealers and/or permit holders.

Many factors influence the price of scup. Price and landings are not directly correlated; however, in general, ex-vessel price tends to be lower when landings are higher (Figure 24 and Figure 25). On average, during 2011-2015, price was highest in July and December (\$0.83 per pound) and lowest in May (\$0.47 per pound; Figure 25).

At least 100,000 pounds of scup were landed at each of 16 ports in seven states in 2015. The ports with the highest commercial scup landings were Point Judith, Rhode Island; Montauk, New York; Point Pleasant, New Jersey; New Bedford, Massachusetts, and Little Compton, Connecticut. Table 6 shows average commercial scup landings by month by state over 2011-2015 as shown in commercial dealer data.

According to estimates from the Marine Recreational Information Program (MRIP), recreational fishermen from Maine through North Carolina landed an estimated 4.62 million pounds of scup in 2015 and took an estimated 461,840 trips for which scup was the primary target. An estimated 98% of recreational scup harvest occurred in state waters and 2% occurred in Federal waters.⁴ In 2015, 717 vessels held Federal party/charter permits for scup. Over 2013-2015, about one third of the recreational scup landings occurred in Massachusetts and an additional third occurred in New York. Rhode Island and Connecticut also had notable recreational scup landings. Other states accounted for 1% or less of the annual recreational landings. Across all states, recreational landings were approximately evenly divided between waves 3 (May-June), 4 (July-August), and 5 (September-October; Table 7).

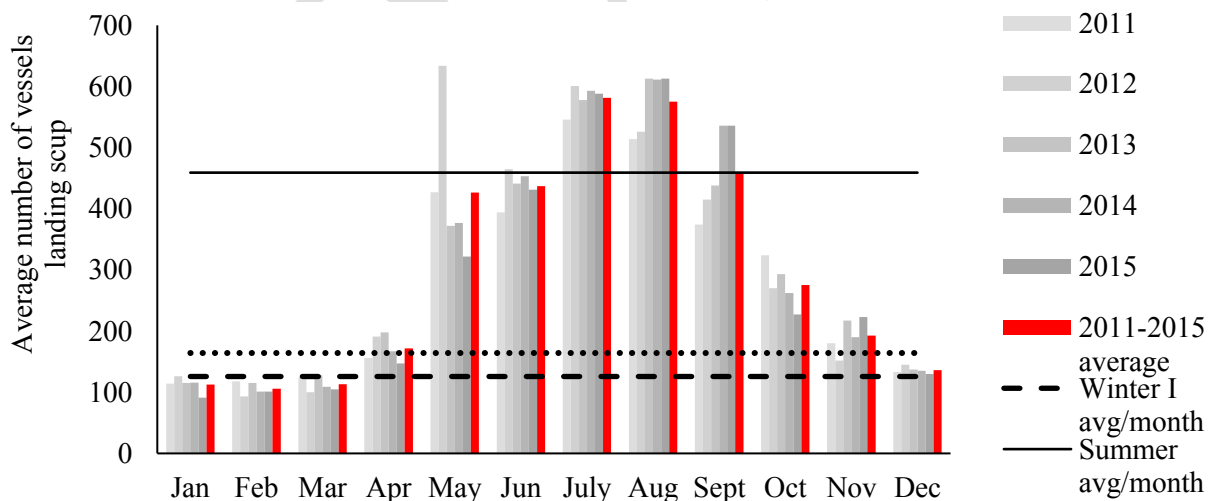


Figure 21: Number of commercial vessels which landed scup per month, 2011-2015 shown with average number of vessels per month during the Winter I (January – April), Summer (May-October), and Winter II (November and December) quota periods. Number of vessels was determined using a combination of permit number and hull number, as shown in dealer data. Vessels with an unknown permit number and an unknown hull number are not shown.

⁴ MRIP estimates downloaded January 11, 2017.

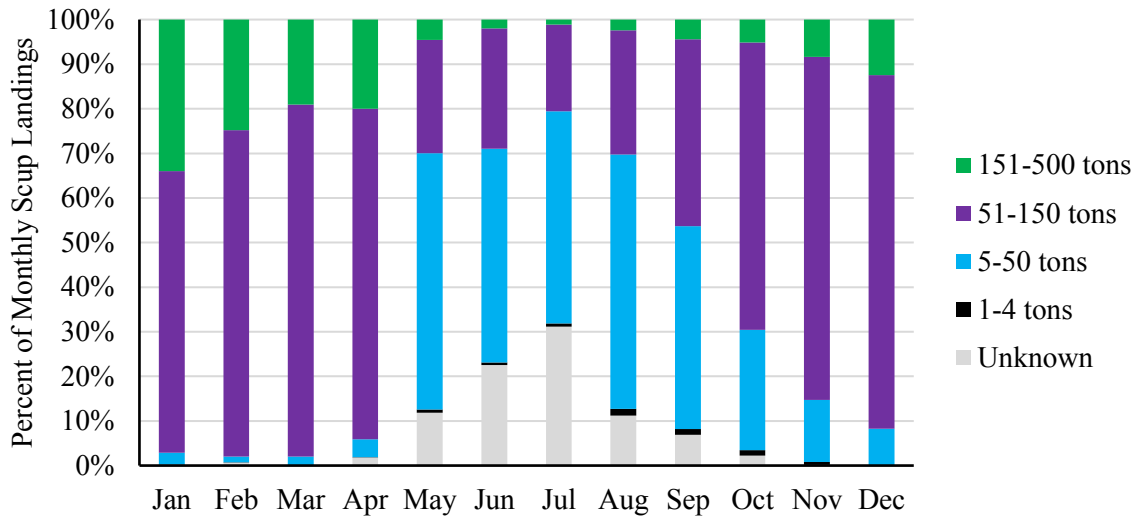


Figure 22: Average scup landings by month by vessel ton class, 2011-2015. Data for vessels greater than 500 tons are confidential and are not shown.

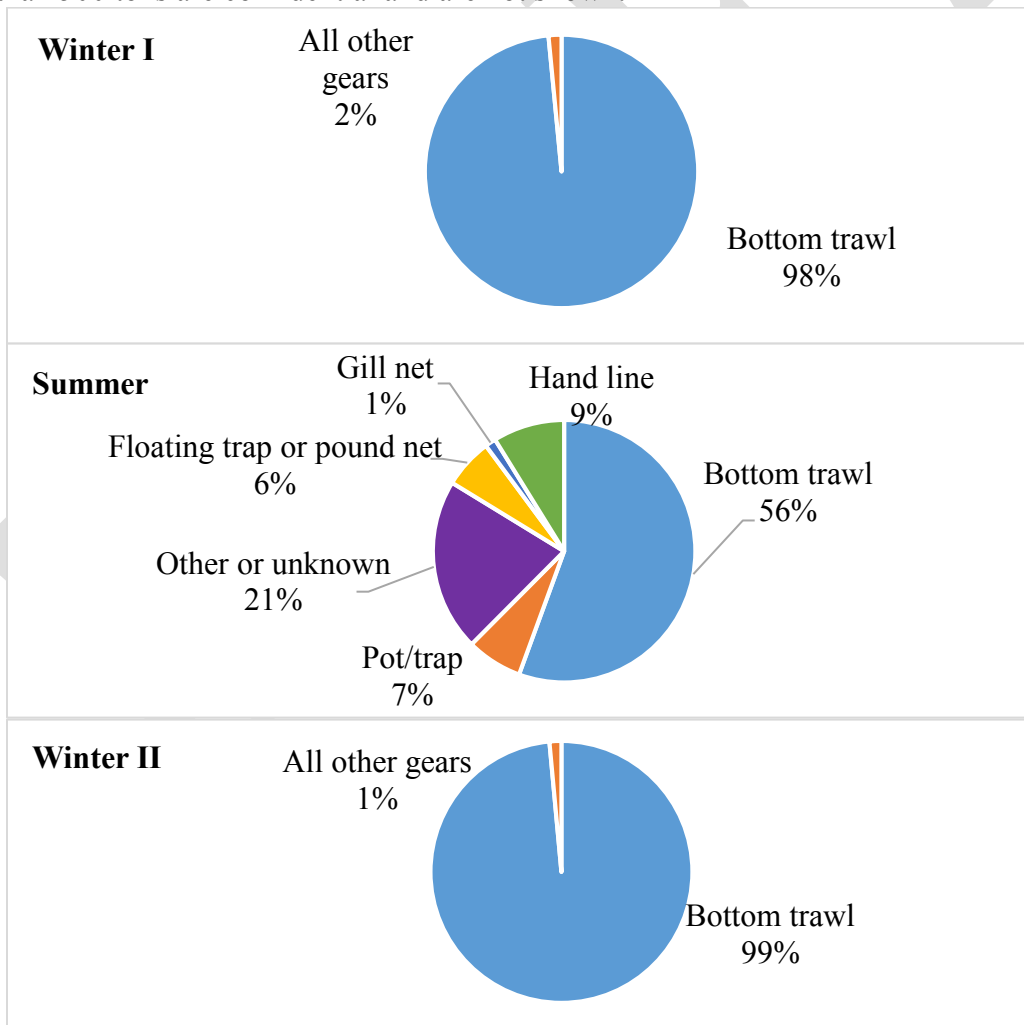


Figure 23: Scup landings by gear type and quota period, Maine through North Carolina, 2011-2015.

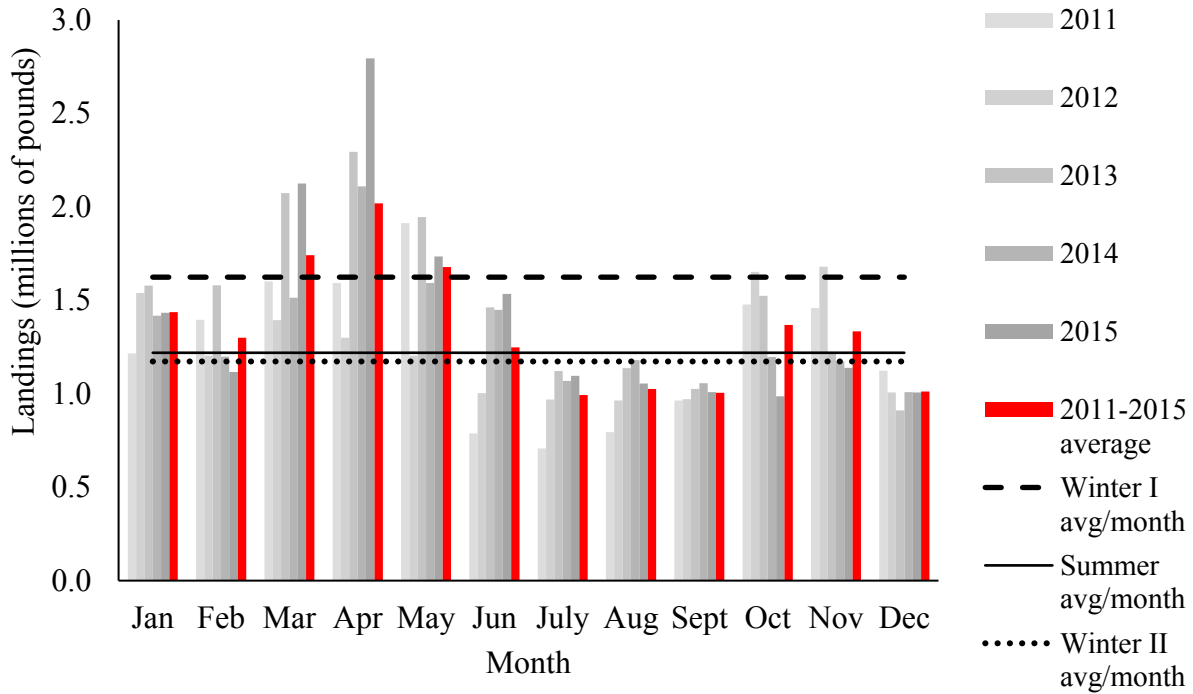


Figure 24: Commercial scup landings per month, 2011-2015, shown with average landings per month during the Winter I (January – April), Summer (May – October), and Winter II (November and December) quota periods.

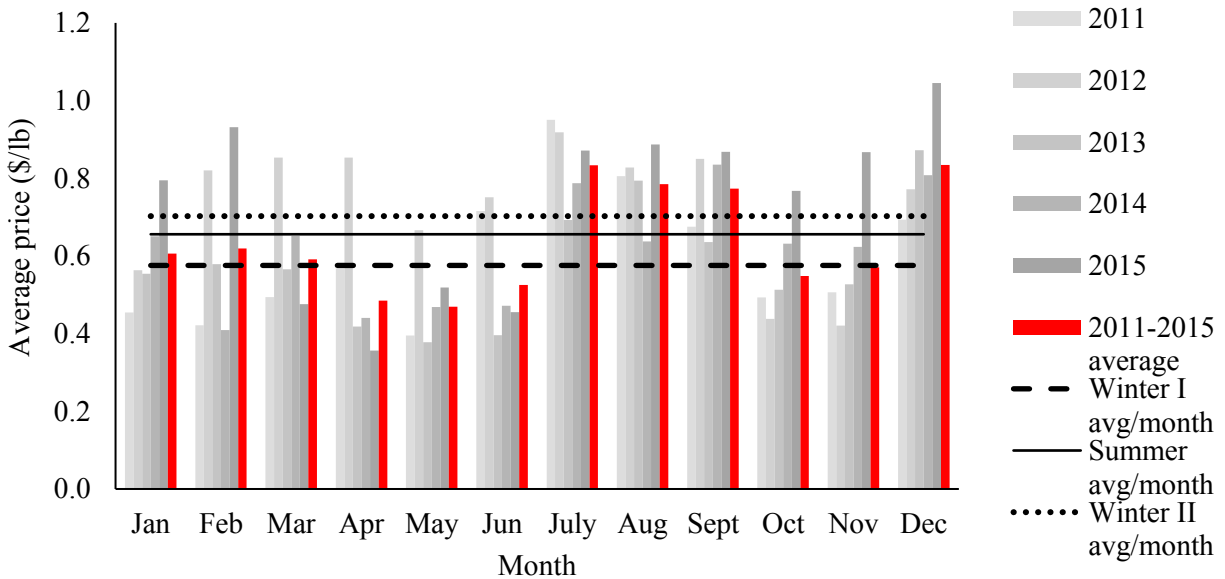


Figure 25: Average scup price per month, 2011-2015 shown with average price per month during the Winter I (January – April), Summer (May-October), and Winter II (November and December) quota periods.

Table 6: Percent of annual commercial scup landings in each state from Massachusetts through North Carolina by month, 2011-2015. C refers to confidential data representing fewer than three vessels and/or dealers.

| | MA | CT | RI | NY | NJ | DE | MD | VA | NC |
|------------|-----|-----|-----|-----|-----|----|-----|-----|-----|
| Jan | 13% | 15% | 3% | 9% | 19% | 0% | 22% | 11% | 11% |
| Feb | 5% | 14% | 4% | 6% | 19% | 0% | 25% | 9% | 75% |
| Mar | 3% | 12% | 7% | 10% | 20% | 0% | 30% | 39% | 1% |
| Apr | 3% | 17% | 7% | 16% | 23% | 0% | 21% | 24% | 7% |
| May | 16% | 3% | 15% | 10% | 1% | C | 0% | 1% | 0% |
| Jun | 6% | 6% | 10% | 11% | 1% | 0% | 0% | C | 0% |
| Jul | 23% | 5% | 7% | 4% | 0% | 0% | 0% | C | 0% |
| Aug | 21% | 4% | 9% | 3% | 0% | 0% | 0% | 0% | 0% |
| Sep | 6% | 3% | 11% | 3% | 1% | C | 0% | 0% | 0% |
| Oct | 2% | 6% | 14% | 7% | 2% | C | 0% | 1% | 0% |
| Nov | 2% | 7% | 9% | 12% | 6% | C | 0% | 6% | 0% |
| Dec | 2% | 7% | 5% | 9% | 8% | C | 2% | 8% | 6% |

Table 7: Percent of annual recreational landings by wave and by state, 2013-2015. (Source: MRIP data, downloaded January 11, 2017). MRIP does not operate during wave 1 (January – February) in the states of Massachusetts through Virginia. MRIP estimates for wave 1, 2013-2015 in North Carolina showed no scup landings. No states had estimates of scup landings during wave 2 (March-April).

| State | May/June | July/Aug | Sept/Oct | Nov/Dec | Coastwide Annual Landings |
|----------------|------------|------------|------------|-----------|---------------------------|
| MASSACHUSETTS | 73% | 15% | 11% | 0% | 35% |
| RHODE ISLAND | 16% | 44% | 40% | 0% | 17% |
| CONNECTICUT | 10% | 42% | 48% | 0% | 15% |
| NEW YORK | 9% | 46% | 44% | 2% | 32% |
| NEW JERSEY | 0% | 27% | 73% | 0% | 1% |
| DELAWARE | 7% | 4% | 0% | 89% | 0% |
| MARYLAND | 0% | 0% | 3% | 97% | 0% |
| VIRGINIA | 0% | 35% | 65% | 0% | 0% |
| NORTH CAROLINA | 40% | 16% | 39% | 5% | 0% |
| Total | 32% | 34% | 33% | 1% | |

6.3. Protected Species

Protected species are those species afforded protections under the Endangered Species Act (ESA; i.e. species listed as threatened or endangered under the ESA) and/or the Marine Mammal Protection Act (MMPA). Multiple protected species occur within the scup management unit.

[To be completed.]

6.4. Physical Habitat

The physical, chemical, biological, and geological components of benthic and pelagic environments are important aspects of habitat for marine species and have implications for reproduction, growth, and survival of marine species. The following sections briefly describe key aspects of physical habitats which may be impacted by the alternatives considered in this document. This information is largely drawn from Stevenson et al. (2004), unless otherwise noted.

6.4.1. Physical Environment

Scup inhabit the northeast U.S. shelf ecosystem, which includes the area from the Gulf of Maine south to Cape Hatteras, extending seaward from the coast to the edge of the continental shelf, including the slope sea offshore to the Gulf Stream. The northeast shelf ecosystem includes the Gulf of Maine, Georges Bank, the Mid-Atlantic Bight, and the continental slope.

The Gulf of Maine is an enclosed coastal sea, characterized by relatively cold waters and deep basins, with a patchwork of various sediment types.

Georges Bank is a relatively shallow coastal plateau that slopes gently from north to south and has steep submarine canyons on its eastern and southeastern edge. It is characterized by highly productive, well-mixed waters and strong currents.

The Mid-Atlantic Bight is comprised of the sandy, relatively flat, gently sloping continental shelf from southern New England to Cape Hatteras, North Carolina.

The continental slope begins at the continental shelf break and continues eastward with increasing depth until it becomes the continental rise. It is fairly homogenous, with exceptions at the shelf break, some of the canyons, the Hudson Shelf Valley, and in areas of glacially rafted hard bottom. The continental shelf in this region was shaped largely by sea level fluctuations caused by past ice ages. The shelf's basic morphology and sediments derive from the retreat of the last ice sheet and the subsequent rise in sea level. Currents and waves have since modified this basic structure.

Shelf and slope waters of the Mid-Atlantic Bight have a slow southwestward flow that is occasionally interrupted by warm core rings or meanders from the Gulf Stream. On average, shelf water moves parallel to bathymetry isobars at speeds of 5 - 10 cm/s at the surface and 2

cm/s or less at the bottom. Storm events can cause much more energetic variations in flow. Tidal currents on the inner shelf have a higher flow rate of 20 cm/s that increases to 100 cm/s near inlets.

The shelf slopes gently from shore out to between 100 and 200 km offshore where it transforms to the slope (100 - 200 m water depth) at the shelf break. Numerous canyons incise the slope and some cut up onto the shelf itself. The primary morphological features of the shelf include shelf valleys and channels, shoal massifs, scarps, and sand ridges and swales. Most of these structures are relic except for some sand ridges and smaller sand-formed features. Shelf valleys and slope canyons were formed by rivers of glacier outwash that deposited sediments on the outer shelf edge as they entered the ocean. Most valleys cut about 10 m into the shelf; however, the Hudson Shelf Valley is about 35 m deep. The valleys were partially filled as the glacier melted and retreated across the shelf. The glacier also left behind a lengthy scarp near the shelf break from Chesapeake Bay north to the eastern end of Long Island. Shoal retreat massifs were produced by extensive deposition at a cape or estuary mouth. Massifs were also formed as estuaries retreated across the shelf.

Some sand ridges are more modern in origin than the shelf's glaciated morphology. Their formation is not well understood; however, they appear to develop from the sediments that erode from the shore face. They maintain their shape, so it is assumed that they are in equilibrium with modern current and storm regimes. They are usually grouped, with heights of about 10 m, lengths of 10 - 50 km and spacing of 2 km. Ridges are usually oriented at a slight angle towards shore, running in length from northeast to southwest. The seaward face usually has the steepest slope. Sand ridges are often covered with smaller similar forms such as sand waves, megaripples, and ripples. Swales occur between sand ridges. Since ridges are higher than the adjacent swales, they are exposed to more energy from water currents and experience more sediment mobility than swales. Ridges tend to contain less fine sand, silt and clay while relatively sheltered swales contain more of the finer particles. Swales have greater benthic macrofaunal density, species richness and biomass, due in part to the increased abundance of detrital food and the less physically rigorous conditions.

Sand waves are usually found in patches of 5 - 10 with heights of about 2 m, lengths of 50 - 100 m and 1 - 2 km between patches. Sand waves are primarily found on the inner shelf, and often observed on sides of sand ridges. They may remain intact over several seasons. Megaripples occur on sand waves or separately on the inner or central shelf. During the winter storm season, they may cover as much as 15% of the inner shelf. They tend to form in large patches and usually have lengths of 3 - 5 m with heights of 0.5 - 1 m. Megaripples tend to survive for less than a season. They can form during a storm and reshape the upper 50 - 100 cm of the sediments within a few hours. Ripples are also found everywhere on the shelf and appear or disappear within hours or days, depending upon storms and currents. Ripples usually have lengths of about 1 - 150 cm and heights of a few centimeters.

Sediments are uniformly distributed over the shelf in this region. A sheet of sand and gravel varying in thickness from 0 - 10 m covers most of the shelf. The mean bottom flow from the constant southwesterly current is not fast enough to move sand, so sediment transport must be episodic. Net sediment movement is in the same southwesterly direction as the current. The sands are mostly medium to coarse grains, with finer sand in the Hudson Shelf Valley and on the outer shelf. Mud is rare over most of the shelf, but is common in the Hudson Shelf Valley. Occasionally relic estuarine mud deposits are re-exposed in the swales between sand ridges. Fine sediment content increases rapidly at the shelf break, which is sometimes called the “mud line,” and sediments are 70 - 100% fine on the slope. On the slope, silty sand, silt, and clay predominate (Stevenson et al. 2004).

Greene et al. (2010) identified and described Ecological Marine Units (EMUs) in New England and the Mid-Atlantic based on sediment type, seabed form (a combination of slope and relative depth)⁵, and benthic organisms.⁶ According to this classification scheme, the sediment composition off New England and the Mid-Atlantic is about 68% sand, 26% gravel, and 6% silt/mud. The seafloor is classified as about 52% flat, 26% depression, 19% slope, and 3% steep (Table 8).

Artificial reefs are another significant Mid-Atlantic habitat. These localized areas of hard structure were formed by shipwrecks, lost cargoes, disposed solid materials, shoreline jetties and groins, submerged pipelines, cables, and other materials (Steimle and Zetlin 2000). Some of these materials were deposited specifically for use as fish habitat, but most have an alternative primary purpose; however, they have all become an integral part of the coastal and shelf ecosystem. In general, reefs are important for attachment sites, shelter, and food for many species. Fish predators may be attracted by prey aggregations or may be behaviorally attracted to the reef structure.

Like all the world's oceans, the western North Atlantic is experiencing changes to the physical environment due to global climate change. These changes include warming temperatures; sea level rise; ocean acidification; changes in stream flow, ocean circulation, and sediment deposition; and increased frequency, intensity and duration of extreme climate events. These changes in physical habitat can impact the metabolic rate and other biological processes of marine species. As such, these changes have implications for the distribution and productivity of marine species. Several studies demonstrate that the distribution and productivity of several species in the Mid-Atlantic have changed over time, likely due to changes in physical habitat conditions such as temperature (e.g. Weinberg 2005, Lucey and Nye 2010, Nye et al. 2011, Pinsky et al. 2013, Gaichas et al. 2015).

⁵ Seabed form contains the categories of depression, mid flat, high flat, low slope, side slope, high slope, and steep slope.

⁶ See Greene et al. 2010 for a description of the methodology used to define EMUs.

Table 8: Composition of Ecological Marine Units (EMUs) off New England and the Mid-Atlantic (Greene et al. 2010). EMUs which account for less than 1% of the surface area of these regions are not shown.

| Ecological Marine Unit | Percent Coverage |
|--------------------------------|-------------------------|
| High Flat Sand | 13% |
| Moderate Flat Sand | 10% |
| High Flat Gravel | 8% |
| Side Slope Sand | 6% |
| Somewhat Deep Flat Sand | 5% |
| Low Slope Sand | 5% |
| Moderate Depression Sand | 4% |
| Very Shallow Flat Sand | 4% |
| Side Slope Silt/Mud | 4% |
| Moderate Flat Gravel | 4% |
| Deeper Depression Sand | 4% |
| Shallow Depression Sand | 3% |
| Very Shallow Depression Sand | 3% |
| Deeper Depression Gravel | 3% |
| Shallow Flat Sand | 3% |
| Steep Sand | 3% |
| Side Slope Gravel | 3% |
| High Flat Silt/Mud | 2% |
| Shallow Depression Gravel | 2% |
| Low Slope Gravel | 2% |
| Moderate Depression Gravel | 2% |
| Somewhat Deep Depression Sand | 2% |
| Deeper Flat Sand | 1% |
| Shallow Flat Gravel | 1% |
| Deep Depression Gravel | 1% |
| Deepest Depression Sand | 1% |
| Very Shallow Depression Gravel | 1% |

6.4.2. Essential Fish Habitat (EFH)

The Magnuson-Stevens Fishery Conservation and Management Act (MSA) defines EFH as “those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity” (MSA section 3). The MSA requires that Councils describe and identify EFH for managed species and “minimize to the extent practicable adverse effects on such habitat caused by fishing, and identify other actions to encourage the conservation and enhancement of such habitat” (MSA section 303 (a)(7)).

The broad definition of EFH has led the Mid-Atlantic and the New England Fishery Management Councils to identify EFH throughout most of the Northeast U.S. Shelf Ecosystem, ranging from areas out to the shelf break to wetlands, streams, and rivers. Table 9 summarizes EFH in the northeast shelf ecosystem for federally-managed species and lifestages that are vulnerable to bottom tending fishing gear.

Table 9: Essential Fish Habitat descriptions for federally-managed species/life stages that are vulnerable to bottom tending fishing gear in the U.S. northeast shelf ecosystem.

| Species | Life Stage | Geographic Area of EFH | Depth (meters) | Bottom Type |
|-----------------|--------------------|---|---------------------|---|
| American plaice | juvenile | GOM, including estuaries from Passamaquoddy Bay to Saco Bay, ME and from Massachusetts Bay to Cape Cod Bay | 45 - 150 | Fine grained sediments, sand, or gravel |
| American plaice | adult | GOM, including estuaries from Passamaquoddy Bay to Saco Bay, ME and from Massachusetts Bay to Cape Cod Bay | 45 - 175 | Fine grained sediments, sand, or gravel |
| Atlantic cod | juvenile | GOM, GB, eastern portion of continental shelf off SNE, these estuaries: Passamaquoddy Bay to Saco Bay, Massachusetts Bay, Boston Harbor, Cape Cod Bay, Buzzards Bay | 25 - 75 | Cobble or gravel |
| Atlantic cod | adult | GOM, GB, eastern portion of continental shelf off SNE, these estuaries: Passamaquoddy Bay to Saco Bay, Massachusetts Bay, Boston Harbor, Cape Cod Bay, Buzzards Bay | 10 - 150 | Rocks, pebbles, or gravel |
| Atl halibut | juvenile | GOM and GB | 20 - 60 | Sand, gravel, or clay |
| Atl halibut | adult | GOM and GB | 100 - 700 | Sand, gravel, or clay |
| Barndoor skate | juvenile/ adult | Eastern GOM, GB, SNE, Mid-Atlantic Bight to Hudson Canyon | 10-750, most < 150 | Mud, gravel, and sand |
| Black sea bass | juvenile | GOM to Cape Hatteras, NC, including estuaries from Buzzards Bay to Long Island Sound, Gardiners Bay, Barnegat Bay to Chesapeake Bay, Tangier/ Pocomoke Sound, and James River | 1 - 38 | Rough bottom, shellfish/ eelgrass beds, manmade structures, offshore clam beds, and shell patches |
| Black sea bass | adult | GOM to Cape Hatteras, NC, including Buzzards Bay, Narragansett Bay, Gardiners Bay, Great South Bay, Barnegat Bay to Chesapeake Bay, and James River | 20 - 50 | Structured habitats (natural and manmade), sand and shell substrates preferred |
| Clearnose skate | juvenile/ adult | GOM, along continental shelf to Cape Hatteras, NC, including the estuaries from Hudson River/Raritan Bay south to the Chesapeake Bay mainstem | 0 – 500, most < 111 | Soft bottom and rocky or gravelly bottom |
| Haddock | juvenile | GB, GOM, and Mid-Atlantic south to Delaware Bay | 35 - 100 | Pebble and gravel |
| Haddock | adult | GB, eastern side of Nantucket Shoals, and throughout GOM | 40 - 150 | Broken ground, pebbles, smooth hard sand, and smooth areas between rocky patches |
| Little skate | juvenile/ adult | GB through Mid-Atlantic Bight to Cape Hatteras, NC; includes estuaries from Buzzards Bay south to mainstem Chesapeake Bay | 0-137, most 73 - 91 | Sandy or gravelly substrate or mud |

| Species | Life Stage | Geographic Area of EFH | Depth (meters) | Bottom Type |
|-----------------|--------------------|---|---------------------------------|--|
| Ocean pout | eggs | GOM, GB, SNE, and Mid-Atlantic south to Delaware Bay, including the following estuaries: Passamaquoddy Bay to Saco Bay, Massachusetts Bay and Cape Cod Bay | <50 | Generally sheltered nests in hard bottom in holes or crevices |
| Ocean pout | juvenile | GOM, GB, SNE, Mid-Atlantic south to Delaware Bay and the following estuaries: Passamaquoddy Bay to Saco Bay, Massachusetts Bay, and Cape Cod Bay | < 50 | Close proximity to hard bottom nesting areas |
| Ocean pout | adult | GOM, GB, SNE, Mid-Atlantic south to Delaware Bay and the following estuaries: Passamaquoddy Bay to Saco Bay, MA Bay, Boston Harbor, and Cape Cod Bay | < 80 | Smooth bottom near rocks or algae |
| Pollock | adult | GOME, GB, SNE, and Mid-Atlantic south to New Jersey and the following estuaries: Passamaquoddy Bay, Damariscotta R., MA Bay, Cape Cod Bay, Long Island Sound | 15 – 365 | Hard bottom habitats including artificial reefs |
| Red hake | juvenile | GOM, GB, continental shelf off SNE, and Mid-Atlantic south to Cape Hatteras, including the following estuaries: Passamaquoddy Bay to Saco Bay, Great Bay, MA Bay to Cape Cod Bay; Buzzards Bay to CT River, Hudson River, Raritan Bay, and Chesapeake Bay | < 100 | Shell fragments, including areas with an abundance of live scallops |
| Red hake | adult | GOM, GB, continental shelf off SNE, Mid-Atlantic south to Cape Hatteras, these estuaries: Passamaquoddy Bay to Saco Bay, Great Bay, MA Bay to Cape Cod Bay; Buzzards Bay to CT River, Hudson River, Raritan Bay, Delaware Bay, and Chesapeake Bay | 10 - 130 | In sand and mud, in depressions |
| Redfish | juvenile | GOM, southern edge of GB | 25 - 400 | Silt, mud, or hard bottom |
| Redfish | adult | GOM, southern edge of GB | 50 - 350 | Silt, mud, or hard bottom |
| Rosette skate | juvenile/ adult | Nantucket shoals and southern edge of GB to Cape Hatteras, NC | 33-530, most 74-274 | Soft substrate, including sand/mud bottoms |
| Scup | juvenile/adult | GOM to Cape Hatteras, NC, including the following estuaries: MA Bay, Cape Cod Bay to Long Island Sound, Gardiners Bay to Delaware inland bays, and Chesapeake Bay | 0-38 for juv 2-185 for adult | Demersal waters north of Cape Hatteras and inshore estuaries (various substrate types) |
| Silver hake | juvenile | GOM, GB, continental shelf off SNE, Mid-Atlantic south to Cape Hatteras and the following estuaries: Passamaquoddy Bay to Casco Bay, ME, MA Bay to Cape Cod Bay | 20 – 270 | All substrate types |
| Summer Flounder | juvenile/adult | GOM to Florida – estuarine and over continental shelf to shelf break | 0-250 | Demersal/estuarine waters, varied substrates. Mostly inshore in summer and offshore in winter. |
| Smooth skate | juvenile/ adult | Offshore banks of GOM | 31–874, most 110- 457 | Soft mud (silt and clay), sand, broken shells, gravel and pebbles |

| Species | Life Stage | Geographic Area of EFH | Depth (meters) | Bottom Type |
|---------------------|--------------------|---|------------------------------|---|
| Thorny skate | juvenile/ adult | GOM and GB | 18-2000, most 111- 366 | Sand, gravel, broken shell, pebbles, and soft mud |
| Tilefish | juvenile/ adult | Outer continental shelf and slope from the U.S./Canadian boundary to the Virginia/North Carolina boundary | 100 - 300 | Burrows in clay (some may be semi-hardened into rock) |
| White hake | juvenile | GOM, southern edge of GB, SNE to Mid-Atlantic and the following estuaries: Passamaquoddy Bay, ME to Great Bay, NH, Massachusetts Bay to Cape Cod Bay | 5 - 225 | Seagrass beds, mud, or fine grained sand |
| Winter flounder | adult | GB, inshore areas of GOM, SNE, Mid- Atlantic south to Delaware Bay and the estuaries from Passamaquoddy Bay, ME to Chincoteague Bay, VA | 1 - 100 | Mud, sand, and gravel |
| Winter skate | juvenile/ adult | Cape Cod Bay, GB, SNE shelf through Mid-Atlantic Bight to North Carolina; includes the estuaries from Buzzards Bay south to the Chesapeake Bay mainstem | 0 - 371, most < 111 | Sand and gravel or mud |
| Witch flounder | juvenile | GOM, outer continental shelf from GB south to Cape Hatteras | 50 - 450 to 1500 | Fine grained substrate |
| Witch flounder | adult | GOME, outer continental shelf from GB south to Chesapeake Bay | 25 - 300 | Fine grained substrate |
| Yellowtail flounder | adult | GB, GOM, SNE and Mid-Atlantic south to Delaware Bay and these estuaries: Sheepscot River and Casco Bay, ME, MA Bay to Cape Cod Bay | 20 - 50 | Sand or sand and mud |

6.4.3. Fishery Impact Considerations

Only those gear types which contact the bottom impact physical habitat. As described in section 6.2 and shown in Figure 23; the vast majority of scup landed in the commercial fishery are caught with bottom trawls. About 7% of the scup landed in the commercial fishery in the summer are caught with pots/traps. Other gear types account for small percentages of commercial scup landings and do not contact the bottom (e.g. floating traps, pound nets, hand lines, and gill nets). This section summarizes the impacts of bottom trawls and fish pots/traps on physical habitat.

Otter trawl doors can create furrows in sand, mud, and gravel/rocky substrates. Studies have found furrow depths that range from 2 to 10 cm. Bottom trawl gear can also re-suspend and disperse surface sediments and can smooth topographic features. It can also result in reduced abundance, and in some cases reduced diversity, of benthic species such as nematodes, polychaetes, and bivalves. It can also have short-term positive ecological impacts such as increased food value and increased chlorophyll production in surface sediments. The duration of these impacts varies by sediment type, depth, and frequency of the impact (e.g. a single trawl tow vs. repeated tows). Some studies have documented effects that lasted only a few months. Other

studies found effects that lasted up to 18 months. Impacts tend to have shorter durations in dynamic environments with less structured bottom composition compared to less dynamic environments with structured bottom. Shallower water, stronger bottom currents, more wave action, finer-grained sediments, and higher frequencies of natural disturbance are characteristics that make environments more dynamic (Stevenson et al. 2004).

Compared to otter trawls, Stevenson et al. (2004) summarized fewer studies on fish pots/traps. Morgan and Chuenpagdee (2003) found that the impacts of traps were generally limited to warm or shallow-water environments with rooted aquatic vegetation or “live bottom” environments (e.g. coral reefs). These impacts were of a lesser degree than those from bottom trawls. Eno et al. (2001) found that traps can bend, smother, and uproot sea pens in soft sediments; however, sea pen communities were largely able to recover within a few days of the impact.

The Council developed some fishery management actions with the sole intent of protecting marine habitats. For example, in Amendment 9 to the Mackerel, Squids, and Butterfish FMP, the Council determined that bottom trawls used in Atlantic mackerel, longfin and *Illex* squid, and butterfish fisheries have the potential to adversely affect EFH for some federally-managed fisheries (MAFMC 2008). As a result of Amendment 9, closures to squid trawling were developed for portions of Lydonia and Oceanographer Canyons. Subsequent closures were implemented in these and Veatch and Norfolk Canyons to protect tilefish EFH by prohibiting all bottom trawling activity. In addition, amendment 16 to the Mackerel, Squid, and Butterfish FMP prohibits the use of all bottom-tending gear in fifteen discrete zones and one broad zone where deep sea corals are known or highly likely to occur (81 *Federal Register* 90246, December 14, 2016).

7. Environmental Consequences of Alternatives

This section summarizes the expected impacts of each of the management alternatives (section 5) on the four VECs:

- Scup and non-target species (section 7.1)
- Human communities (section 7.2)
- Protected species (section 7.3)
- Physical habitat (section 7.4)

This section is organized by VEC. The expected impacts of the alternatives are described in terms of direction (i.e. negative, neutral, or positive) and magnitude (i.e. slight, moderate, or high). Both short and long-term impacts are considered.

When considering impacts on each VEC, the alternatives are compared to the no action alternative (alternative 1) and assessed based on their likely impacts on current environmental and socioeconomic conditions (section 6). The no action alternative assumes that the current management regimes and fishery operations will continue into the future. The no action

alternative does not necessarily imply no impact. The affected environment is not static; therefore, impacts to the VECs could still occur if no action is taken, as is explained in more detail in the following sections.

It is not possible to quantify with confidence how fishing effort will change under each alternative; therefore, expected changes are described qualitatively. In general, alternatives which may result in an increase in fishing effort, compared to recent levels, could lead to increased fishing mortality for target and non-target species. An increase in fishing mortality could result in negative impacts if it causes the stock in question to experience overfishing or to become or remain overfished. If the increase in fishing mortality does not result in overfishing or an overfished status, it could have neutral impacts on the stock. Conversely, alternatives which may result in a decrease in fishing effort may lead to a decrease in fishing mortality and thus neutral or positive impacts for those species, depending on the magnitude of the decrease and on the abundance of the stock in question.

Socioeconomic impacts are considered in relation to potential changes in landings, prices, and revenues. Alternatives which could lead to increased availability of landed species and/or an increase in catch per unit effort (CPUE) could lead to increased landings. Increased landings are generally considered to have positive socioeconomic impacts because they are likely to result in increased revenues; however, some negative socioeconomic impacts could occur, or the magnitude of the positive impacts could be lessened, if an increase in landings leads to a decrease in price or a decrease in abundance of any of the landed species.

Alternatives which may result in an increase in fishing effort may lead to an increase in the amount of time that fishing gear is in the water and thus could increase the potential for interactions between fishing gear and protected species. Changes in interaction rates with protected species are difficult to predict and may not directly correlate with overall levels of effort as they are highly dependent on the location and timing of fishing effort. Continued fishing activity, even at *status quo* levels, can result in negative impacts to protected species as it can contribute to the continuation of an endangered or threatened status.

Alternatives which may result in a reduction in fishing effort, compared to recent levels, may have neutral to positive impacts on physical habitat. A reduction in fishing effort could lead to a decrease in the amount of time that fishing gear is in the water (thus decreasing the potential for damaging interactions between fishing gear and physical habitat) or a decrease in the area over which the gear is used. Either of these changes could result in positive impacts to physical habitat if the habitat is able to recover from past impacts. Some habitats have been heavily fished by multiple fishing fleets over many decades and are unlikely to see a measurable improvement in their condition in response to decreases in effort in an individual fishery. In this way, a reduction in fishing effort could lead to neutral impacts on habitat. Alternatives which may result in an increase in fishing effort may result in negative impacts to habitat due to an increased potential for damaging interactions with fishing gear.

7.1. Impacts of the Alternatives on Scup and Non-Target Species

None of the alternatives would modify the annual commercial scup quotas. These quotas are based on the best available scientific information and are intended to prevent overfishing.⁷ As such, all the alternatives are expected to have positive impacts on the scup stock by continuing to prevent overfishing and maintaining the rebuilt status of the stock.

Fishing effort and landings will continue to be restricted by the annual commercial quota under all the alternatives; however, slight differences among the alternatives are expected in terms of fishing effort and fishing mortality for scup and non-target species. The following sections summarize the impacts expected to result from these slight differences (section 6.1.2).

When ranked in terms of their impacts on scup and non-target species, alternative 1 is expected to have the most positive impacts, followed by alternatives 2, 3.A, 3.B, and 3.C.

7.1.1. Impacts of Alternative 1 (No Action) on Scup and Non-Target Species

Under alternative 1, no changes would be made to the management measures associated with the commercial scup quota periods. These measures help to ensure that commercial landings are restricted to the period quotas and to the annual commercial quota, which is based on the best available science and is intended to prevent overfishing.

As described in section 6.1.1, the scup stock is well above the biomass threshold for overfished status, and has been since 2009. As described in section 6.1.2, none of the common non-target species in the commercial scup fishery are overfished, though some are experiencing overfishing and some have an unknown status. Landings and discards of most of these species in the scup fishery are accounted for and AMs allow for mitigation of negative impacts of mortality in the scup fishery (and other fisheries).

Alternative 1 is not expected to result in a change in fishing effort or fishing mortality compared to recent levels and is thus not expected to impact the status of the scup stock, or of non-target species. It is not expected to result in any stock becoming overfished. By maintaining the benefits of constraining landings to the commercial scup quota and regulating fishing effort, alternative 1 is expected to have continued positive impacts on scup and non-target species.

7.1.2. Impacts of Alternative 2 (Move October to the Winter II Quota Period) on Scup and Non-Target Species

Under alternative 2, the month of October would become part of the Winter II quota period, as opposed to the Summer period under the no action alternative (alternative 1). All other regulations would remain unchanged (section 5.2).

⁷ The process used to develop these quotas is described in detail in MAFMC 2015.

Under the no action alternative (alternative 1), a variety of possession limits are in effect in October in state waters (Table 4). During this time of year, vessels fishing in Federal waters are bound by the possession limits of the state in which they land their catch. Under alternative 2, October would become part of the Winter II quota period and a possession limit of at least 12,000 pounds would be in effect in Federal waters, depending on the amount of unused quota (if any) that rolls over from Winter I. This would represent a notable increase in the possession limit in October, compared to the no action alternative (Table 4).

As described in section 6.1.1, the NEFSC fall bottom trawl survey and the NEAMAP survey suggest that commercial-sized scup are available in both state and Federal waters during October (Figure 11- Figure 15). This suggests that an increase in the possession limit during October could lead to increased landings. However, the RI DEM trawl survey, the URI GSO Narragansett Bay trawl survey, and the state of New Jersey Ocean Trawl Survey suggest that most of the scup present in state and Federal waters in October are below the commercial size, which would not be expected to lead to an increase in landings as those scup would have to be discarded (Figure 16 - Figure 20).

The increased possession limit in October under alternative 2, coupled with availability of commercial-sized scup as shown in some trawl surveys, is expected to lead to a slight increase in fishing effort and commercial scup landings during the month of October, compared to the no action alternative (alternative 1). This in turn is expected to result in a slight increase in fishing mortality for scup and non-target species. Commercial landings would still be closely monitored and the fishery would close for the remainder of the Winter II period if the Winter II allocation is fully harvested before the end of the year. Annual landings are expected to slightly increase under alternative 2, but not to the extent that they exceed the annual commercial quota. The annual commercial quota is derived from the best scientific information available and is intended to prevent overfishing. Thus, the expected increase in fishing effort and fishing mortality under alternative 2 is not expected to jeopardize the sustainability of the scup stock. Due to the availability of scup in October, it is possible that scup landings could increase under alternative 2 with only a minor increase in fishing effort if CPUE is high. If so, alternative 2 could have only minimal impacts on non-target species.

By continuing to prevent overfishing, alternative 2 is expected to have positive impacts on scup and non-target species. Alternative 2 is expected to lead to an increase in fishing effort and fishing mortality compared to alternative 1; therefore, the positive impacts of alternative 2 are expected to be lesser in magnitude than alternative 1.

7.1.3. Impacts of Alternative 3 (Move May 1-15 to the Winter I Quota Period and Move October to the Winter II Quota Period) on Scup and Non-Target Species

Alternative 3 includes three sub-alternatives (alternatives 3.A-3.C). The impacts of those alternatives on scup and non-target species are summarized in the following sections.

7.1.3.1. Impacts of Alternative 3.A (Move May 1-15 to the Winter I Quota Period, Move October to the Winter II Quota Period, and Take No Action on Winter I and Summer Quota Counting Procedures) on Scup and Non-Target Species

Under the no action alternative (alternative 1), the Summer quota period begins May 1. A variety of possession limits are in effect in state waters during the Summer period (Table 4) and vessels fishing in Federal waters are bound by the possession limits of the state in which they land their catch. Under alternative 3.A, May 1-15 would become part of the Winter I quota period and a Federal waters possession limit of 50,000 pounds would be in effect during that time. This represents a sizeable increase in the possession limit, compared to the no action alternative (Table 4). In addition, under alternative 3.A, October would become part of the Winter II period, as opposed to the Summer period under alternative 1. The expected impacts of the change in October on scup and non-target species are described in the previous section for alternative 2 and are not repeated here.

In addition to the changes in the dates of the quota periods, under alternative 3.A the quota counting procedures described in section 4.2 and at 50 CFR 648.123(a)(2)(iv) would remain unchanged. These quota counting procedures allow for certain circumstances in which state-only permit holders fishing in state waters can land scup during April 15-30 if the Winter I fishery is otherwise closed. Since this measure was implemented in 2003, the Winter I fishery has not closed prior to April 30; therefore, this procedure has never been used. If it were to be used, it could lead to a very slight increase in landings than would otherwise be allowed if this provision did not exist. This increase in landings would occur during a maximum of two weeks each year. Landings would still be restricted to the quota period allocations and to the annual commercial quota, which is based on the best available science and is intended to prevent overfishing.

As described in section 6.1.1, the NEAMAP, RI DEM, URI GSO Narragansett Bay, and MA DMF trawl surveys suggest that commercial-sized scup are present in state and Federal waters during May 1-15 (Figure 4 -Figure 10, Figure 18). The increased possession limit during May 1-15 under alternative 3.A, coupled with availability of commercial-sized scup as shown in these surveys, is expected to lead to a slight increase in fishing effort and fishing mortality during May 1-15 compared to alternatives 1 and 2 and during October compared to alternative 1. However, the availability of scup may result in high CPUE, which could allow for an increase in landings with only a minimal increase in fishing effort.

Scup spawn along the inner continental shelf, mostly off southern New England, from May through August, with a peak in June and July. In some locations, such as eastern Long Island bays and Raritan Bay, spawning mostly occurs in May and June (Steimle et al. 1999).

Alternative 3.A is thus expected to lead to a slight increase in fishing mortality during the beginning of the scup spawning season compared to the no action alternative (alternative 1). An increase in fishing mortality could have greater negative impacts during the spawning season than during other times of the year if it negatively impacts recruitment. Under alternative 3.A,

this increase in fishing mortality would occur during two weeks of the four-month spawning season; therefore, it may not have a notable impact on recruitment. Additionally, the scup fishery (and other fisheries) have operated during this time of year with lower possession limits for decades. Some level of fishing effort will continue during this time of year, regardless of which alternative is implemented. Thus, if no action is taken, the fishery would continue to have some impacts during the spawning season.

Under alternative 3.A, commercial landings would still be closely monitored and the fishery would close for the remainder of any quota period if the allocation for that period is landed before the end of the year. Annual landings are expected to slightly increase under alternative 3.A, but not to the extent that they exceed the annual commercial quota. The quota is derived from the best scientific information available and is intended to prevent overfishing. In addition, the availability of scup in state and Federal waters as shown in several trawl surveys suggests that landings could increase with only a minor increase in fishing effort if CPUE is high. For these reasons, the expected increase in fishing effort and fishing mortality under alternative 3.A is not expected to jeopardize the sustainability of the scup stock or any non-target stocks. Alternative 3.A is thus expected to have positive impacts on scup and non-target stocks. Alternative 3.A is expected to lead to a slight increase in fishing effort and fishing mortality during May 1-15 compared to alternatives 1 and 2 and during October compared to alternative 1; therefore, the positive impacts of alternative 3 are expected to be lesser in magnitude than those of alternatives 1 and 2.

7.1.3.2. Impacts of Alternative 3.B (Move May 1-15 to the Winter I Quota Period, Move October to the Winter II Quota Period, and Modify the End Date of the Winter I and Summer Quota Counting Procedures) on Scup and Non-Target Species

Alternative 3.B is identical to alternative 3.A (the impacts of which are described in section 7.1.2) except that the quota counting procedures described in in section 4.2 and at 50 CFR 648.123(a)(2)(iv) would be modified such that, in certain circumstances, state-only permit holders fishing in state waters could land scup during April 15 – May 15 if the Winter I fishery is otherwise closed (as opposed to April 15-30 under alternative 3.A). This would allow for landings of scup during up to four weeks (as opposed to up to two weeks under alternative 3.A) in certain circumstances when landings would otherwise be prohibited. This could lead to a very slight increase in fishing effort, compared to alternatives 3.A and 3.C (both of which would allow these landings during a two week period); thus, alternative 3.B is expected to have slight negative impacts on scup and non-target species, compared to alternatives 3.A and 3.C. However, by continuing to restrict landings to the annual commercial quota, which is based on the best available science and is intended to prevent overfishing, and by continuing to address incidental catch of other species through AMs, overall, alternative 3.B is expected to have positive impacts on scup and non-target species.

7.1.3.3. Impacts of Alternative 3.C (Move May 1-15 to the Winter I Quota Period, Move October to the Winter II Quota Period, and Modify the Beginning and End Dates of the Winter I and Summer Quota Counting Procedures) on Scup and Non-Target Species

Alternative 3.C is identical to alternative 3.A (the impacts of which are described in section 7.1.2) except that the quota counting procedures described in section 4.2 and at 50 CFR 648.123(a)(2)(iv) would be modified such that, in certain circumstances, state-only permit holders fishing in state waters could land scup during May 1-15 if the Winter I fishery is otherwise closed (as opposed to April 15-30 under alternative 3.A and April 15 – May 15 under alternative 3.B). Both alternatives 3.A and 3.C would allow for landings by certain vessels during up to two weeks when landings would otherwise be prohibited. Alternatives 3.A and 3.C are expected to have identical impacts on scup and non-target species. For the reasons described in section 7.1.3.1, alternative 3.C is expected to have positive impacts on scup and non-target species. These impacts are expected to be more positive than the impacts of alternative 3.B (section 7.3.3.2).

7.2. Socioeconomic Impacts of the Alternatives

All the alternatives will continue to ensure that the commercial quota is not fully harvested early in the year and that vessels fishing in the winter (typically larger vessels) and vessels fishing in the summer (typically smaller vessels) have access to quota. In this way, they are all expected to have some positive socioeconomic impacts. They are expected to result in slight differences in the timing of landings throughout the year. The expected socioeconomic impacts resulting from these slight differences are described in the following sections. When ranked in terms of their socioeconomic impacts, alternative 3.B is expected to have the most positive impacts, followed by alternatives 3.C, 3.A, 3, and 1.

7.2.1. Socioeconomic Impacts of Alternative 1 (No Action)

Under alternative 1, no changes would be made to the management measures associated with the commercial scup quota periods.

In recent years, more vessels have landed scup during the summer than during the winter (Figure 21). A higher proportion of smaller vessels landed scup in the summer than during the winter (Figure 22). To the extent that the quota period regulations may have allowed for continued participation by these smaller vessels in the summer months, they may have had positive socioeconomic impacts. Maintaining these regulations would have continued positive socioeconomic impacts, especially in years of low quotas.

From 2011 through 2016, commercial scup landings were 20-47% below the annual commercial quota (Table 5). Some advisors have said that the lower possession limits during the Summer period, compared to during the Winter I and Winter II periods (Table 2 and Table 4), prevented

higher landings of scup when they were available and that this was partly why landings have been below the annual quota. To the extent that the quota period regulations have restricted landings (and thus, revenues), they may have had slight negative socioeconomic impacts.

Overall, the commercial scup quota period regulations have had slight, but mixed (i.e. both positive and negative) socioeconomic impacts. By leaving these regulations unchanged, alternative 1 would have continued mixed socioeconomic impacts.

7.2.2. Socioeconomic Impacts of Alternative 2 (Move October to the Winter II Quota Period)

Under alternative 2, the month of October would become part of the Winter II quota period, as opposed to the Summer period under the no action alternative (alternative 1). All other regulations, including the allocations, quota rollover provisions, and possession limits would remain unchanged (section 5.2).

Alternative 2 would continue to help ensure that the commercial quota is spread throughout the year; thus, it will maintain some of the positive socioeconomic benefits associated with alternative 1 by helping to maintain access to quota for both larger offshore vessels and smaller inshore vessels, especially in years of low quota.

For the reasons described in section 7.1.2, commercial scup landings in October are expected to increase slightly under alternative 2, compared to the no action alternative (alternative 1). Landings are not expected to exceed the annual quota and are thus not expected to increase to the extent that the rebuilt status of the scup stock is threatened. This slight increase in landings is expected to lead to slightly increased revenues for fishermen and commercial fish dealers, and thus slight positive socioeconomic impacts.

The price of scup is generally inversely correlated with landings (i.e. the price tends to be lower when landings are higher). This relationship is not linear and many other factors also influence price; therefore, it is difficult to predict with confidence how the price could change under alternative 2. If an increase in landings during October results in a decrease in price, then the positive socioeconomic impacts of alternative 2 may be lesser in magnitude. Smaller vessels have a more limited ability to increase the volume of their landings to offset a decrease in price, compared to larger vessels; therefore, a decrease in price may have some negative impacts on smaller vessels, compared to larger vessels. In October 2011-2015, commercial fish dealers paid an average of \$0.77 per pound of scup (Figure 25).

Although alternative 2 could result in a decrease in price compared to the no action alternative (alternative 1) and thus could have some negative impacts on smaller vessels, compared to larger vessels, overall it is expected to have slight positive socioeconomic impacts by allowing for increased landings and increased revenues for the commercial scup fishery as a whole.

7.2.3. Socioeconomic Impacts of Alternative 3 (Move May 1-15 to the Winter I Quota Period and Move October to the Winter II Quota Period)

Alternative 3 includes three sub-alternatives (alternatives 3.A-3.C). The socioeconomic impacts of those alternatives are summarized in the following sections.

7.2.3.1. Socioeconomic Impacts of Alternative 3.A (Move May 1-15 to the Winter I Quota Period, Move October to the Winter II Quota Period, and Take No Action on Winter I and Summer Quota Counting Procedures)

Under alternative 3.A, May 1-15 would become part of the Winter I quota period (as opposed to the Summer period under the no action alternative) and the month of October would become part of the Winter II quota period (as opposed to the Summer period under the no action alternative). The quota counting procedures described in section 4.2 and at 50 CFR 648.123(a)(2)(iv) would remain unchanged. These quota counting procedures allow for certain circumstances in which state-only permit holders fishing in state waters can land scup during April 15-30 if the Winter I fishery is otherwise closed. These provisions have never been used because the Winter I fishery has not prematurely closed since they were first implemented in 2003. If these measures were to be used, they would be expected to lead to slight positive socioeconomic impacts for certain permit holders because they would allow for landings (and revenues from those landings) by those permit holders in certain circumstances when landings would otherwise be prohibited.

For the reasons described in section 7.1.3, commercial scup landings are expected to increase under alternative 3.A compared to the no action alternative (alternative 1), and compared to alternative 2. Landings are expected to be slightly higher because the possession limit would increase for six weeks each year, compared to alternative 1, and for two more weeks than alternative 2. Thus, alternative 3.A is expected to lead to increased revenues and positive socioeconomic impacts compared to alternatives 1 and 2.

Landings are not expected to exceed the annual quota and are thus not expected to increase to the extent that the rebuilt status of the scup stock is threatened. As described in the previous section, if increased landings result in a decrease in price, then the positive socioeconomic impacts would be lesser in magnitude. As previously stated, this decrease in price could put smaller vessels at a disadvantage compared to larger vessels as they have less capacity to increase the volume of their landings to offset the decrease in price. In May 2011-2015, commercial fish dealers paid an average of \$0.52 per pound of scup. The average price in October was \$0.77 per pound (Figure 25). A variety of factors influence price; thus, it is difficult to predict with confidence how the price could change under alternative 3.A. Because alternative 3.A is expected to lead to a greater increase in landings compared to alternatives 1 and 2 it could lead to a greater decrease in price and could have greater negative impacts for small vessels, compared to larger vessels. However; alternative 3.A is expected to lead to increased landings and increased revenues for the

commercial fishery as a whole; therefore, overall, it is expected to have slight positive socioeconomic impacts compared to alternatives 1 and 2.

7.2.3.2. Socioeconomic Impacts of Alternative 3.B (Move May 1-15 to the Winter I Quota Period, Move October to the Winter II Quota Period, and Modify the End Dates of the Winter I and Summer Quota Counting Procedures)

Alternative 3.B is identical to alternative 3.A (the socioeconomic impacts of which are described in the previous section) except that the dates of the special quota counting procedures would be modified to April 15- May 15, as opposed to April 15-30 under alternative 3.A. Under alternative 3.B, this special quota counting procedure could be used during up to four weeks prior to the start of the Summer quota period (which would become May 16). For the same reasons as described in the previous section, alternative 3.B is expected to have slight positive socioeconomic impacts because it is expected to lead to slightly increased landings and revenues for the fishery as a whole. The positive impacts of alternative 3.B are expected to be slightly greater in magnitude than alternatives 3.A and 3.C because it would allow for landings (and thus revenues) over up to four weeks (compared to two weeks under alternatives 3.A and 3.C) by certain vessels in certain circumstances when landings would otherwise be prohibited.

7.2.3.3. Socioeconomic Impacts of Alternative 3.C (Move May 1-15 to the Winter I Quota Period, Move October to the Winter II Quota Period, and Modify the Beginning and End Dates of the Winter I and Summer Quota Counting Procedures)

Alternative 3.C is identical to alternative 3.A (the socioeconomic impacts of which are described in section 0) except that the dates of the special quota counting procedures would be modified to May 1-15, as opposed to April 15-30 under alternative 3.A. Under alternative 3.C, this quota counting procedure could be used during two weeks prior to the start of the Summer quota period (which would become May 16). The length of the period for the special quota counting procedure would be two weeks under both alternatives 3.A and 3.C. Alternative 3.C is expected to have identical socioeconomic impacts as alternative 3.A (i.e. slight positive impacts; section 7.2.3.1). The differences between alternatives 3.A and 3.C are largely administrative in nature and are thus expected to result in negligible differences in socioeconomic impacts.

7.3. Impacts of the Alternatives on Protected Species

The following sections summarize the expected impacts of the alternatives on protected species. When ranked in terms of their expected impacts, alternative 3.B has the highest potential for negative impacts on protected species, followed by alternatives 3.A, 3.C, 3, and 1.

7.3.1. Impacts of Alternative 1 (No Action) on Protected Species

Under alternative 1, no changes would be made to the management measures associated with the commercial scup quota periods. Alternative 1 is not expected to result in a change in fishing

effort, areas fished, or gear types used, compared to recent patterns of fishing effort; therefore, it is not expected to change the impacts of the commercial scup fishery on protected species. The commercial scup fishery has some negative impacts on protected species due to gear interactions that can harm protected species. These negative impacts are expected to continue at recent levels under alternative 1. Recent levels of impacts are not expected to jeopardize any protected species; therefore, the impacts of alternative 1 on protected species are expected to be slight (as opposed to moderate or high) negative.

7.3.2. Impacts of Alternative 2 (Move October to the Winter II Quota Period) on Protected Species

Under alternative 2, October would become part of the Winter II quota period, as opposed to the Summer period under the no action alternative (alternative 1). All other regulations, including the allocations, quota rollover provisions, and possession limits would remain unchanged (section 5.2).

For the reasons described in section 7.1.2, alternative 2 is expected to lead to a slight increase in fishing effort in October, compared to the no action alternative (alternative 1). An increase in fishing effort could lead to an increase in interactions between fishing gear and protected species. It is possible that this increase in effort could be greater for certain gear types than others. For example, fishermen using bottom trawls may be better able to take advantage of the increased possession limit than pot/trap or hook and line fishermen. It is difficult to predict with certainty how fishing effort from each gear type may change under alternative 2. Overall, because it is expected to lead to a slight increase in fishing effort, alternative 2 is expected to have slight negative impacts on protected species, compared to the no action alternative. This increase in interactions is not expected to be great enough to jeopardize any protected species as the quota period allocations and annual quota would continue to restrict fishing effort to levels previously considered in consultations on fishing impacts on protected species.

7.3.3. Impacts of Alternative 3 (Move May 1-15 to the Winter I Quota Period and Move October to the Winter II Quota Period) on Protected Species

Alternative 3 includes three sub-alternatives (alternatives 3.A-3.C). The impacts of those alternatives on protected species are summarized in the following sections.

7.3.3.1. Impacts of Alternative 3.A (Move May 1-15 to the Winter I Quota Period, Move October to the Winter II Quota Period, and Take No Action on Winter I and Summer Quota Counting Procedures) on Protected Species

Under alternative 3.A, May 1-15 would become part of the Winter I quota period (as opposed to the Summer period under the no action alternative) and October would become part of the Winter II quota period (as opposed to the Summer period under the no action alternative). The

quota counting procedures described in section 4.2 and at 50 CFR 648.123(a)(2)(iv) would remain unchanged.

For the reasons described in section 7.1.3, under alternative 3.A fishing effort for scup is expected to increase during May 1-15 and October compared to alternative 1 and during May 1-15 compared to alternative 2. An increase in fishing effort could lead to an increase in interactions between fishing gear and protected species. It possible that this increase could be greater for certain gear types than others. For example, fishermen using bottom trawls may be better able to take advantage of the increased possession limit than pot/trap or hook and line fishermen. It is difficult to predict with certainty how fishing effort from each gear type may change under alternative 3.A. Overall, alternative 3.A is expected to have slight negative impacts on protected species, compared to alternatives 1 and 2. This increase in interactions is not expected to be great enough to jeopardize any protected species as the period and annual quotas would continue to restrict fishing effort to levels previously considered in consultations on fishing impacts on protected species.

7.3.3.2. Impacts of Alternative 3.B (Move May 1-15 to the Winter I Quota Period, Move October to the Winter II Quota Period, and Modify the End Dates of the Winter I and Summer Quota Counting Procedures) on Protected Species

Alternative 3.B is identical to alternative 3.A (the impacts of which are described in the previous section) except that the dates of the special quota counting procedures would be modified to April 15- May 15, as opposed to April 15-30 under alternative 3.A. Under alternative 3.B, this special quota counting procedure could be used during up to four weeks prior to May 16 (compared to up two weeks under alternatives 3.A and 3.C). For the reasons described in section 7.1.3.2, alternative 3.B could allow for slightly increased fishing effort compared to all the other alternatives, though this increase would be very slight compared to alternatives 3.A and 3.C. For the same reasons as described in the section 7.3.3.1, alternative 3.B is expected to have slight negative impacts on protected species. This increase in interactions, though difficult to predict quantitatively, is not expected to be great enough to jeopardize any protected species as the period and annual quotas will continue to restrict fishing effort to levels previously considered in consultations on fishing impacts on protected species.

7.3.3.3. Impacts of Alternative 3.C (Move May 1-15 to the Winter I Quota Period, Move October to the Winter II Quota Period, and Modify the Beginning and End Dates of the Winter I and Summer Quota Counting Procedures) on Protected Species

Alternative 3.C is identical to alternative 3.A (the impacts of which are described in section 7.3.3.1) except that the dates of the special quota counting procedures would be modified to May 1-15, as opposed to April 15-30 under alternative 3.A. The differences between alternatives 3.A and 3.C are largely administrative in nature; thus, the expected impacts of alternative 3.C on

protected species are identical to those of alternative 3.A (i.e. slight negative impacts; section 7.3.3.1).

7.4. Impacts of the Alternatives on Physical Habitat

The following sections summarize the expected impacts of the alternatives on physical habitat. When ranked in terms of their impacts on physical habitat, alternative 3.B is expected to have the most negative impacts, followed by alternatives 3.C, 3.A, 2, and 1.

7.4.1. Impacts of Alternative 1 (No Action) on Physical Habitat

Under alternative 1, no changes would be made to the management measures associated with the commercial scup quota periods. A variety of factors influence fishing effort, including the quota period allocations and possession limits, as well as other factors such as the overall annual quota and the price and availability of scup and other targeted species. To the extent that the commercial scup quota period regulations have restricted fishing effort, they have also limited the potential for interactions between fishing gear and physical habitat. Alternative 1 is not expected to change fishing effort compared to recent levels. Fishing effort would be expected to continue at recent levels in areas that have been impacted by the scup fishery, and by other fisheries for decades. This continued level of fishing effort is not expected to result in additional negative impacts to these habitats that are already regularly impacted by fishing gear. For these reasons, alternative 1 is expected to have neutral impacts on physical habitat.

7.4.2. Impacts of Alternative 2 (Move October to the Winter II Quota Period) on Physical Habitat

Under alternative 2, October would become part of the Winter II quota period, as opposed to the Summer period under the no action alternative (alternative 1). All other regulations, including the allocations, quota rollover provisions, and possession limits would remain unchanged (section 5.2).

For the reasons described in section 7.1.2, alternative 2 is expected to lead to a slight increase in fishing effort for scup, compared to the no action alternative (alternative 1). An increase in fishing effort could lead to an increase in interactions between fishing gear and physical habitat; therefore, alternative 2 is expected to have slight negative impacts on physical habitat, compared to the no action alternative. These impacts are expected to be minor because they would occur during one month of the year and fishing effort would still be restricted by the annual quota, the seasonal period quotas, and the possession limits. In addition, this increase in effort is expected to occur in areas that are already impacted by the commercial scup fishery and other fisheries year-round.

7.4.3. Impacts of Alternative 3 (Move May 1-15 to the Winter I Quota Period and Move October to the Winter II Quota Period) on Physical Habitat

Alternative 3 includes three sub-alternatives (alternatives 3.A-3.C). The impacts of those alternatives on physical habitat are summarized in the following sections.

7.4.3.1. Impacts of Alternative 3.A (Move May 1-15 to the Winter I Quota Period, Move October to the Winter II Quota Period, and Take No Action on Winter I and Summer Quota Counting Procedures) on Physical Habitat

Under alternative 3.A, May 1-15 would become part of the Winter I quota period (as opposed to the Summer period under the no action alternative) and October would become part of the Winter II quota period (as opposed to the Summer period under the no action alternative). The quota counting procedures described in section 4.2 and at 50 CFR 648.123(a)(2)(iv) would remain unchanged.

For the reasons described in section 7.1.3, fishing effort is expected to slightly increase under alternative 3.A, compared to the no action alternative (alternative 1) and alternative 2. An increase in fishing effort could lead to an increase in interactions between fishing gear and physical habitat; therefore, alternative 3.A is expected to have slight negative impacts on physical habitat, compared to alternatives 1 and 2. These impacts are expected to be minor because they would occur during six weeks of the year and fishing effort would still be restricted by the annual quota, the seasonal period quotas, and the possession limits. In addition, this increase in effort is expected to occur in areas that are already impacted by the scup fishery and other fisheries year-round.

7.4.3.2. Impacts of Alternative 3.B (Move May 1-15 to the Winter I Quota Period, Move October to the Winter II Quota Period, and Modify the End Dates of the Winter I and Summer Quota Counting Procedures) on Physical Habitat

Alternative 3.B is identical to alternative 3.A (the impacts of which are described in the previous section) except that the dates of the special quota counting procedures would be modified to April 15- May 15, as opposed to April 15-30 under alternative 3.A. Under alternative 3.B, this special quota counting procedure could be used during up to four weeks, as opposed to two weeks under alternatives 3.A and 3.C. For the reasons described in section 7.1.3.2, alternative 3.B could allow for slightly increased fishing effort and thus slight negative impacts to physical habitat compared to all the other alternatives. These impacts are expected to be minor because they would occur during six weeks of the year and fishing effort would still be restricted by the annual quota, the seasonal period quotas, and the possession limits. In addition, this increase in effort is expected to occur in areas that are already impacted by the scup fishery and other fisheries year-round.

7.4.3.3. Impacts of Alternative 3.C (Move May 1-15 to the Winter I Quota Period, Move October to the Winter II Quota Period, and Modify the Beginning and End Dates of the Winter I and Summer Quota Counting Procedures) on Physical Habitat

Alternative 3.C is identical to alternative 3.A (the impacts of which are described in section 7.4.3.1) except that the dates of the special quota counting procedures would be modified to May 1-15, as opposed to April 15-30 under alternative 3.A. For the reasons described in section 7.1.3.3, alternative 3.C is expected to have identical impacts on fishing effort as alternative 3.A; therefore, it is expected to have identical impacts on physical habitat (i.e. slight negative impacts; section 7.4.3.1).

7.5. Cumulative Effects

A cumulative effects analysis is required by the Council on Environmental Quality (CEQ; 40 CFR part 1508.7). The purpose of cumulative effects analysis is to consider the combined effects of many actions on the human environment over time that would be missed if each action were evaluated separately. CEQ guidelines recognize that it is not practical to analyze the cumulative effects of an action from every conceivable perspective; rather, the intent is to focus on those effects that are truly meaningful. A formal cumulative impact assessment is not required as part of an environmental assessment under NEPA if the significance of cumulative impacts have been considered (U.S. EPA 1999). The following sections address the significance of the expected cumulative impacts as they relate to the VECs considered in this document.

7.5.1. Consideration of the VECs

This section summarizes the significance of cumulative effects on the four VECs:

- Scup and non-target species
- Human communities
- Protected species
- Physical habitat

7.5.2. Geographic Boundaries

In a broad sense, the western North Atlantic Ocean is the core geographic scope for the VECs. The core geographic scope for the managed species, including managed non-target species, are their associated management units (e.g. state and federal waters from Maine to Cape Hatteras, North Carolina, for scup). For habitat, the core geographic scope is focused on EFH within the EEZ but includes all habitat utilized by scup and non-target species in the Western Atlantic Ocean. The core geographic scope for protected species is the range of those species in the Western Atlantic Ocean. For human communities, the core geographic boundaries are defined as those U.S. fishing communities directly involved in the harvest or processing of scup in coastal states from Maine through North Carolina (section 6.2).

7.5.3. Temporal Boundaries

The temporal scope of past and present actions which impact the VECs is primarily focused on actions that occurred after 1996, when the Council added scup to the Summer Flounder FMP. For protected species, the scope of past and present actions is on a species-by-species basis (section 6.3) and is largely focused on the 1980s and 1990s (when NMFS began generating stock assessments for marine mammals and sea turtles that inhabit waters of the U.S. EEZ) through the present. The temporal scope of future actions for all VECs extends about three years (2020) into the future. The dynamic nature of resource management for scup and non-target species and lack of information on projects that may occur in the future make it difficult to predict impacts beyond this timeframe with any certainty.

7.5.4. Actions other than Those Considered in this Document

The impacts of the alternatives considered in this document are described in section 7.

Table 10 summarizes meaningful past, present, or reasonably foreseeable future actions which may impact the VECs in addition to the alternatives considered in this document.

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Table 10 also includes qualitative descriptions of the impacts of those actions. Impacts of these actions are too complex to be quantified in a meaningful way.

The MSA is the statutory basis for Federal fisheries management. The past and ongoing management practices of the Mid-Atlantic Council have generally resulted in positive impacts on the health of the managed stocks. The Council has taken numerous actions to manage these fisheries through amendments and framework adjustments, examples of which are listed in

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Table 10. For example, the specifications process for setting ACLs, as required by the MSA, provides the opportunity for the Council and NMFS to regularly assess the status of managed fisheries (including the scup fisheries) and to make necessary adjustments to ensure a reasonable expectation of meeting the objectives of the FMPs.

The cumulative impacts of past, present, and reasonably foreseeable future Federal fishery management actions on the VECs are expected to result in long-term sustainability of the managed stocks. These actions should, in the long-term, promote positive impacts on human communities, especially those communities that are economically dependent on the managed stocks. Many past fishery management actions resulted in reduced fishing effort and/or reduced impacts of fishing through access limitation, vessel upgrade restrictions, area and gear restrictions, EFH designations, AMs, and other measures. These measures benefitted the managed species, non-target species, protected species, and habitat. Human communities benefited in the long term from the continued productivity of managed stocks; however, some of these measures caused short-term negative economic impacts (

Table 10).

Non-fishing activities such as climate change, point and non-point source pollution, shipping, dredging, storm events, and other factors affect the physical and biological dimensions of the environment. Many of these non-fishing activities are widespread, can have localized impacts to habitat, and have resulted in habitat loss for some species. Such activities include at-sea disposal of sediments and other materials, oil and mineral resource exploration, aquaculture, installation of wind turbines, bulk transportation of petrochemicals, and other activities, as well as natural events such as storms. Activities that introduce chemical pollutants, sewage, or suspended sediments into the marine environment, or result in changes in water temperature, salinity, or dissolved oxygen all pose risks to the VECs.

Some non-fishing human activities such as agriculture, port maintenance, beach nourishment, coastal development, marine transportation, marine mining, dredging and the disposal of dredged material tend to be localized in nearshore areas and marine project areas where they occur. Wherever multiple activities co-occur, they can work additively or synergistically to decrease habitat quality and may indirectly impact the sustainability of the managed species, non-target species, and protected species. Decreased habitat suitability tends to reduce the tolerance of these species to the impacts of fishing effort. Impacts to the affected species and their habitats on a population level are generally minor since many of these species have limited or minor exposure to these local non-fishing perturbations. Mitigation through regulations that reduce fishing effort can negatively impact human communities.

Federal agencies wishing to conduct various types of non-fishing activities must examine the potential impacts on the VECs. The MSA (50 CFR 600.930) imposes an obligation on other Federal agencies to consult with the Secretary of Commerce on actions that may adversely affect EFH. The eight regional fishery management councils are engaged in this review process by submitting comments and recommendations on any Federal or state action that may affect habitat, including EFH, for managed species. NMFS also reviews impacts of certain activities regulated by Federal, state, and local authorities as required by section 404 of the Clean Water Act and section 10 of the Rivers and Harbors Act.

In addition, under the Fish and Wildlife Coordination Act (section 662), “whenever the waters of any stream or other body of water are proposed or authorized to be impounded, diverted, the channel deepened, or the stream or other body of water otherwise controlled or modified for any purpose whatever, including navigation and drainage, by any department or agency of the U.S., or by any public or private agency under federal permit or license, such department or agency first shall consult with the U.S. Fish and Wildlife Service (USFWS), Department of the Interior, and with the head of the agency exercising administration over the wildlife resources of the particular state wherein the” activity is taking place. This act provides another avenue for review of actions by other Federal and state agencies that may impact species that NMFS and the Councils manage.

NMFS and the USFWS share responsibility for implementing the ESA. The ESA requires NMFS to designate critical habitat and to develop and implement recovery plans for threatened and endangered species. Critical habitat includes areas that contain physical or biological features essential to the conservation of protected species, which may require special management considerations or protection. The ESA provides an avenue for NMFS to review actions by other entities that may impact endangered and protected species whose management units are under the jurisdiction of NMFS.

7.5.4.1. Climate Change

Each VEC is impacted to some degree by global climate change. Climate shifts may alter the pattern and strength of ocean currents; change the rate of freshwater inflows; influence water temperature, acidity, and salinity; and have other impacts. These changes affect the physical environment directly, which in turn may shape the suitability of local habitats for marine species. Changes in the abundance and distribution of marine species will affect fishing communities. For example, if a species important to a particular community declines in abundance or shifts in distribution due to environmental factors, that community may experience negative impacts. Positive impacts could occur if the abundance of targeted species increases. The direct impacts to the VECs will vary and are associated with some uncertainty.

NMFS scientists developed an assessment of the climate vulnerability of 82 fish and invertebrate species in the northeast region. The authors found that “the overall climate vulnerability is high to very high for approximately half the species assessed; diadromous and benthic invertebrate species exhibit the greatest vulnerability. In addition, the majority of species included in the assessment have a high potential for a change in distribution in response to projected changes in climate. Negative effects of climate change are expected for approximately half of the species assessed, but some species are expected to be positively affected (e.g., increase in productivity or move into the region)” (Hare et al. 2016). Scup were determined to have a moderate vulnerability to climate change. Scup have a high exposure to the effects of climate change because early life stages are typically found in coastal, nearshore waters, and adults seasonally migrate between inshore and offshore waters. However, because they are mobile and are “habitat generalists”, scup may be able to shift their distribution in response to changing temperatures and other factors related to climate change.

Table 10: Impacts of past (P), present (Pr), and reasonably foreseeable future (RFF) actions, not including those actions considered in this document, on the VECs.

| Action | Description | Impacts on Scup and Non-Target Species | Impacts on Human Communities | Impacts on Protected Species | Impacts on Habitat and EFH |
|--|---|--|--|---|---|
| P, Pr Original FMPs and subsequent FMP Amendments and Frameworks | Established commercial and recreational management measures | Indirect Positive Regulatory tool to rebuild and manage stocks and regulate fishing effort | Indirect Positive Benefited domestic businesses | Indirect Positive Reduced fishing effort; implemented gear requirements | Indirect Positive Reduced fishing effort; implemented gear requirements |
| P, Pr, RFF Specifications for managed resources | Establish quotas, recreational harvest limits, and other fishery regulations | Indirect Positive Regulatory tool to specify catch limits, and other regulations in response to annual stock updates | Indirect Positive Benefited domestic businesses | Indirect Positive Regulate fishing effort | Indirect Positive Regulate fishing effort |
| P, Pr, RFF Standardized Bycatch Reporting Methodology | Established acceptable level of precision and accuracy for monitoring of bycatch in fisheries | Neutral May improve data quality for monitoring total removals | Uncertain – Likely Indirect Negative May impose an inconvenience on vessel operations | Neutral Will not affect fishing effort or fishing gears used | Neutral Will not affect fishing effort or fishing gears used |
| P, Pr, RFF Agricultural runoff | Nutrients applied to agricultural land are introduced into aquatic systems | Indirect Negative Reduced habitat quality | Indirect Negative Reduced habitat quality can lead to reduced abundances of target species | Indirect Negative Reduced habitat quality | Direct Negative Reduced habitat quality |
| P, Pr, RFF Port maintenance | Dredging of coastal, port and harbor areas for port maintenance | Uncertain – Likely Indirect Negative Dependent on mitigation effects | Uncertain – Likely Mixed Dependent on mitigation effects | Direct and Indirect Negative Potential interactions with protected species; reduced habitat quality/availability; dependent on mitigation efforts | Uncertain – Likely Direct Negative Dependent on mitigation effects |

| Action | Description | Impacts on Scup and Non-Target Species | Impacts on Human Communities | Impacts on Protected Species | Impacts on Habitat and EFH |
|---|--|---|--|---|---|
| P, Pr, RFF Beach nourishment | Offshore mining of sand for beaches and placement of sand to nourish beach shorelines | Indirect Negative Localized decreases in habitat quality | Mixed Positive for mining companies, tourism; possibly negative for fishing industry if reduced landings result from reduced availability because of negative habitat impacts | Direct and Indirect Negative Reduced habitat quality; dredge interactions; dependent on mitigation efforts | Direct Negative Reduced habitat quality |
| P, Pr, RFF Marine transportation | Expansion of port facilities, vessel operations and recreational marinas | Indirect Negative Localized decreases in habitat quality | Mixed Positive for some interests, potential displacement for others | Direct and Indirect Negative Reduced habitat quality/availability; potential for interactions (ship strikes) with protected species | Direct Negative Reduced habitat quality |
| P, Pr, RFF Offshore disposal of dredged materials | Disposal of dredged materials | Indirect Negative Reduced habitat quality | Indirect Negative Reduced habitat quality can lead to decreased abundance of target species | Indirect Negative Reduced habitat quality; dependent on mitigation efforts | Direct Negative Reduced habitat quality |
| P, Pr, RFF Deep Sea Corals Amendment to the Mackerel, Squid, and Butterfish FMP | Prohibits the use of bottom-tending gear in certain areas known or highly likely to contain deep sea corals. | Direct Positive Fishing effort and gear restrictions may result in increased productivity | Mixed Negative impacts to fishermen who previously used bottom-tending gear in protected areas; positive impacts due to potential increased productivity of some target species. | Uncertain, likely mixed Possible reduced gear interactions in protected areas, but impacts depend on how/where effort is shifted | Direct Positive Reduced gear impacts in protected areas |

| Action | Description | Impacts on Scup and Non-Target Species | Impacts on Human Communities | Impacts on Protected Species | Impacts on Habitat and EFH |
|--|---|---|---|--|--|
| RFF Unmanaged Forage Omnibus Amendment | Restricts landings and fishing effort in Mid-Atlantic Federal waters of over 50 previously unmanaged forage species | Indirect Positive Will reduce fishing mortality for a variety of prey species | Mixed Positive impacts from maintaining prey for target species. Negative impacts for fishermen who already harvest unmanaged forage species in high volumes. | Indirect Positive Will help to maintain prey base for several protected species. | Neutral Is not likely to result in a substantial change in fishing effort. |
| RFF Convening of Take Reduction Teams (periodically) | Recommend measures to reduce mortality and injury to marine mammals and sea turtles | Indirect Positive Reducing availability of gear could reduce bycatch | Indirect Negative Reducing availability of gear could reduce revenues | Indirect Positive Reducing availability of gear could reduce gear impacts | Indirect Positive Reducing availability of gear could reduce gear impacts |

7.5.5. Magnitude and Significance of Cumulative Effects

In determining the magnitude and significance of the cumulative effects, the additive and synergistic effects of the proposed action, as well as past, present, and future actions, must be taken into account. The following section describes the expected effects of these actions on each VEC.

7.5.5.1. Magnitude and Significance of Cumulative Effects on Scup and Non-Target Species

Those past, present, and reasonably foreseeable future actions which may impact scup and non-target species, and the direction of those impacts, are summarized in Table 11. The indirectly negative actions described in Table 11 are localized in nearshore and marine areas where the projects occur; therefore, the magnitude of those impacts on the managed species is expected to be limited due to limited exposure to the populations at large. Agricultural runoff may be much broader in scope and the impacts of nutrient inputs to the coastal system may be larger in magnitude; however, the impact on productivity of the managed species is not quantifiable.

NMFS has several means under which it can review non-fishing actions of other federal or state agencies that may impact NMFS' managed resources prior to permitting or implementation of those projects. This serves to minimize the extent and magnitude of indirect negative impacts those actions could have on resources under NMFS' jurisdiction.

Past fishery management actions taken through the respective FMPs and the annual specifications process have had a positive cumulative effect on the managed species. It is anticipated that the future management actions described in Table 11 will have additional indirect positive effects on the managed resources through actions which reduce and monitor bycatch, protect habitat, and protect the ecosystem services on the productivity of managed species depends. Overall, the past, present, and reasonably foreseeable future actions that are truly meaningful to scup and non-target species have had positive cumulative effects.

Catch limits, commercial quotas and recreational harvest limits for each of the managed species have been specified to ensure that these stocks are managed sustainably and that measures are consistent with FMP objectives under the guidance of the MSA. The impacts of annual specification of management measures are largely dependent on how effective those measures are in meeting the objectives of preventing overfishing and achieving optimum yield, and on the extent to which mitigating measures are effective. The proposed actions described in this document would positively reinforce the past and anticipated positive cumulative effects on the managed species by achieving the objectives specified in the respective FMPs. Therefore, the proposed action would not have any significant effect on managed species individually or in conjunction with other anthropogenic activities (Table 11).

Table 11: Summary of the effects of past, present, and reasonably foreseeable future actions on scup and non-target species.

| Action | Past to Present | Reasonably Foreseeable Future |
|---|--|-------------------------------|
| Original FMPs and subsequent amendments and frameworks | Indirect Positive | |
| Annual specifications | Indirect Positive | |
| Standardized Bycatch Reporting Methodology | Neutral | |
| Agricultural runoff | Indirect Negative | |
| Port maintenance | Likely Indirect Negative | |
| Beach nourishment – offshore sand mining | Indirect Negative | |
| Beach nourishment – sand placement | Indirect Negative | |
| Marine transportation | Indirect Negative | |
| Offshore disposal of dredged materials | Indirect Negative | |
| Renewable & non-renewable offshore & nearshore energy development | Likely Indirect Negative | |
| Deep Sea Corals Amendment | | Direct Positive |
| Unmanaged Forage Omnibus Amendment | | Indirect Positive |
| Convening Gear Take Reduction Teams (periodically) | | Indirect Positive |
| Summary of past, present, and future actions, excluding those proposed in this document | Overall, actions have had or will have positive impacts on scup and non-target species | |

7.5.5.2. Magnitude and Significance of Cumulative Effects on Human Communities

Those past, present, and reasonably foreseeable future actions which may impact human communities and the direction of those potential impacts are summarized in

Table 12. The indirectly negative actions described in Table 12 are localized in nearshore areas and marine project areas where they occur; therefore, the magnitude of those impacts on human

communities is expected to be limited in scope. Those actions may displace fishermen from project areas. Agricultural runoff may be much broader in scope, and the impacts of nutrient inputs to the coastal ecosystem may be larger in magnitude. This may result in indirect negative impacts on human communities by reducing resource availability; however, this effect is not quantifiable.

NMFS has several means under which it can review non-fishing actions of other Federal or state agencies prior to permitting or implementation of those projects. This serves to minimize the extent and magnitude of indirect negative impacts those actions could have on human communities.

Past fishery management actions taken through the respective FMPs and the annual specifications process have had both positive and negative cumulative effects by benefiting domestic fisheries through sustainable fishery management practices while also sometimes reducing the availability of the resource to fishery participants. Sustainable management practices are, however, expected to yield broad positive impacts to fishermen, their communities, businesses, and the nation as a whole. It is anticipated that the future management actions described in Table 12 will result in positive effects for human communities due to sustainable management practices, although additional indirect negative effects on the human communities could occur if management actions result in reduced revenues. Overall, the past, present, and reasonably foreseeable future actions that are truly meaningful to human communities have had overall positive cumulative effects.

Catch limits, commercial quotas, and recreational harvest limits for managed species have been specified to ensure that these stocks are managed in a sustainable manner and that management measures are consistent with the objectives of the FMPs under the guidance of the MSA. The impacts on the managed species are largely dependent on how effective those measures are in meeting their intended objectives and the extent to which mitigating measures are effective.

Overages may alter the timing of commercial fishery revenues such that revenues can be realized a year earlier. Impacts to some fishermen may be caused by unexpected reductions in their opportunities to earn revenues from commercial fisheries in the year during which the overages are deducted. Similarly, recreational fisheries may have decreased harvest opportunities due to reduced harvest limits because of overages and more restrictive management measures (e.g. minimum fish size, possession limits, fishing seasons) implemented to address overages.

Despite the potential for negative short-term impacts on human communities, positive long-term impacts are expected due to the long-term sustainability of the managed stocks. Overall, the proposed actions described in this document would not change the past and anticipated cumulative effects on human communities and thus, would not have any significant effect on human communities individually, or in conjunction with other anthropogenic activities (Table 12).

Table 12: Summary of the effects of past, present, and reasonably foreseeable future actions on human communities.

| Action | Past to Present | Reasonably Foreseeable Future |
|---|---|-------------------------------|
| Original FMPs and subsequent amendments and frameworks | Indirect Positive | |
| Annual specifications | Indirect Positive | |
| Standardized Bycatch Reporting Methodology | Likely Indirect Negative | |
| Agricultural runoff | Indirect Negative | |
| Port maintenance | Uncertain – Likely Mixed | |
| Beach nourishment – offshore sand mining | Mixed | |
| Beach nourishment – sand placement | Positive | |
| Marine transportation | Mixed | |
| Offshore disposal of dredged materials | Indirect Negative | |
| Renewable & non-renewable offshore & nearshore energy development | Likely Mixed | |
| Deep Sea Corals Amendment | | Mixed |
| Unmanaged Forage Omnibus Amendment | | Mixed |
| Convening Gear Take Reduction Teams (periodically) | | Indirect Negative |
| Summary of past, present, and future actions, excluding those proposed in this document | Overall, actions have had, or will have, positive impacts on human communities. | |

7.5.5.3. Magnitude and Significance of Cumulative Effects on Protected Species

Those past, present, and reasonably foreseeable future actions which may impact protected species, and the direction of those impacts, are summarized in Table 13. The indirectly negative actions described in Table 13 are localized in nearshore and marine project areas where they occur; therefore, the magnitude of those impacts on protected species is expected to be limited due to limited exposure of the populations at large. Agricultural runoff may be much broader in

scope and the impacts of nutrient inputs to the coastal system may be larger in magnitude; however, the impact on protected species is not quantifiable.

NMFS has several means under which it can review non-fishing actions of other Federal or state agencies that may impact protected species prior to permitting or implementation of those projects. This serves to minimize the extent and magnitude of indirect negative impacts those actions could have on protected species under NMFS' jurisdiction.

Past fishery management actions taken through the respective FMPs and the annual specifications process have had positive cumulative effects on protected species through the reduction of fishing effort (and thus reduction in potential interactions) and implementation of gear requirements. It is anticipated that the future management actions described in Table 13 will result in additional indirect positive effects on protected species. These impacts could be broad in scope. Overall, the past, present, and reasonably foreseeable future actions that are truly meaningful to protected species have had positive cumulative effects.

The proposed actions described in this document would not change the past and anticipated cumulative effects on protected species and thus would not have any significant effect on protected species individually or in conjunction with other anthropogenic activities (Table 13).

Table 13: Summary of the effects of past, present, and reasonably foreseeable future actions on protected species.

| Action | Past to Present | Reasonably Foreseeable Future |
|---|--------------------------|--------------------------------------|
| Original FMP and subsequent amendments and frameworks | Indirect Positive | |
| Annual specifications | Indirect Positive | |
| Standardized Bycatch Reporting Methodology | Neutral | |
| Agricultural runoff | Indirect Negative | |
| Port maintenance | Likely Indirect Negative | |
| Beach nourishment – offshore sand mining | Indirect Negative | |
| Beach nourishment – sand placement | Indirect Negative | |
| Marine transportation | Indirect Negative | |
| Offshore disposal of dredged materials | Indirect Negative | |
| Renewable & non-renewable offshore & nearshore energy development | Likely Direct Negative | |
| Deep Sea Corals Amendment | | Likely mixed |
| Unmanaged Forage Omnibus Amendment | | Indirect Positive |
| Convening Gear Take Reduction Teams (periodically) | | Indirect Positive |

| | |
|---|--|
| Summary of past, present, and future actions, excluding those proposed in this document | Overall, actions have had, or will have, positive impacts on protected species |
|---|--|

7.5.5.4. Magnitude and Significance of Cumulative Effects on Physical Habitat

Those past, present, and reasonably foreseeable future actions which may impact habitat, and the direction of those potential impacts, are summarized in Table 14. The direct and indirect negative actions described in Table 14 are localized in nearshore and marine project areas where they occur; therefore, the magnitude of those impacts on habitat is expected to be limited due to limited exposure of habitat at large. Agricultural runoff may be much broader in scope and the impacts of nutrient inputs to the coastal system may be larger in magnitude; however, the impact on habitat is not quantifiable.

NMFS has several means under which it can review non-fishing actions of other Federal or state agencies that may impact NMFS' managed resources and the habitat on which they rely prior to permitting or implementation of those projects. This serves to minimize the extent and magnitude of direct and indirect negative impacts those actions could have on habitat utilized by species under NMFS' jurisdiction.

Past fishery management actions taken through the respective FMPs and the annual specifications process have had positive cumulative effects on habitat. The actions have constrained fishing effort both at a large scale and locally and have implemented gear requirements which may have reduced impacts on habitat. EFH and Habitat Areas of Particular Concern were designated for the managed resources. It is anticipated that the future management actions described in Table 14 will result in additional direct or indirect positive effects on habitat through actions which protect EFH and protect ecosystem services on which these species' productivity depends. These impacts could be broad in scope.

All the VECs are interrelated; therefore, the linkages among habitat quality, managed species and non-target species productivity, and associated fishery yields should be considered. For habitat, there are direct and indirect negative effects from actions which may be localized or broad in scope; however, positive actions that have broad implications have been, and will likely continue to be, taken to improve the condition of habitat. Some actions, such as coastal population growth and climate change may indirectly impact habitat and ecosystem productivity; however, these actions are beyond the scope of NMFS and Council management. Overall, the past, present, and reasonably foreseeable future actions that are truly meaningful to habitat have had neutral to positive cumulative effects.

The proposed actions described in this document would not significantly change the past and anticipated cumulative effects on habitat and thus would not have any significant effect on habitat individually or in conjunction with other anthropogenic activities (Table 14).

Table 14: Summary of the effects of past, present, and reasonably foreseeable future actions on habitat and EFH.

| Action | Past to Present | Reasonably Foreseeable Future |
|---|---|-------------------------------|
| Original FMPs and subsequent amendments and frameworks | Indirect Positive | |
| Annual specifications | Indirect Positive | |
| Standardized Bycatch Reporting Methodology | Neutral | |
| Agricultural runoff | Direct Negative | |
| Port maintenance | Likely Direct Negative | |
| Beach nourishment – offshore sand mining | Direct Negative | |
| Beach nourishment – sand placement | Direct Negative | |
| Marine transportation | Direct Negative | |
| Offshore disposal of dredged materials | Direct Negative | |
| Renewable & non-renewable offshore & nearshore energy development | Likely Direct Negative | |
| Deep Sea Corals Amendment | | Direct Positive |
| Unmanaged Forage Omnibus Amendment | | Neutral |
| Convening Gear Take Reduction Teams (periodically) | | Indirect Positive |
| Summary of past, present, and future actions, excluding those proposed in this document | Overall, actions have had or will have neutral to positive impacts on habitat | |

7.5.5.5. Cumulative Effects of Proposed Action on all VECs

[To be completed after the Council selects preferred alternatives.]

8. Applicable Laws

8.1. Magnuson-Stevens Fishery Conservation and Management Act (MSA)

Section 301 of the MSA requires that FMPs contain conservation and management measures that are consistent with the ten National Standards. The Council continues to meet the obligations of National Standard 1 by adopting and implementing conservation and management measures that will continue to prevent overfishing, while achieving optimum yield for managed species and the U.S. fishing industry on a continuing basis. The Council uses the best scientific information available (National Standard 2). Specifically, this framework action was informed by fisheries-independent data from several surveys, commercial fishery landings data, stock assessments, and other scientific data sources. The Council manages scup throughout their range (National Standard 3). The management measures proposed in this framework do not discriminate among residents of different states (National Standard 4) and they do not have economic allocation as their sole purpose (National Standard 5). The measures account for variations in the fishery (National Standard 6), avoid unnecessary duplication (National Standard 7), take fishing communities into account (National Standard 8), and promote safety at sea (National Standard 10). The proposed actions are consistent with National Standard 9, which states that “conservation and management measures shall, to the extent practicable, (A) minimize bycatch and (B) to the extent that bycatch cannot be avoided, minimize the mortality of such bycatch”. By continuing to meet the National Standards requirements of the MSA through future FMP amendments, framework actions, and the annual specification setting process, the Council will insure that cumulative impacts of these actions will remain positive overall for the managed resources, the ports and communities that depend on these fisheries, and the Nation as a whole.

8.2. NEPA Finding of No Significant Impact (FONSI)

National Oceanic and Atmospheric Administration Administrative Order 216-6 (May 20, 1999) contains criteria for determining the significance of the impacts of a proposed action (i.e. the preferred alternatives). In addition, the CEQ regulations at 40 CFR §1508.27 state that the significance of an action should be analyzed both in terms of context and intensity. Each criterion listed below is relevant to making a finding of no significant impact and has been considered individually, as well as in combination with the others. The significance of this action is analyzed based on NOAA Administrative Order 216-6 criteria and CEQ's context and intensity criteria. These include:

1) Can the proposed action reasonably be expected to jeopardize the sustainability of any target species that may be affected by the action?

None of the alternatives proposed in this document are expected to jeopardize the sustainability of any target species affected by the action. Under all alternatives, scup landings would be restricted to the annual commercial quota, which is based on the best available science and is intended to prevent overfishing (section 7.1).

2) Can the proposed action reasonably be expected to jeopardize the sustainability of any non-target species?

None of the alternatives presented in this document are expected to jeopardize the sustainability of any non-target species. Alternatives 2 and 3 are expected to result in a slight increase in fishing effort during 2 and 6 weeks of the year, respectively; however, these changes are not expected to threaten non-target species. Catch of most of these species in the scup fishery is addressed through accountability measures which mitigate the negative impacts of that catch when necessary (sections **Error! Reference source not found.** and **Error! Reference source not found.**).

3) Can the proposed action reasonably be expected to cause substantial damage to the ocean and coastal habitats and/or essential fish habitat as defined under the Magnuson-Stevens Act and identified in FMPs?

The proposed action is not expected to cause substantial damage to the ocean, coastal habitats, and/or EFH as defined under the MSA and identified in the respective FMPs. The proposed action could lead to a slight increase in fishing effort; however, adverse impacts to benthic habitats are not expected to be substantial (section 7.4) and are not expected to be beyond the scope previously identified for these fleets.

4) Can the proposed action be reasonably expected to have a substantial adverse impact on public health or safety?

None of the alternatives will significantly alter the manner in which the industry conducts fishing activities; therefore, no changes in fishing behavior that would affect safety are anticipated. The proposed action will not adversely impact public health or safety.

5) Can the proposed action reasonably be expected to adversely affect endangered or threatened species, marine mammals, or critical habitat of these species?

None of the alternatives presented in this document are expected to adversely affect endangered or threatened species, marine mammals, or critical habitat of those species. Alternatives 2 and 3 are expected to result in a slight increase in fishing effort during 2 and 6 weeks of the year, respectively; however, these changes are not expected to threaten endangered or threatened species, marine mammals, or critical habitat of those species. Under all alternatives, fishing effort would continue to be restricted by the annual commercial quota (section 7.3).

6) Can the proposed action be expected to have a substantial impact on biodiversity and/or ecosystem function within the affected area (e.g. benthic productivity, predator-prey relationships, etc.)?

The proposed action is not expected to have a substantial impact on biodiversity and ecosystem function within the affected area. Alternatives 2 and 3 are expected to result in a slight increase

in fishing effort during 2 and 6 weeks of the year, respectively; however, none of these changes are expected to be substantial enough to impact biodiversity and/or ecosystem function within the affected area.

7) Are significant social or economic impacts interrelated with natural or physical environmental effects?

The proposed action is not expected to have a substantial impact on the natural or physical environment. Alternatives 2 and 3 are expected to result in a slight increase in fishing effort during 2 and 6 weeks of the year, respectively; however, this increase is not expected to be substantial enough to have significant impacts on the natural or physical environment (section **Error! Reference source not found.**).

8) Are the effects on the quality of the human environment likely to be highly controversial?

The proposed action is informed by input from commercial fishing industry advisors, public input, data from several fisheries-independent trawl surveys, and commercial fish dealer data. The proposed action is not expected to jeopardize any stocks or threaten the sustainability of any fisheries and is not expected to be highly controversial.

9) Can the proposed action reasonably be expected to result in substantial impacts to unique areas, such as historic or cultural resources, park land, prime farmlands, wetlands, wild and scenic rivers or ecologically critical areas?

The proposed action is expected to result in a slight increase in fishing effort. It is possible that historic or cultural resources such as shipwrecks could be present in the affected areas; however, these areas are already impacted by the scup fishery and by other fisheries. In addition, vessels try to avoid fishing too close to wrecks due to possible loss or entanglement of fishing gear. It is not likely that the proposed action would result in substantial impacts to unique areas.

10) Are the effects on the human environment likely to be highly uncertain or involve unique or unknown risks?

The proposed action is informed by advisor recommendations, data from several trawl surveys, and commercial fish dealer data. It is expected to result in only minor changes in fishing effort and is not expected to have highly uncertain effects or involve unique or unknown risks for the human environment.

11) Is the proposed action related to other actions with individually insignificant, but cumulatively significant impacts?

As discussed in section **Error! Reference source not found.**, none of the alternatives are expected to have individually insignificant, but cumulatively significant impacts. The proposed action, together with past, present, and reasonably foreseeable future actions, is not expected to

result in significant cumulative impacts on the biological, physical, and human components of the environment.

12) Is the proposed action likely to adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural or historical resources?

There are no districts, sites, highways, structures, or objects, including shipwrecks, listed in or eligible for listing in the National Register of Historical Places that will be affected by the action alternatives (i.e. alternatives 2 and 3) to a greater extent than they would be affected by the no action alternative (alternative 1).

13) Can the proposed action reasonably be expected to result in the introduction or spread of a nonindigenous species?

There is no evidence or indication that the commercial scup fishery has ever resulted in the introduction or spread of nonindigenous species; therefore, it is highly unlikely that the proposed action would result in the introduction or spread of a non-indigenous species.

14) Is the proposed action likely to establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration?

The proposed action is not expected to result in significant effects, nor does it represent a decision in principle about a future consideration. The impacts of any future actions will be analyzed in the process of developing those actions.

15) Can the proposed action reasonably be expected to threaten a violation of Federal, State, or local law or requirements imposed for the protection of the environment?

The proposed action is not expected to alter fishing methods or activities such that they threaten a violation of Federal, State, or local law or requirements imposed for the protection of the environment. The proposed measures have been found to be consistent with other applicable laws (sections 8.1 through 8.11).

16) Can the proposed action reasonably be expected to result in cumulative adverse effects that could have a substantial effect on the target species or non-target species?

The impacts of the proposed action on the biological, physical, and human environment are described in section **Error! Reference source not found.** The cumulative effects of the proposed action on target and non-target species, including ESA and MMPA protected species, are described in section 7.3. The proposed action is not expected to result in cumulate adverse effects that could have a substantial effect on target or non-target species.

DETERMINATION

In view of the information presented in this document and the analysis contained in the supporting environmental assessment prepared for Framework Adjustment 10 to the Summer Flounder, Scup, and Black Sea Bass FMP, it is hereby determined that the proposed actions will not significantly impact the quality of the human environment as described above and in the environmental assessment. In addition, all beneficial and adverse impacts of the proposed action have been addressed to reach the conclusion of no significant impacts. Accordingly, preparation of an EIS for this action is not necessary.

Regional Administrator for GARFO, NMFS, NOAA

Date

8.3. Endangered Species Act

Sections **Error! Reference source not found.** and **Error! Reference source not found.** contain an assessment of the impacts of the proposed action on endangered species and other protected resources. This action is not expected to affect endangered or threatened species or critical habitat in any manner not considered in previous consultations on the fisheries.

8.4. Marine Mammal Protection Act

Sections **Error! Reference source not found.** and **Error! Reference source not found.** contain an assessment of the impacts of the proposed action on endangered species and other protected species (including marine mammals). This action is not expected to affect protected species or critical habitat in any manner not considered in previous consultations on the fisheries.

8.5. Coastal Zone Management Act

The Coastal Zone Management Act of 1972, as amended, provides measures for ensuring productive fishery habitat while striving to balance development pressures with social, economic, cultural, and other impacts on the coastal zone. The Council developed this framework document and will submit it to NMFS. NMFS will determine whether the proposed actions are consistent to the maximum extent practicable with the coastal zone management programs for each state (Maine through North Carolina).

8.6. Administrative Procedure Act

Sections 551-553 of the Federal Administrative Procedure Act establish procedural requirements applicable to informal rulemaking by federal agencies. The purpose of these requirements is to

ensure public access to the Federal rulemaking process and to give the public notice and opportunity to comment before the agency promulgates new regulations.

The Administrative Procedure Act requires solicitation and review of public comments on actions taken in the development of an FMP and subsequent amendments and framework adjustments. There were many opportunities for public review, input, and access to the rulemaking process during the development of this framework. This action was developed through a multi-stage process that was open to review by affected members of the public. The public had the opportunity to review and comment on management measures during joint Council and Board meetings on December 13, 2016 in Baltimore, MD and May 10, 2017 in Alexandria, VA, as well as during a Monitoring Committee meeting on November 10, 2016 in Baltimore, MD, a Council and Commission AP webinar on November 14, 2016, a Commission AP webinar on April 19, 2017 and during four public hearings in March 2017 held by the Atlantic States Marine Fisheries Commission. The public will have further opportunity to comment on this framework document once NMFS publishes a request for comments notice in the Federal Register.

8.7. Section 515 (Data Quality Act)

Utility of Information Product

This action proposes modifications to the dates of the commercial scup quota periods. This document includes a description of the alternatives considered, the preferred action and rationale for selection, and any changes to the implementing regulations of the FMP. As such, this document enables the implementing agency (NMFS) to make a decision on implementation and serves as a supporting document for the proposed rule.

This framework document was developed to be consistent with the Summer Flounder, Scup, and Black Sea Bass FMP, the MSA, and other applicable laws through a multi-stage process that was open to review by affected members of the public. The public had the opportunity to review and comment on management measures during a number of public meetings (section 8.6). The public will have further opportunity to comment on this specifications document once NMFS publishes a request for comments notice in the Federal Register.

Integrity of Information Product

This information product meets the standards for integrity under the following types of documents: Other/Discussion (e.g. Confidentiality of Statistics of the MSA; NOAA Administrative Order 216-100, Protection of Confidential Fisheries Statistics; 50 CFR 229.11, Confidentiality of information collected under the MMPA).

Objectivity of Information Product

The category of information product that applies here is “Natural Resource Plans.” Section 8 describes how this document was developed to be consistent with any applicable laws, including the MSA. The analyses used to develop the alternatives (i.e. policy choices) are based upon the best scientific information available. The most up to date information was used to develop the environmental assessment which evaluates the impacts of those alternatives (section 7). The specialists who worked with these core data sets and population assessment models are familiar with the most recent analytical techniques and are familiar with the available data and information relevant to the scup fisheries.

The review process for this document involved Council, NEFSC, GARFO, and NMFS headquarters. The NEFSC technical review was conducted by senior-level scientists with specialties in fisheries ecology, population dynamics and biology, as well as economics and social anthropology. The Council review process involved public meetings at which affected stakeholders had the opportunity to comment on proposed management measures. Review by GARFO was conducted by those with expertise in fisheries management and policy, habitat conservation, protected species, and compliance with applicable law. Final approval of the document and clearance of the rule was conducted by staff at NOAA Fisheries Headquarters, the Department of Commerce, and the U.S. Office of Management and Budget.

8.8. Paperwork Reduction Act

The Paperwork Reduction Act (PRA) concerns the collection of information. The intent of the PRA is to minimize the federal paperwork burden for individuals, small businesses, state and local governments, and other persons, as well as to maximize the usefulness of information collected by the Federal government. This framework proposes no changes to the existing reporting requirements previously approved under the Summer Flounder, Scup, and Black Sea Bass FMPs for vessel permits, dealer reporting, or vessel logbooks. This action does not contain a collection-of-information requirement for purposes of the PRA.

8.9. Impacts of the Plan Relative to Federalism/Executive Order 13132

This framework action does not contain policies with federalism implications sufficient to warrant preparation of a federalism assessment under Executive Order (EO) 13132.

8.10. Environmental Justice/ Executive Order 12898

EO 12898 provides that “each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.” EO 12898 directs each Federal agency to analyze the environmental effects, including human health, economic, and social effects of Federal actions

on minority populations, low-income populations, and Indian Tribes, when such analysis is required by NEPA. Agencies are further directed to “identify potential effects and mitigation measures in consultation with affected communities, and improve the accessibility of meetings, crucial documents, and notices.”

The proposed action is not expected to affect participation in scup fisheries. Because the proposed action is not expected to change the current levels of participation in these fisheries, no negative economic or social effects in the context of EO 12898 are anticipated as a result. Therefore, the proposed action is not expected to cause disproportionately high and adverse human health, environmental or economic effects on minority populations, low-income populations, or Indian Tribes.

8.11. Regulatory Impact Review and Regulatory Flexibility Act Analysis

8.11.1. Introduction

This section provides analysis to address the requirements of Executive Order 12866 (Regulatory Planning and Review) and the Regulatory Flexibility Act (RFA). Since many of the requirements of these mandates duplicate those required under the MSA and NEPA, this section contains references to other sections of this document. The following sections provide information to determine if the preferred alternatives are significant under E.O. 12866 and if they will have a significant economic impact on a substantial number of small entities under the RFA.

NMFS requires the preparation of a Regulatory Impact Review (RIR) for all regulatory actions that either implement or significantly amend an FMP. The RIR summarizes the economic effects associated with a proposed or final regulatory action, provides a review of the problem to be addressed, evaluates the major alternatives that could be used to address the problem, and ensures that the regulatory agency considers all available alternatives so that public welfare can be enhanced in the most efficient and cost-effective manner. The RIR also serves as the basis for determining whether the proposed regulations are a "significant regulatory action" under E.O. 12866. The RIR in the following sections provides a comprehensive review of the expected changes in net economic benefits to society associated with the preferred alternative.

8.11.2. Regulatory Impact Review (RIR)

8.11.2.1. Description of the Fishery

Section 6.2 contains a description of the fishery affected by the proposed action.

8.11.2.2. Statement of the Problem

This framework action considers modifications to the dates of the commercial scup quota periods. The action alternatives described in this document are intended to help enable the commercial fishery more efficiently meet, but not exceed, the annual commercial quota.

8.11.2.3. Description of Alternatives

Section 5 summarizes all the alternatives considered by the Council. For the purposes of the RIR, only the preferred alternative is considered in detail in this section. The expected socioeconomic impacts of all other alternatives are described in section 7.2.

[To be updated after the Council selects a preferred alternative.]

8.11.2.4. Methodology to Evaluate Economic Impacts of Alternatives

This section evaluates the economic impacts of the preferred alternative. Potential impacts on several areas of interest are discussed in order to comprehensively evaluate the economic effects of the alternatives. The types of effects considered include changes in landings, prices, consumer and producer benefits, harvesting costs, enforcement costs, and distributional effects (NMFS 2007). Due to the lack of an empirical model for the scup fishery and limited knowledge of elasticities of supply and demand, a qualitative approach was used to evaluate the expected impacts. Quantitative measures are provided whenever possible.

Benefit-cost analysis is conducted to evaluate the net social benefit from changes in consumer and producer surpluses that are expected to occur upon implementation of a regulatory action. Total Consumer Surplus (CS) is the difference between the amounts consumers are willing to pay for products or services and the amounts they actually pay. CS thus represents net benefit to consumers. When the information necessary to plot the supply and demand curves for a particular commodity is available, CS is represented by the area below the demand curve and above the market clearing price where the two curves intersect. Since an empirical model describing the elasticities of supply and demand for scup is not available, it was assumed that the price was determined by the market clearing price, or the intersection of the supply and demand curves (NMFS 2007).

Net benefit to producers is producer surplus (PS). Total PS is the difference between the amounts producers actually receive for providing goods and services and the economic cost producers bear to do so. Graphically, it is the area above the supply curve and below the market clearing price where supply and demand intersect. Economic costs are measured by the opportunity cost of all resources including the raw materials and physical and human capital used in the process of supplying goods and services to consumers (NMFS 2007).

The law of demand states that price and quantity demanded are inversely related. Given a demand curve for a commodity, elasticity of demand is a measure of the responsiveness of the quantity that will be taken by consumers given changes in the price of that commodity, holding other variables constant. Several major factors influence the elasticity for a specific commodity.

These factors largely determine whether demand for a commodity is price elastic or inelastic⁸ and include: 1) the number and closeness of substitutes for the commodity under consideration, 2) the number of uses for the commodity; and 3) the price of the commodity relative to the consumers' purchasing power (income). Other factors may also determine the elasticity of demand but are not mentioned here because they are beyond the scope of this discussion. As the number and closeness of substitutes and/or the number of uses for a specific commodity increase, the demand for the specific commodity will tend to be more elastic. Demand for commodities that take a large amount of the consumer's income is likely to be elastic compared to services with low prices relative to the consumer's income. The availability of substitutes is considered to be the most important of the factors listed in determining the elasticity of demand for a specific commodity (Leftwich 1973, Awk 1988). Seafood demand in general appears to be elastic. Demand is elastic for most species, product groups, and product forms (Asche and Bjørndal 2003).

An increase in the ex-vessel price of a given species may increase PS. A decrease in the ex-vessel price for that species may also increase PS if it is assumed that the demand for that species is moderately to highly elastic. However, the magnitude of these changes cannot be entirely assessed without knowing the exact shape of the market demand curve for this species.

One of the more visible societal costs of fisheries regulation is that of enforcement. From a budgetary perspective, the cost of enforcement is equivalent to the total public expenditure devoted to enforcement. The economic cost of enforcement is measured by the opportunity cost of devoting resources to enforcement vis à vis some other public or private use, and/or by the opportunity cost of diverting enforcement resources from one fishery to another. Properly defined, enforcement costs are not equivalent to the budgetary expense of dockside or at-sea inspection of vessels. Rather, enforcement costs from an economic perspective, are measured by opportunity cost in terms of foregone enforcement services that must be diverted to enforcing the regulations associated with the preferred alternative.

8.11.2.5. Description of the Management Objectives

This framework action, if implemented, will be implemented under the Summer Flounder, Scup, and Black Sea Bass FMP. The management objectives of that FMP with respect to scup are to:

- Reduce fishing mortality in the scup fishery to assure that overfishing does not occur.
- Reduce fishing mortality on immature scup to increase spawning stock biomass.
- Improve the yield from the fisheries.

⁸ Price elasticity of demand is elastic when a change in quantity demanded is large relative to the change in price. Price elasticity of demand is inelastic when a change in quantity demanded is small relative to the change in price. Price elasticity of demand is unitary when a change in quantity demanded and price are the same.

- Promote compatible management regulations between state and federal jurisdictions.
- Promote uniform and effective enforcement of regulations.
- Minimize regulations to achieve the management objectives stated above.

The proposed action is consistent with, and does not modify these objectives. This action is taken under the authority of the MSA and regulations at 50 C.F.R. part 648.

8.11.2.5.1. Analysis of Alternatives

[The RIR requires analysis of the preferred alternatives. This section will be completed once the Council selects a preferred alternative.]

8.11.2.5.2. Evaluation of Significance Under E.O. 12866

[To be updated after the Council selects a preferred alternative.]

The proposed action (i.e. the preferred alternative) does not constitute a significant regulatory action under E.O. 12866. It will not have an annual effect on the economy of more than \$100 million. The change in revenues as a result of the preferred alternative is unknown, but will certainly be far below \$100 million. The total value of all commercial landings of scup in 2016 was approximately \$10.8 million, as shown in commercial dealer data.

The proposed action will benefit the economy, productivity, competition, and jobs in a material way by allowing for a slight increase in scup landings without jeopardizing the sustainability of other fisheries or creating negative impacts to other sectors of the economy. The action will not adversely affect, in the long-term, competition, jobs, the environment, public health or safety, or state, local, or tribal government communities. The action will not create a serious inconsistency or otherwise interfere with an action taken or planned by another agency. The proposed action will not materially alter the budgetary impact of entitlement, grants, user fees, or loan programs or the rights and obligations of their participants. The action does not raise novel, legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in E.O. 12866.

8.11.3. Regulatory Flexibility Analysis

The RFA requires the Federal rulemaker to examine the impacts of proposed and existing rules on small businesses, small organizations, and small governmental jurisdictions. In reviewing the potential impacts of proposed regulations, the agency must either certify that the rule “will not, if promulgated, have a significant economic impact on a substantial number of small entities” or prepare an Initial Regulatory Flexibility Analysis (IRFA). An IRFA describes the impacts of the proposed rule on small entities and is prepared when a Federal agency publishes a notice of proposed rulemaking if the agency cannot certify that the proposed rule will not have a significant impact on a substantial number of small entities. The determination of whether to certify or prepare an IRFA depends on the context of the proposed action, the problem to be

addressed, and the structure of the regulated industry. If the agency prepares an IRFA, a Final Regulatory Flexibility Analysis will be prepared when the final rule is promulgated.

8.11.3.1. Proposed Action

[To be completed after the Council selects a preferred alternative.]

There are no changes to the existing reporting requirements previously approved under this FMP for vessel permits, dealer reporting, or vessel logbooks. This action does not contain a collection-of-information requirement for purposes of the PRA. This action does not duplicate, overlap, or conflict with other Federal rules.

8.11.3.2. Universe of Regulated Entities

The RFA requires consideration of the economic impacts of proposed actions on directly affected entities. The proposed action will directly affect entities which commercially harvest scup. It will not *directly* affect seafood processors, recreational fishing entities, or other entities.

[To be completed after the Council selects a preferred alternative.]

8.11.3.3. Expected Economic Impacts

Under the RFA, effects on profitability associated with the proposed management measures should be evaluated by assessing the impact of the proposed measures on the costs and revenues for individual business entities. Changes in gross revenues are used as a proxy for profitability in the absence of cost data for individual business entities engaged in the commercial scup fishery. A number of factors influence scup landings, including quotas, prices, weather, and availability of scup and of other species harvested by the same vessels; therefore, changes in landings, and, by extension, changes in revenues, as a result of the proposed action cannot be precisely estimated. Changes in revenue are instead described in a general, qualitative sense.

[To be completed after the Council selects a preferred alternative.]

9. Literature Cited

ASMFC (Atlantic States Marine Fisheries Commission). 2002. Addendum V to the Scup Fishery Management Plan: Summer Period Commercial Scup Allocation. Available at:

<http://www.asmfc.org/species/scup>

DPSWG (Northeast Data Poor Stocks Working Group). 2009. The northeast data poor stocks working group report, part A: skate species complex, deep sea red crab, Atlantic wolffish, scup, and black sea bass. Northeast Fish Science Center Reference Document 09-02. Available at:

<http://www.nefsc.noaa.gov/publications/crd/crd0902/>.

Eno, N.C., D.S MacDonald, J.A.M. Kinnear, S.C Amos, C.J. Chapman, R.A Clark, F.P.D Bunker, Munro, C. 2001. Effects of crustacean traps on benthic fauna. *ICES Journal of Marine Science*. 58:11-20.

Gaichas, S., J. Hare, M. Pinsky, G. DePiper, O. Jensen, T. Lederhouse, J. Link, D. Lipton, R. Seagraves, J. Manderson, and M. Clark. 2015. Climate change and variability: a white paper to inform the Mid-Atlantic Fishery Management Council on the impact of climate change on fishery science and management. Second draft. Available at: <http://www.mafmc.org/eafm/>

Greene, J.K., M.G. Anderson, J. Odell, and N. Steinberg, eds. 2010. The Northwest Atlantic Marine Ecoregional Assessment: Species, Habitats and Ecosystems. Phase One. The Nature Conservancy, Eastern U.S. Division, Boston, MA. Available at: www.conservationgateway.org

Hamer, P.E. 1979. Studies of the scup, *Stenotomus chrysops*, in the Middle Atlantic Bight. New Jersey Division of Fish, Game, and Shellfish Miscellaneous Report No. 18M.

Hare, J. A., W. E. Morrison, M. W. Nelson, M. M. Stachura, E. J. Teeters, R. B. Griffis, M. A. Alexander, J. D. Scott, L. Alade, R. J. Bell, A. S. Chute, K. L. Curti, T. H. Curtis, D. Kircheis, J. F. Kocik, S. M. Lucey, C. T. McCandless, L. M. Milke, D. E. Richardson, E. Robillard, H. J. Walsh, M. C. McManus, K. E. Marancik, C. A. Griswold. 2016. A vulnerability assessment of fish and invertebrates to climate change on the northeast U.S. continental shelf. *PLOS One*. 11(2): 1-30.

Lucey, S. M. and J. A. Nye. 2010. Shifting species assemblages in the northeast US continental shelf large marine ecosystem. *Marine Ecology Progress Series*. 415: 23-33.

MAFMC (Mid-Atlantic Fishery Management Council). 1996. Regulatory Amendment to the Fishery Management Plan for the Summer Flounder and Scup Fishery. Available at:

<http://www.mafmc.org/fisheries/fmp/sf-s-bsb>

MAFMC (Mid-Atlantic Fishery Management Council). 2003. Framework Adjustment 3 to the Fishery Management Plan for the Summer Flounder and Scup Fishery. Available at:

<http://www.mafmc.org/fisheries/fmp/sf-s-bsb>

MAFMC (Mid-Atlantic Fishery Management Council). 2008. Amendment 9 to the Mackerel, Squid, Butterfish Fishery Management Plan. Available at: <http://www.mafmc.org/msb/>

MAFMC (Mid-Atlantic Fishery Management Council). 2015. 2016-2018 Summer flounder, scup, and black sea bass specifications; Environmental Assessment, Initial Regulatory Flexibility Analysis. Available at: <https://www.greateratlantic.fisheries.noaa.gov/regs/2015/November/15sfcb20162018specsprea.pdf>.

Morgan, L. E. and R. Chuenpagdee. 2003. Shifting gears: addressing the collateral impacts of fishing methods in U.S. Waters. Pew Science Series. Available at: <http://www.pewtrusts.org/en/research-and-analysis/reports/2003/05/01/shifting-gears-addressing-the-collateral-impacts-of-fishing-methods-in-us-waters>

Morse, W. W. 1978. Biological and fisheries data on scup, *Stenotomus chrysops* (Linnaeus). Northeast Fisheries Science Center Sandy Hook Laboratory Technical Series Report No. 12. Available at: <http://nefsc.noaa.gov/publications/series/shlr/>

NEFSC (Northeast Fisheries Science Center). 2010. 51st Northeast Regional Stock Assessment Workshop (51st SAW): Assessment Summary Report (2nd Edition). Northeast Fisheries Science Center Reference Document 11-01. Available at: <http://www.nefsc.noaa.gov/publications/>

NEFSC (Northeast Fisheries Science Center). 2011. 51st Northeast Regional Stock Assessment Workshop (51st SAW) Assessment Report. Northeast Fisheries Science Center Reference Document 11-02. Available at: <http://www.nefsc.noaa.gov/publications/>

NEFSC (Northeast Fisheries Science Center). 2014. 58th Northeast Regional Stock Assessment Workshop (58th SAW) Assessment Report. Northeast Fisheries Science Center Reference Document 14-04. Available at: <http://www.nefsc.noaa.gov/publications/>

NEFSC (Northeast Fisheries Science Center). 2015a. Update on the status of spiny dogfish in 2015 and projected harvests at the F_{MSY} proxy and P^* of 40%. Available at: <http://www.mafmc.org/ssc-meetings/2016/september-14-2016>.

NEFSC (Northeast Fisheries Science Center). 2015b. 60th Northeast Regional Stock Assessment Workshop (60th SAW) Assessment Report. U.S. Department of Commerce, Northeast Fisheries Science Center Reference Document 15-08. Available at: <http://www.nefsc.noaa.gov/saw/>

NEFSC (Northeast Fisheries Science Center). 2015c. 2015 NE Skate Stock Status Update. Available at: <http://www.nefmc.org/calendar/sept.-1-2015-ssc-meeting> (item 2.3).

NEFSC (Northeast Fisheries Science Center). 2016a. Scup Data Update for 2016. Available at: <http://www.mafmc.org/council-events/2016/ssc-3>.

- NEFSC (Northeast Fisheries Science Center). 2016b. Summer Flounder Stock Assessment Update for 2016. Available at: <http://www.mafmc.org/council-events/2016/ssc-3>.
- NEFSC (Northeast Fisheries Science Center). 2016c. SAW 62. A: Stock Assessment of Black Sea Bass for 2016. Draft report for peer review. Available at: <http://www.mafmc.org/council-events/2017/january-2017-ssc-meeting>
- NMFS (National Marine Fisheries Service). 2009. Amendment 1 to the Consolidated HMS FMP. Available at: <http://www.nmfs.noaa.gov/sfa/hms/documents/fmp/index.html>
- Nye, J. A., T. M. Joyce, Y.O. Kwon, and J.S. Link. 2011. Silver hake tracks changes in Northwest Atlantic circulation. *Nature Communications*. 2:412.
- Pinsky, M.L., B. Worm, M.J. Fogarty, J.L. Sarmiento, and S.A. Levin. 2013. Marine taxa track local climate velocities. *Science*. 341(6151): 1239-1242.
- Steimle, F.W, C. A. Zetlin, P. L. Berrien, D. L. Johnson, and S. Chang. 1999. Essential Fish Habitat source document: Scup, *Stenotomus chrysops*, life history and habitat characteristics. NOAA Technical Memorandum NMFS-NE-149. Available at: <http://www.nefsc.noaa.gov/publications/tm/>
- Steimle, F.W. and C. Zetlin. 2000. Reef habitats in the middle Atlantic bight: abundance, distribution, associated biological communities, and fishery resource use. *Marine Fisheries Review*. 62: 24-42.
- Stevenson, D., L. Chiarella, D. Stephan, R. Reid, K. Wilhelm, J. McCarthy, and M. Pentony. 2004. Characterization of the fishing practices and marine benthic ecosystems of the northeast US shelf, and an evaluation of the potential effects of fishing on essential habitat. NOAA Technical Memorandum NMFS-NE-181.
- Weinberg, J. R. 2005. Bathymetric shift in the distribution of Atlantic surfclams: response to warmer ocean temperature. *ICES Journal of Marine Science*. 62(7): 1444-1453.

10. List of Agencies and Persons Consulted

In preparing this document, the Council consulted with NMFS, the New England and South Atlantic Fishery Management Councils, Fish and Wildlife Service, and the states of Maine through North Carolina through their membership on the Mid-Atlantic Council and the Atlantic States Marine Fisheries Commission's Summer Flounder, Scup, and Black Sea Bass Management Board. The advice of NMFS GARFO personnel was sought to ensure compliance with NMFS formatting requirements.

Copies of the document are available from Dr. Christopher M. Moore, Executive Director, Mid-Atlantic Fishery Management Council, Suite 201, 800 North State Street, Dover, DE 19901; 302-674-2331. Once finalized, this document will be posted to www.mafmc.org.

Atlantic States Marine Fisheries Commission

ISFMP Policy Board

May 11, 2017
8:00-10:30 a.m.
Alexandria, Virginia

Draft Agenda

The times listed are approximate; the order in which these items will be taken is subject to change; other items may be added as necessary.

1. Welcome/Call to Order (*D. Grout*) 8:00 a.m.
2. Board Consent (*D. Grout*) 8:00 a.m.
 - Approval of Agenda
 - Approval of Proceedings from February 2017
3. Public Comment 8:05 a.m.
4. Update from Executive Committee (*D. Grout*) 8:15 a.m.
5. Review and Consider New Jersey Appeal of Addendum XXVIII to the Summer Flounder Fishery Management Plan **Final Action** 8:20 a.m.
6. Update on Climate Change Working Group (*T. Kerns*) 8:55 a.m.
7. Review and Discuss 2017 Commissioner Survey Results (*D. Tompkins*) 9:00 a.m.
8. Committee Report on Safe Harbor Landings (*J. Gilmore*) **Possible Action** 9:15 a.m.
9. Update on the Marine Recreational Information Program Transition of the Fishing Effort Survey and APAIS (*D. Van Voorhees*) 9:30 a.m.
10. Review and Consider Approval of Standard Meeting Practices (*T. Kerns*) **Action** 9:50 a.m.
11. Progress Update on the 2017 Sturgeon Benchmark Stock Assessment (*K. Drew*) 9:55 a.m.
12. Review and Consider Approval of the Assessment Schedule (*S. Madsen*) **Action** 10:00 a.m.
13. Standing Committee Reports 10:05 a.m.
 - Law Enforcement Committee (*M. Robson*)
 - Habitat and Artificial Reefs (*L. Havel*)
 - Atlantic Coastal Fish Habitat Partnership (*L. Havel*)
14. Review Non- Compliance Findings (if necessary) 10:20 a.m.
15. Other Business/Adjourn 10:25/10:30 a.m.

The meeting will be held at the Westin, 400 Courthouse Square, Alexandria, Virginia; 703-253-8600

Vision: Sustainably Managing Atlantic Coastal Fisheries

MEETING OVERVIEW

ISFMP Policy Board Meeting

Thursday May 11, 2017

8:00-10:30 a.m.

Alexandria, Virginia

| | | |
|---|------------------------------|---|
| Chair: Doug Grout (NH) Assumed Chairmanship: 10/15 | Vice Chair: Jim Gilmore (NY) | Previous Board Meeting: February 1, 2017 |
| Voting Members: ME, NH, MA, RI, CT, NY, NJ, PA, DE, MD, DC, PRFC, VA, NC, SC, GA, FL, NMFS, USFWS (19 votes) | | |

2. Board Consent

- Approval of Agenda
- Approval of Proceedings from February 1, 2017

3. Public Comment – At the beginning of the meeting public comment will be taken on items not on the agenda. Individuals that wish to speak at this time must sign-in at the beginning of the meeting. For agenda items that have already gone out for public hearing and/or have had a public comment period that has closed, the Board Chair may determine that additional public comment will not provide additional information. In this circumstance the Chair will not allow additional public comment on an issue. For agenda items that the public has not had a chance to provide input, the Board Chair may allow limited opportunity for comment. The Board Chair has the discretion to limit the number of speakers and/or the length of each comment.

4. Executive Committee Report (8:15-8:20 a.m.)

Background

- The Executive Committee will meet on May 10, 2017

Presentations

- D. Grout will provide an update of the committees work

Board action for consideration at this meeting

- none

5. Review and Consider New Jersey Appeal of Addendum XXXVIII to the Summer Flounder Fishery Management Plan (8:20-8:55 a.m.) Final Action

Background

- Summer Flounder Addendum XXVIII was approved in February 2017 (**briefing materials**). The addendum established a regional management approach for the recreational summer flounder fishery in 2017.
- New Jersey is appealing the approval of the addendum (**briefing materials**).
- Following the Appeal Process (briefing materials), Commission leadership reviewed the appeal and determined the appeal should be considered by the ISFMP Policy Board under criterion 2, failure to follow process, specifically New Jersey's claim regarding the error in the text of the Draft Addendum (**briefing materials**).

Presentations

- T. Kerns will present a background on the development of the management program as well as a summary of the justification provided in the record for the management board's action. The ISFMP Director will also present the potential impacts of the appeal on other affected states
- New Jersey will present their rationale for appealing the decision under criterion 2, specifically New Jersey's claim regarding the error in the text of the Draft Addendum, and provide a suggested solution.

Board discussion for consideration at this meeting

- Consider the Appeal of Addendum XXVIII to the Summer Flounder FMP

6. Update on Climate Change Working Group (8:55-9:00 a.m.)**Background**

- The Climate Change Work Group was tasked with developing science, policy and management strategies to assist the Commission with adapting its management to changes in species abundance and distribution resulting from climate change impacts.
- In fall of 2016 the Work group met via conference call to brainstorm how to address the Policy Board task.
- On January 2017 the working group met to make recommendations to include in the white papers to address the Policy Board task
- In May the working group met to continue to develop drafts of science and policy white papers.

Presentations

- T. Kerns will review the Climate Change Workgroup Progress

Board action for consideration at this meeting

- none

7. ASMFC Commissioner Survey Results (9:00-9:15 a.m.)**Background**

- The Commissioners completed a survey of Commission performance for the eighth year as included in the ASMFC Action Plan (**briefing materials**)
- The survey measures the Commissioners' opinions regarding the progress and actions of the Commission in the previous year

Presentations

- D. Tompkins will present a summary of the survey results highlighting significant changes from previous years' surveys

Board actions for consideration at this meeting

- Determine if any action is required given the survey results

8. Committee Report on Safe Harbor Landings (9:15-9:30 a.m.) Possible Action

Background

- New York has developed a guidance document for vessels requesting safe harbor landings in New York.
- A subcommittee met to review other state practices related to safe harbor and safe harbor landing practices. The subcommittee suggested a guidance document be drafted for states to assist in setting guidelines for safe harbor and quota transfers related to safe harbor (**supplemental materials**).

Presentations

- J. Gilmore will present the recommendations from the subcommittee.

Board action for consideration at this meeting

- Consider establishing general guidelines for safe harbor and quota transfers related to safe harbor

9. Update on Marine Recreational Information Program Transition of the Fishing Effort Survey and APAIS (9:30-9:50 a.m.)

Background

- A study indicated mail based surveys do a better job than the current Coastal Household Telephone Survey (CHTS) to capture recreational fishing trips (fishing effort) by reaching a broader population of anglers, getting more accurate information from respondents, and delivering higher response rates. NOAA Fisheries developed a Transition Plan to move from the CHTS to mail based survey. The FES Transition Plan ensures the new numbers are incorporated into stock assessments and management in a timely fashion, but also in a way that is scientifically sound, statistically robust, and ensures the sustainability of recreational fishing.

Presentations

- D. Van Voorhees will present an update on the progress of the MRIP transition and the APAIS calibrations

Board action for consideration at this meeting

- None

10. Review and Consider Approval of Standard Meeting Practices (9:50-9:55 a.m.) Action

Background

- Following Commissioner training on meeting practices, the Policy Board directed staff to develop draft operating procedures to make Commission meetings more effective and efficient.
- The draft standard meeting practices were reviewed by the Executive Committee and recommended for consideration by the ISMFP Policy Board (**briefing materials**).

Presentations

- T. Kerns will present the SOPPs

Board action for consideration at this meeting

- Approve the Standard Meeting Practices

11. Progress Update on the 2017 Sturgeon Benchmark Stock Assessment (9:55-10:00 a.m.)**Background**

- The Benchmark stock assessment for sturgeon is schedule to undergo peer review in the fall of 2017.

Presentations

- K. Drew will present a progress report for the assessment

Board action for consideration at this meeting

- None

12. Review and Consider Approval of the Assessment Schedule (10:00-10:05 a.m.) Action**Background**

- The ASC has recommendations to the ISFMP Policy Board regarding the ASMFC Stock Assessment Peer Review Schedule (**briefing materials**).

Presentations

- S. Madsen will review the stock assessment schedule

Board action for consideration at this meeting

- Approve the stock assessment schedule

13. Standing Committee Reports (10:05-10:20 a.m.)**Background**

- The Law Enforcement Committee met on May 9, 2017.
- The Habitat Committee met on May 2-3, 2017
- The Artificial Reef Committee met on February 7-8, 2017 with the Gulf States Marine Fisheries Commission's Artificial Reef Committee
- The Atlantic Coastal Fish Habitat Partnership met on May 4-5, 2017.

Presentations

- An overview of LEC activities will be presented by M. Robson and an overview of Habitat Committee, Artificial Reef Committee and the ACFHP will be presented by L. Havel

Board action for consideration at this meeting

- None

9. Review Non-Compliance Findings (if necessary) Action**10. Other Business****11. Adjourn**

**DRAFT PROCEEDINGS OF THE
ATLANTIC STATES MARINE FISHERIES COMMISSION
ISFMP POLICY BOARD**

**The Westin Alexandria
Alexandria, Virginia
February 1, 2017**

These minutes are draft and subject to approval by the ISFMP Policy Board
The Board will review the minutes during its next meeting

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INDEX OF MOTIONS

1. **Approval of Agenda by Consent** (Page 1).
2. **Approval of Proceedings of October 2016 by Consent** (Page 1).
3. **Move to complement the NMFS implemented management measures with regard to the blacknose shark possession limit south of 34°00' N latitude for the 2017 fishing year** (Page 10). Motion by Dr. Michelle Duval; second by Pat Geer. Motion carried (Page 11).
4. **On behalf of the Atlantic Herring Section, move that the Commission write a letter to the GARFO Office requesting that the states of Maine, New Hampshire, and Massachusetts be granted access to the VMS pre-landing report** (Page 12). Motion by Ritchie White. Motion is approved by unanimous consent (Page 13).
5. **Move that the ASMFC explore moving forward with an external stock assessment and peer review for summer flounder for 2018 management use** (Page 20). Motion by Adam Nowalsky; second by Emerson Hasbrouck. Motion carried (Page 24).
6. **Motion to adjourn** by Consent (Page 24).

ATTENDANCE

Board Members

| | |
|--|--|
| Terry Stockwell, ME, proxy for P. Keliher (AA) | Andy Shiels, PA, proxy for J. Arway (AA) |
| Steve Train, ME (GA) | Loren Lustig, PA (GA) |
| Dennis Abbott, NH, proxy for Sen. Watters (LA) | John Clark, DE, proxy for D. Saveikis (AA) |
| Doug Grout, NH (AA) | Craig Pugh, DE, proxy for Rep. Carson (LA) |
| Ritchie White, NH (GA) | David Blazer, MD (AA) |
| Raymond Kane, MA (GA) | Rachel Dean, MD (GA) |
| Dan McKiernan, MA, proxy for D. Pierce (AA) | Ed O'Brien, MD, proxy for Del. Stein (LA) |
| Eric Reid, RI, proxy for Sen. Sosnowski (LA) | Rob O'Reilly, VA, proxy for J. Bull (AA) |
| Jason McNamee, RI, proxy for J. Coit (AA) | Michelle Duval, NC, proxy for B. Davis (AA) |
| David Borden, RI (GA) | David Bush, NC, proxy for Rep. Steinburg (LA) |
| Mark Alexander, CT (AA) | Robert Boyles, SC (AA) |
| Lance Stewart, CT (GA) | Malcolm Rhodes, SC (GA) |
| James Gilmore, NY (AA) | Pat Geer, GA, proxy for Rep. Nimmer (LA) |
| Emerson Hasbrouck, NY (GA) | Kathy Knowlton, GA, proxy for S. Woodward (AA) |
| John McMurray, NY, proxy for Sen. Boyle (LA) | Jim Estes, FL, proxy for J. McCawley (AA) |
| Russ Allen, NJ, proxy for D. Chanda (AA) | Martin Gary, PRFC |
| Chris Zeman, NJ, proxy for T. Fote (GA) | Sherry White, USFWS |
| Adam Nowalsky, NJ, proxy for Asm. Andrzejczak (LA) | Mike Ruccio, NMFS |

(AA = Administrative Appointee; GA = Governor Appointee; LA = Legislative Appointee)

Ex-Officio Members

Staff

| | |
|--------------|---------------|
| Bob Beal | Ashton Harp |
| Toni Kerns | Shanna Madsen |
| Max Appelman | |

Guests

| | |
|------------------------------|--|
| Tom Baum, NJ DFW | Jeff Kaelin, Lund's Fisheries |
| John Bullard, NOAA | Phil Kline, Greenpeace |
| Peter Burns, NOAA | Aaron Kornbluth, PEW |
| Jeff Deem, VMRC | Ben Landry, Omega Protein |
| Monty Diehl, Omega Protein | Wilson Laney, USFWS |
| Matt Gates, CT DEEP | Arnold Leo, E. Hampton, NY |
| Shaun Gehan, Gehan Law | Jack McGovern, NOAA |
| Zach Greenberg, PEW | Cheri Patterson, NH F&G |
| Marin Hawk, MSC | Tara Scott, NOAA |
| Larry Herrighty, NJ DFW | Jack Travelstead, CCA |
| Peter Himchak, Omega Protein | Kate Wilke, TNC Falls Church, VA |
| Ken Hinman, Wild Oceans | Luis Leandro, Marine Mammal Commission |

The ISFMP Policy Board of the Atlantic States Marine Fisheries Commission convened in the Edison Ballroom of the Westin Hotel, Alexandria, Virginia, February 1, 2017, and was called to order at 12:44 o'clock p.m. by Chairman Douglas E. Grout.

CALL TO ORDER

CHAIRMAN DOUGLAS E. GROUT: Good afternoon. I hope you've had an opportunity to get some of this great lunch that Laura put forward for us. I know the desserts were fantastic too. You might want to grab one before we start here. I would like to at least start through the process here.

APPROVAL OF AGENDA

CHAIRMAN GROUT: The ISFMP Policy Board, again we have an agenda here. There are a couple of things that we've been asked to add to other business. The Herring Section will have a request for approval of a letter to be written. Adam Nowalsky would like to have a discussion about the summer flounder assessment, and Shanna will be giving a brief revised timeline for the Risk and Uncertainty Workshop that we were considering at the spring meeting.

Are there any other agenda items, changes to the agenda that people would like to add, modify? Seeing none; is there any objection to approving the agenda as modified? Seeing no objection the agenda is approved by unanimous consent.

APPROVAL OF PROCEEDINGS

CHAIRMAN GROUT: In your briefing materials there are proceedings from the October, 2016 Policy Board, are there any changes or additions to those proceedings? Seeing none; is there any objection to approving the proceedings? Seeing no objection the proceedings are approved by unanimous consent.

PUBLIC COMMENT

CHAIRMAN GROUT: We also have an agenda item now for public comment for items not on the agenda. I have a Luis Leandro from the Marine Mammal Commission that has asked for a few minutes to talk to the Policy Board about the Marine Mammal Commission's meeting that is going to be coming up. Luis.

MR. LUIS LEANDRO: Good afternoon everyone. My name is Luis Leandro; I am the Director of Communications for the Marine Mammal Commission. We're a small independent government agency located here in the D.C. area; with oversight role over the Marine Mammal Protection Act.

In essence what we do is we review and comment on proposed actions by federal agencies such as NOAA that could impact marine mammals and the marine environment at large. For example, one of the areas that we focus on is fisheries. We participate in all seven of the National Marine Fisheries Services Take Reduction Teams.

Our focus is very much to support sustainable fisheries practices. We care deeply about this issue. We understand that fishing activities sometimes interact with marine mammal activities; and our focus is to minimize those interactions whenever possible. One of the issues that we focus on for example is addressing marine mammal bycatch on the global front. We realize this is a big problem, and we work with the National Marine Fisheries Service and others to look for solutions.

We very much support the idea of leveling the playing field for U.S. fishermen. We recognize that in the United States we've done a fantastic job frankly; dealing with marine mammal bycatch. But globally it is still a big problem, and so that is an area that we focus on. But the real reason why I'm here is to encourage you to participate in our upcoming annual meeting.

Every year we have a public stakeholder annual meeting to bring together folks at the table to discuss regional issues of importance; again that are related to marine mammals. The results of these annual meetings are usually a list of recommendations that we provide to other federal agencies as well as Congress; to take action on particular issues.

Our focus is very much on the science, we're very much science based. This year in particular we're going to be focusing in the New England region, so our annual meeting is proposed to be April 5th through 7 in the Woods Hole area. We're finalizing the agenda as we speak; we're just waiting to see what happens with the remaining of the fiscal year '17 budget. But we hope we can pull this together, and we would love to see you there.

Two agenda items that we thought would be of interest to the Commission, one is interactions between North Atlantic Right Whales and fishing activity. In addition to having NOAA Fisheries folks there, we hope to bring folks from the Canadian government also to participate in that discussion; as well as of course hopefully some of you and others from the fishing industry.

We will also be having a discussion about recovery populations of marine mammals; particularly gray seals in the New England area, and again discuss the issue, look for potential solutions, and collectively develop a list of recommendations that we can help advance. Thank you for the time. I very much appreciate you listening.

I've distributed business cards and a one pager about us; with a save the dates for the meeting. Please feel free to reach out to me if you have any questions, and we hope that some of you will consider joining us if we can put together this annual meeting in April. Thank you, Mr. Chairman.

EXECUTIVE COMMITTEE UPDATE

CHAIRMAN GROUT: Okay, we will now move on to our next agenda item, which is an update that I'll provide, of our Executive Committee meeting this morning. We reviewed and approved the fiscal year 2016 audit. We also approved a document called standard meeting practices. This is something that came out of our meeting management seminar with Collette last year; where she made some suggestions on how to make us a more efficient and effective Commission.

We will be bringing that document to the Policy Board in the spring. We also had a report from the Atlantic Coastal Statistics program from Mike Cahall. It appears that our integration of ACCSP into ASMFC is moving along quite smoothly, and there are a lot of great activities that are moving along at a rapid pace here to improve our fisheries dependent data collection. The Executive Committee also discussed the concept of Boards versus Sections. Sections are created under Amendment 1 to the Compact. We had a discussion as to whether Sections are even needed any more; and the prevailing sentiment that we should have things remain as is. We are going to continue to have the two Sections, the Shrimp Section and the Herring Section continue forward. Under other business, we also approved guidelines for state housed employees of the Commission. Emerson, we also had a discussion of advisory panels and Board membership. We're going to be developing a white paper to try and have a further discussion on this item.

Finally, John Bullard, our Regional Administrator from GARFO provided us an update on the potential new administration officials and also a list of the acting officials at NOAA level, and at the National Marine Fisheries Service level. Are there any questions about the Executive Committee?

**DISCUSSION OF ILLEGAL FISHING ACTIVITIES
AND POLICIES FOR HOW IT IMPACTS QUOTAS**

CHAIRMAN GROUT: Seeing none, we'll now move on to Agenda Item 5; Discuss Illegal Fishing Activities and Policies for How it Impacts Quotas. Jason McNamee asked to speak to this.

MR. JASON McNAMEE: I'm just going to give kind of a brief intro as to why I had asked Toni and Bob to put this on the agenda. Then I think Toni has pulled together some info, so I'll pitch it over to her. But just to set it up. We had had some illegal harvest of striped bass that occurred a couple years ago.

Trying to figure out where to park those fish and I talked with the Commission about it, and told them that we thought we could accommodate it in our commercial quota. They said that's perfectly fine. We did that. Now please understand it was not that many fish, I guess in a relative sense, so it kind of worked.

Through time though we became aware that this was not a standard practice or a policy in that people did different things or nothing at all with fish that were seized. I understand that there is a lot of difficulty with when the legal process is underway and all that sort of thing. But in the end there are dead fish, there are removed fish that can be counted. They should be accounted for in some way, shape or form.

I am also aware that some of the – I'll call them busts just to sound cool like we're on TV – that have occurred have been massive, and would wipe out a state's whole quota and that sort of thing. It is not an easy thing by any stretch, but I think there should be some standardized approach to how we deal with it. That is what I was hoping to start to generate that discussion, maybe put together a working group to kind of put together some ideas and go from there. I think Toni's got a little bit of info for us to take a look at.

MS. TONI KERNS: In looking in to this, and originally I thought I would be able to pull together a white paper on illegal harvest, but there are so many unknowns that I really didn't have enough information to get into the meat of a white paper on this. As Jason just went over, illegal harvest does occur in both commercial and recreational sectors; but there are no standard practices and policies on how to treat those fish.

Some of the questions that came to mind when I was thinking about this was how does a state define illegal harvest? Taking that definition to both how do you define it in the commercial sector and how do you define it in the recreational sector; and it may be a little bit different. Because in thinking about it in the recreational sector, you have illegally harvested fish outside of a season let's say that may not get counted into an MRIP survey. But you also have illegally harvested fish in the sense of it is within the season, but it's below size limit or above the bag limit. Those fish could potentially be intercepted by MRIP. There is the question of, for the recreational sector how does it get counted? Does it get intercepted? Is there a possibility for it or not? Then are there other ways that you could define illegally harvested fish? How does an illegal harvest count against a state's overall quota?

Does the same practice occur for both sectors? Then, if illegal harvest is not being accounted for against a state's quota, does it get reported as landings for the stock assessment or not? These are some of the questions that I first started thinking about when Jason approached me on this subject.

As I went forward I saw that there are definitely not common practices across all the states, and oftentimes some of the excessively large harvest, as Jay pointed out, is so far above a state's quota that in some cases the state wouldn't have any quota if they had to count it against their quota for years. The question to the Policy Board is, is there an interest in

discussing some sort of standard practice for what could happen to illegal harvest moving forward?

CHAIRMAN GROUT: Are there any questions on this? What does the Board think? Is this something that we should try to put together a subcommittee to try and bring back something? Mike.

MR. MIKE RUCCIO: While I have the microphone let me explain why I'm here, I guess. Most of you know Kelly Denit was promoted, and now is the Chief of the Domestic Fisheries Division for the agency. I'm actually working out of Silver Spring for three months; backfilling for her. Most of you know me from GARFO.

But I'm filling in Kelly's old job, and whenever we have the hiring freeze lifted, hopefully be a permanent person that is here. Anyway, thanks for that; letting me go that aside. I really appreciate this being brought up. I do think it's something that we would be interested in trying to develop collaboratively, particularly for the FMPs that we have state quotas.

There is always this question of how disposition of catch should be handled. I would encourage if there is a working group though, to coordinate through the Law Enforcement Committee and/or NOAAs LOE; because I think there are often because of the judicial process, it is not always even clear when fish is illegal, because sometimes due process has to occur to make that determination.

That raises another series of questions as to what disposition of catch is that it has to be held for a while before decisions are made. But I really appreciate this being brought up. I think that having a standardized policy where it is possible would be a benefit to us all.

CHAIRMAN GROUT: John.

MR. JOHN CLARK: Toni, was the consideration brought up that if it was to count against the quota that it would almost be penalizing states for doing a good job of enforcement?

CHAIRMAN GROUT: I think that's part of something that a subcommittee should discuss, and have part of the discussion here. Some of my questions for Toni and Jay are it was mentioned by Mike that we should include Law Enforcement on this subcommittee. Should we have this at the Commission level or would something say at the mid manager level, like Management and Science Committee be able to address this, along with maybe a commissioner or two? Do we need stock assessment biologists on it?

MS. KERNS: I don't know what level. At your individual states, who is the most informed of how these illegal harvests are being treated? Who knows that and who is the best person to talk about that issue? I don't know if it is your management and science person or not. That would be a question to the Board.

I don't think we would need Assessment Science Committee at least at the beginning. I mean I think that in any assessment having the best understanding of what catch is, is the best for an assessment; and we know that up front. Having illegal harvest that doesn't get reported and doesn't feed into assessment, then just adds to the uncertainty surrounding that assessment. I think that that is pretty standard practice.

CHAIRMAN GROUT: Okay I have a number of people. I'll start with Jay and I'll start working around the Board.

MR. McNAMEE: You can go to the other folks, Doug.

CHAIRMAN GROUT: Right then I'll go; go ahead.

MR. DAN McKIERNAN: I think you're going to find you're going to have a collection of stories

that come out from every state. There are going to be examples that are across the spectrum. I think you need to inventory the states. I think every state should probably have an opportunity to enter the conversation; because in some cases the law enforcement officers are supervised by the state directors, in some cases they're not.

Even within my state, Massachusetts, we've had some really interesting cases of illegal harvest; where law enforcement did a great job, and in some cases we did actually apply it to the quota, because it was a dealer who was moving the fish to New York and it was in commerce. We shut the fishery down early, and we also revoked his permit; and he is not in the business anymore. It is a case-by-case basis that I think is worthy of discussion for sure. But I think each state needs to come forward and kind of share their experiences.

CHAIRMAN GROUT: Adam, did you have your hand up?

MR. ADAM NOWALSKY: Yes. I appreciate the sentiment of a working group. It certainly served us well in a number of areas. There are so many issues associated with this that I'm not sure it's going to inform us to come up with a bullet point of two or three very specific things what to do with it. When I think of illegal harvest there are a number of areas of concern that we have with it, obviously one is just purely an accounting basis.

That is certainly I think something that maybe a working group could work on; how do we account for it in our year end accounting? But there are a lot of other issues that I think are primarily state and species specific. I don't think there would be a one-size-fits-all policy. But I do think the one-size-fits-all policy we could consider as a group, would be passing that along and ensuring it's in a term of reference in all of our stock assessments to ask that those stock assessments do, if cannot directly account for it, provide some

information that helps inform our actions about it. I think that would be a one-size-fits-all policy. Again there is species-by-species, the Tautog Board is taking this on with a unique way of trying to address it there; certainly a big issue. But there are many facets of it. Again, stopping it, accounting for it, and then addressing it in stock assessments I think are three very different things; and could potentially be dealt with three different ways.

CHAIRMAN GROUT: Ritchie.

MR. G. RITCHIE WHITE: I kind of see this in two parts. The first would be to get the information back from the states as to how the individual states are handling it now. Then the second part would be what do we do with that? Do we want to form policy or make any changes? I would think staff might be the better way to go to collect that information, and then maybe report back to this Board. Then this Board can decide what the next step should be.

CHAIRMAN GROUT: Jason.

MR. McNAMEE: I appreciate all the discussion. I think this is a good step forward. I think just to tag onto what Ritchie was just saying. Along with the different policies of what's happening in the states, trying to get at least the last year's magnitude of some of the things. That would be a useful exercise for the states; I think to see where they have to go to get this information.

My sense is in some cases there is a solid number; we seized this many fish. We gave it to a food pantry or something like that. In other cases I think the fish just disappear off into the ether, and so getting a handle on that I think will be important as well. Then to jump onto the thought process that Adam was having.

That is kind of like how I was thinking about it as well. This could end up being like another category. We have harvest, we have discards, and this could be like a third category; you

know from that high level stock assessment view. I think there are some things that we could do here, to make sure we're accounting for them without being punitive or anything like that.

CHAIRMAN GROUT: Okay is there any other discussion on this or questions? What I'm going to propose, and I think it was a good suggestion, is that initially we poll the states to see how they are handling this in their individual states at this particular point in time. Then once we get that information back, we'll bring that back in the form of I guess a white paper; or just a report on that.

Then we'll talk about the best way to move forward and having a discussion about how to account for the illegal activities, how it's accounted for in stock assessments, and see if there is some kind of standard way in which we want to move forward; or whether it's something that we have to be nimble and be unique about, depending on the circumstances.

Does that seem like an appropriate way forward from the Board? Is there any objection to moving forward that way? Okay thank you for that discussion. Thank you for bringing it up, Jay.

**DISCUSSION OF POSSIBLE POLICY
IMPLICATIONS INVOLVING THE SAFE HARBOR
LANDINGS GUIDANCE DOCUMENT**

CHAIRMAN GROUT: The next item on our agenda is Discuss a Possible Policy Implications of Safe Harbor Landings Guidance Document; and Jim Gilmore is going to lead this discussion.

MR. JAMES GILMORE, JR.: Today really, we would just like to get some dialogue going on this. I'll give you a little history of how we got to this point. Over the last, I guess couple years; we've actually had two instances of safe harbor issue. If you go back to the first one, our policy at that point was really a judgment call; based upon law enforcement and staff.

That one turned out to be a bit of a mess, because first off there was, essentially a fisherman came in that we actually didn't believe had a safe harbor issue; but when he came in law enforcement tried to deal with him; and then he essentially offloaded his fish and sold them before anything could be done.

They ticketed him. The state that he was actually going to would not give a transfer. We ended up having the landings taken off of our quota. Then when they actually got to court, the thing got thrown out; because there was no written policy. That first episode was not very productive for anyone.

What we did is about a year ago we came up with a written policy, which is in your briefing materials. This was a combination of law enforcement, us, we sat with industry and got some information about what conditions would be an emergency at sea; because we wanted to make sure that there was some measure that if we did get into a situation again, we could at least bring that into court or whatever.

The second time it happened, it worked pretty well. It was documented, it followed this guidance. The law enforcement agreed it was a safe harbor issue. The recipient state or I guess the state where the fisherman had a permit from was Virginia. Virginia very graciously agreed to do the transfer.

It was a love fest. We got the fishermen back; he got to sell his catch down in Virginia, so everything worked out very well. However, it did raise a whole lot of questions, because the entire thing was quite ad hoc. There were several decisions that had to be made, not only in New York but the other state.

What I wanted to do is just raise the question now. Do we need something a little more formal than we have, because it is involving multiple states? What I would like to do is I just have three questions to raise, to consider. In the situation, and again I'll just refer to the

most recent one. It appears that both states, do both states need to agree that a safe harbor condition exists?

If we have different policy or guidance whatever, if they're not the same we may not agree that safe harbor exists. Secondly, the quota transfer is pretty important with this whole thing. Do we need something, more of a, not a formal agreement but something more of a gentlemen's agreement that there will be a transfer; if indeed it is identified as an actual safe harbor situation.

The last one, which we were struggling with in New York is, if we do allow say a fisherman to land in New York that was supposed to go to Virginia, does he have to truck his fish back to Virginia; or can he sell them locally? That raised issues about interstate commerce or whatever. Those are the three questions that came up from this last episode. I just wanted to put that out, have some discussion on it and just to answer questions. Do we need something a little more formal or a little bit more consistent among the states under our safe harbor concerns?

CHAIRMAN GROUT: Dave.

MR. DAVID V. D. BORDEN: I totally agree with Jim. I think it would be desirable to have kind of a generic policy that all of the states could use. I just point out that at our last meeting I attended the Enforcement Session where this was discussed. I mean there were a lot of good ideas that came out of the Enforcement Committee at that meeting.

I don't whether there is a written record of it or not, but I think it would be really useful to have a generic policy that all of the states could follow. I think the other suggestion is I think we should seek the guidance of our Enforcement Committee on some of the provisions of it. I totally agree with the need for this.

CHAIRMAN GROUT: Robert, Rob.

MR. ROB O'REILLY: Both apply, thank you, Mr. Chair. I don't know whether we're a model, but we've been having this policy for quite some time. It starts out that the state whose vessel it is, the state personnel contact us in Virginia and request safe harbor. As soon as that's approved by the Commissioner of the Agency, then law enforcement is notified.

They know that there is a vessel that is under safe harbor, because there is no offloading whatsoever. A subsequent contact from the state whose vessel it is, will often say, probably I would say 85 percent of the time, 90 percent of the time that there is also request to offload; because the vessel is severely impaired, the fish may spoil, you know that type of an approach.

Then that goes through the same situation, where when it is in our state, where law enforcement is notified. The Commissioner has approved, everyone is notified, the buyer is notified in Virginia, and North Carolina in this case has had several of these. But also New York, Massachusetts, other states, and it seem to work just fine; because everyone is aware of what's occurring.

We haven't really been in the situation where we've doubted safe harbor, but we did have an occasion where someone, where for a little while when this was early on in the process, so probably the early 2000s. Where we had a vessel who just automatically assumed that the vessel could have safe harbor, and of course that was quickly approached by law enforcement and got straightened out.

As far as the interstate commerce, I wasn't quite sure how that works; because it would be expected that when you transfer the quota then it belongs to the state it is transferred to. If a New Jersey vessel seeks safe harbor in Virginia, and then subsequently there's a request from the state of New Jersey to have the offloading, there is a transfer of quota that is set in order. That quota is now Virginia quota, essentially;

and it works the other way around as well, in the case of what Jim was saying.

DR. MICHELLE DUVAL: I definitely appreciate Jim's work in putting this together. As Rob has alluded to, this is certainly reflective of many of the elements that have developed over the years between Virginia and North Carolina, in terms of quota transfers; with regard to contacting the agency to obtain permission to offload fish in another state, and sending us required documentation. We require a Coast Guard Marine Casualty Form, and information from a mechanic or someone; just to make sure that we're granting this because there is really a need to do so. Definitely like the definitions of the different types of reasons for which quota transfer might be allowed to occur, or reasons for doing so; the definition of the declared circumstances, I guess.

I was just curious, Jim, if you guys worked with industry at all in developing some of these things. I know that we had a lot of conversation back and forth with industry, when we were trying to put something down on paper; when we were having some frequent transfers of summer flounder quota to Virginia. That's just one question.

Then I think the other question I have is the weather condition criteria. I'm just wondering if you applied that at all before, in terms of forecasted weather conditions and how far out, you know you allow for that. I mean if everybody looks at the forecast, and presumably captains are doing the same thing; to you know determine their sail plan. I was just curious about that as well.

Then I guess the only other thing I'll add to, with regard to what Rob said was that when we transferred quota to Virginia to cover some of these safe harbor issues in the past, the Virginia dealers have sold those fish; so I don't think it ever crossed our minds to require that fish be trucked back to the state. It becomes the receiving state's quota, I guess.

MR. GILMORE: Yes Michelle, first off we had two meeting sessions with the commercial fishermen to get their input, and then after we developed a draft on this we gave it back to them. Actually, part of the reason to your second question was really the weather part of it was a little bit more difficult to capture.

It actually turns out that the first episode where we didn't have a good outcome to it was the weather conditions actually weren't that bad. Actually there was a federal observer onboard too, and we felt that that was probably a good example to set where maybe the limit was. But again, we've got most of that information for both weather and the conditions came from the fishermen; at least in consultation with them.

The weather part of it is difficult, because one man's storm is another man's regular day out at sea. Again, we deferred mostly to the industry to let them define that; and of course it is actually subject to change if somebody thinks that it's too restrictive or it should be more restrictive. But again that is something we felt was appropriate, and it worked pretty well the one time we've used it so far.

MR. MCKIERNAN: We in Massachusetts have had a number of cases where there has been vessel breakdown or injury to crew or captain; and we've worked with North Carolina and Virginia, and we've supplied the Coast Guard or required a Coast Guard report, et cetera about the incident. As a result they've transferred the quota to us as they could.

But I just want to point out that at the Law Enforcement Subcommittee meeting, the most recent one, they pointed out to us that technically safe harbor means yes, come on in because it's rough out; but you're still going to leave with the fish. For example, in January in Massachusetts, our fluke limit is zero. If someone is fluke fishing and it's rough, they can have safe harbor, they can bring it into a port, and they call ahead and they can't unload it. Really what we're talking about is unloading fish

in a state for which the amount should be attributed to another state. But the true safe harbor policies are yes, come on in, but you've got to take your fish with you when you leave.

MR. STEPHEN TRAIN: I am trying to avoid entering this debate, but there was something that made me a little bit nervous, and that would be a policy where somebody ashore would tell a captain whether it was too rough to come in or not. I mean as was just stated earlier, it is pretty hard to say whether you thought it was bad weather or not. But if the captain of the vessel doesn't believe he belongs out in it, it is unsafe weather; and that shouldn't be determined by someone on land, ever.

DR. DUVAL: That speaks to another question I had forgotten to ask Jim. I didn't know when you guys were talking about the weather situation, whether or not there had been any conversation with the Coast Guard about criteria for weather. I think Dan touched on a really important point, and that is safe harbor is a tool that is always available.

What we're trying to address here is conditions under which transfer of quota would be allowed to another state. Hopefully that gives Steve a little bit of ease. But I was just curious if there had been any conversations with the Coast Guard; in terms of weather.

MR. GILMORE: Yes, my understanding is our law enforcement guys dealt with the Coast Guard to discuss part of that defining the weather conditions. To Steve's point, we actually talked about that Steve, and we were trying to say not to take that away from the captain. It was to give them guidance.

If you're coming in, if all these conditions are met, you're probably going to be able to offload and do everything else. If it's not but you still feel it is unsafe, it's just that you may not be able to transfer and get all the economic benefits of it. But again you're right. It is not

designed to usurp the authority of the captain; in terms of a safe condition at sea.

CHAIRMAN GROUT: Further discussion? Jim, would you like to lead a subcommittee on this; where you would coordinate also with law enforcement to develop a draft policy?

CHAIRMAN GILMORE: It was the reason I almost didn't put this on, because I figured it was going to get to that. But yes, I will do that Mr. Chairman.

CHAIRMAN GROUT: At this point are there other commissioners that would like to be on this? Dave Borden, Dan McKiernan, Russ, and Michelle, I think that's a good subcommittee. Okay thank you for bringing that up, Jim. I think it's an important topic and I think we should see if we can develop a draft policy. I assume you would be reporting back to the Board; either in May or sometime during the summer, depending on how long you work.

CLIMATE CHANGE WORKING GROUP UPDATE

CHAIRMAN GROUT: Next item on the agenda is an Update on the Climate Change Working Group. Last spring I asked for volunteers for a working group to develop science policy and management strategies to assist the Commission with adapting its management to changes in species abundance and distribution resulting from a climate change impacts. We have had a conference call last fall, and just before this meeting we had a face-to-face meeting. We had a very productive meeting. We are in the process of trying to develop a white paper with policies that the ISFMP Board would be able to look at and consider whether they would like to move forward with implementing those policies. We're still in the process of putting that together. We anticipate that we'll have at least one more meeting prior to our spring meeting; and then possibly have something for you all to look at by the summer meeting.

COASTAL SHARKS UPDATE

CHAIRMAN GROUT: Are there any questions? Seeing none; we're moving right along here. Ashton, we have a couple of coastal sharks update, and just so that folks are aware, one of these is going to require final action and a motion. For those of you who are on the Coastal Sharks Board, I appreciate your help in moving this motion forward.

MS. KERNS: Just so everybody knows the reason why this is on Policy Board and not a Coastal Sharks Board is the final action from Highly Migratory Species didn't occur until after we had set the schedule.

COMMERCIAL POSSESSION LIMIT FOR BLACKNOSE SHARK

MS. ASHTON HARP: I would just like to make the Board aware of a new blacknose possession limit. Last year NOAA Fisheries published a final rule establishing a commercial retention limit of eight blacknose sharks for all limited access permit holders, in the Atlantic region south of 34° north latitude; and this was effective January 13th of 2017. Previously there was no possession limit for the blacknose sharks.

As specified in Addendum II to the coastal sharks FMP, the Board can set possession limits for the harvest of blacknose sharks in state waters. Should the Board choose to complement the federal management measures, action would need to be taken by the Policy Board at this meeting.

As far as justification for moving this final rule forward, is that the commercial retention limit was implemented because the blacknose and small coastal shark quotas are linked. Meaning if one were to exceed 80 percent, then both of the fisheries will close. This happened about five months into the 2016 fishing season.

The blacknose quota was expected to exceed 80 percent, so both the blacknose and the small

coastal shark fisheries closed. This action is expected to increase the utilization of available non-blacknose small coastal shark quota and aid in the rebuilding and end overfishing for Atlantic blacknose sharks. With that I'll take questions.

CHAIRMAN GROUT: Questions for Ashton. Seeing none; is there someone that would like to make a motion here? Michelle.

DR. DUVAL: I might need a little bit of help from staff, in terms of word-smithing the motion; **but I would move that we complement the federal management measures with regard to the blacknose possession limit south of the 34 latitude line.**

CHAIRMAN GROUT: Is there a second? Pat Geer. Robert Boyles, discussion on the motion.

MR. ROBERT BOYLES: Just a question for clarification, maybe to Jim and to Pat. Many of you may know that in South Carolina we automatically track federal regulations for sharks. I note 34° north is roughly Cape Fear, I believe. My question to Pat and to Jim is I'm not quite sure what effect this will have, because I think we're already there; just a question for Jim and Pat how this will effect Florida and Georgia.

MR. JIM ESTES: We really don't have a commercial fishery for sharks in state waters; because we have a possession limit of one.

MR. PAT GEER: The same with us, we don't have a commercial fishery for sharks.

CHAIRMAN GROUT: Further discussion on this motion? Michelle.

DR. DUVAL: I'm going to put on my South Atlantic hat a little bit here. We had had concerned fishermen who were actually fishing in federal waters off of Florida come before the Council and request a little bit of relief. These are folks who, I believe were fishing in the

Spanish mackerel gillnet fishery, but they were also federally permitted shark fishermen.

They were encountering small coastals. However, they had to throw those fish back because of this linked quota that Ashton has mentioned. While there was actually a lot of quota left on the table for small coastal sharks, they were having to discard those fish that they were encountering; incidental to their Spanish mackerel harvesting activities dead.

We brought this before the HMS Advisory Panel and brought it to the HMS Division. This was actually implementing a trip limit on the blacknose was a way to get at that; rather than I think what we talked about was having some incidental catch limit of the small coastals, when there was quota left on the table in these other fisheries.

This was actually the way that HMS suggested solving it. Certainly we supported that and recognized that there is not necessarily state waters fisheries for sharks in South Carolina automatically complements that I think, for consistency with the plan and based on the concerns of fishermen with regard to dead discards. I would recommend supporting this.

CHAIRMAN GROUT: Further discussion on the motion? **This is a final action. I am going to try first to see if there is a consensus here. Is there any objection to this motion; any abstentions? Terry, the state of Maine, excuse me and PRFC, okay it passes by nearly unanimous consent with two abstentions.** Ashton.

NOAA FISHERIES PROPOSAL TO LIST THE OCEANIC WHITETIP SHARK AS THREATENED

MS. HARP: The next item is no immediate action is required. It is more kind of a notice to the Board. The National Marine Fisheries Service released a proposed threatened listing for oceanic whitetip sharks. This was based on the best scientific and commercial information

available. They published a status review report that was released in 2016; after taking into account efforts that were made to protect the species.

The National Marine Fisheries Service has determined that the oceanic whitetip shark warrants listing as a threatened species, and concludes that the shark is likely to become endangered throughout all or a significant portion of its range within the foreseeable future. At this time the National Marine Fisheries Service is requesting public comment.

All comments are to be received by March 29th of 2017. If a state would like a public hearing, they would need to be notified by February 13th of 2017. In regard to the comments, they're looking for some pretty specific things in general. They would like to have comments on new or updated information regarding the range, distribution, abundance, population structure or genetics of oceanic whitetip sharks; as well as their habitat. Any new biological data that would concern any threats to the species, such as post release mortality rates, finning rates and commercial fisheries, et cetera.

They are also interested in current or planned activities within its range and their possible impacts on the species, recent observation or samples of oceanic whitetip sharks, and lastly efforts that are being made to protect oceanic whitetip sharks. Comments can be submitted via mail or electronic submission; and the places to submit the comments are in the proposed rule on the Federal Register. With that I'll take questions.

OTHER BUSINESS

CHAIRMAN GROUT: Any questions for Ashton on this? Seeing none; thank you very much, appreciate it. We're now down to other business.

CHAIRMAN GROUT: The first item of other business I have here is a motion from the Herring Section. Ritchie White.

**MOTION FROM
THE ATLANTIC HERRING SECTION**

MR. WHITE: The Atlantic Herring Section is in the process of an addendum that will put more tools in the toolbox for the Section to be able to slow the harvest down during Trimester 2 in Area 1A; and to do that we need real time harvest data. **On behalf of the Atlantic Herring Section, move that the Commission write a letter to the GARFO office requesting that the states of Maine, New Hampshire, and Massachusetts be granted access to the VMS pre-landing report.**

CHAIRMAN GROUT: It's a motion from the Committee, it doesn't need a second. Is there any discussion on this motion? Seeing none; is there any, yes, Mike.

MR. MIKE RUCCIO: Sorry, I wasn't quick with my hand there. I just wanted to point out for the benefit of the Board that as was discussed in the Herring Section, this letter likely will end up with our Office of Law Enforcement; as they're the group that actually controls access to VMS landing. Regardless of who you send it to, we'll make sure it gets to them, but there is an extensive process to get vetted for VMS data.

CHAIRMAN GROUT: Okay given that – Eric

MR. ERIC REID: I would like that the motion be refined to reflect the area fished, which we're talking about 1A; I believe.

CHAIRMAN GROUT: That these three states would only have access to herring pre-trip notification VMS data for herring, 1A, are you making a motion?

MR. REID: I suppose it's a motion to amend, but I would rather have it as a friendly effort. I just don't think they need access to Area 2.

CHAIRMAN GROUT; Okay, the difficult part that I see with a friendly, is this is a motion from the Committee; so it's not like you're asking the maker and seconder to do this. Ritchie, would you like to speak to it?

MR. WHITE: Yes, I would agree that the Section voted this motion in, so I don't think I have the ability to change that. I guess I don't understand the problems with those states seeing that information during that time period; because it's the summer, and I don't know that there is a lot of harvest going on in Area 2 during the summer. I guess you would have to make the motion to amend if you're concerned about it. But I guess I don't understand the concern.

MR. REID: Okay, I understand the intent of the motion. You could get inundated with landings reports. I'm assuming that you would request specific landing reports from specific vessels or specific areas; and that will be okay with me. There is no reason you have access to all of them, and I should have made the comment at the Herring Board, but I did not, so it's my bad and forget it.

MR. WHITE: Well, the intent of the motion is to get data and use data for harvesting in Area 1A during the second trimester. I don't know if that helps you or not; but that was the reasoning behind the motion.

MR. TERRY STOCKWELL: Due to the marvels of technology I've been corresponding with staff during this conversation. They very specifically request this data. They want to know who is fishing where right now. We have all the areas, but now as a state. Our Technical Staff believes they'll be able to provide us better information if they have broader access to the data.

MR. RUCCIO: Just to Eric's concerns about being inundated. I believe once access is granted, it is typically the entire VMS suite for the northeast. However, you can create custom reports that would allow you to select, I am sure Area 1A is one that is selectable; specific vessels by registration. There are ways to cull the data down so that you don't have to look at all the tracks that are out there for everything along the Atlantic seaboard.

CHAIRMAN GROUT: Just so we're clear, we're not going to be even requesting the tracks. We're asking for the pre-trip notification data specifically.

MR. RUCCIO: Correct, but I think the process of getting access may involve getting clearance to be able to see it all. What you want out of it you can choose, but I think that's why it said it's best to go through OLE; because they will have to vet through some process who gets the data and who will have control of it.

CHAIRMAN GROUT: **Okay further discussion on this motion; is there any objection to the motion? Seeing none; the motion passes by unanimous consent.**

RISK AND UNCERTAINTY WORKSHOP

CHAIRMAN GROUT: Next other business I have is Shanna, who is going to give us an update on the Risk and Uncertainty Workshop.

MS. SHANNA L. MADSEN: If the Policy Board will remember, back at Annual Meeting last year Jason reported out to the group a quick example of what our Risk and Uncertainty policy might look like; and we suggested to the Board that we move ahead with developing a more solid example. The Board recommended that we do striped bass.

The workshop would sort of focus on moving striped bass through this test risk and uncertainty policy. We had discussed holding this workshop in May. We would like to request

from the Board that we move the workshop back to either August or this Annual Meeting week, simply because we have a lot of overlap amongst a lot of our Committee members. There are a lot of meetings going on earlier this year, and the group would like to have the chance to take the workgroup's report to the Assessment Science and Management Science Committee, and fully vet it through those two groups before bringing it to the Policy Board; to make sure that we have a more solid example to bring to the group. Essentially we just would like to know if it's okay if we kind of bump that workshop back from May meeting week to later on this year, depending on what space is available for us.

CHAIRMAN GROUT: Any questions? Is there any objection to this request? I think we're okay with it.

SUMMER FLOUNDER STOCK ASSESSMENT

CHAIRMAN GROUT: Final other business item, Adam. You wanted to bring an issue of a discussion about the summer flounder assessment.

MR. NOWALSKY: Great thank you, I'll try to do this with as little feedback as possible; although we seem to be all fighting the common enemy at this point. This is a motion that came from the Summer Flounder, Black Sea Bass and Scup Board at the December joint meeting with the Mid-Atlantic Council.

The motion at that time was to have the Policy Board request that the NRCC get a summer flounder assessment on the schedule as soon as possible. Dr. Pat Sullivan from Cornell has been doing work, working with the Science Center and a number of other groups on developing a sex-based model. He has now presented twice to the Mid-Atlantic Council.

Most recently at the joint meeting in December, so those members of the Board that were there at the time got to see that presentation. This is

the recommendation from the last stock assessment peer review that that species, summer flounder, move towards a sex-based model; and Dr. Sullivan's work has now brought us to that point. He is ready to go with it.

The issue has become one of timing, specifically with the recreational re-estimations that are taking place in trying not to duplicate the stock assessment process; but at the same time not wanting to delay the use of what would be the best available science for summer flounder, any longer than absolutely necessary.

There have been concerns about trying to get it on the schedule. I would ask, at this point we've had some conversations with staff. They have discussed the need to go through the Assessment Science Committee before asking specifically the NRCC to put this on the schedule ASAP. The first available timeframe that we've been told to go through the Science Center would be the second half of 2018 would be the first available timeframe.

Discussions tomorrow we're going to certainly let us know that that may be too little too late for a lot of people involved. I would first ask one, to get some feedback from staff regarding that process of getting that request through the NRCC. Then two, I would like to turn to Russ, who has got some information about New Jersey's willingness to look at funding this assessment, potentially outside of the typical SAW/SARC process.

CHAIRMAN GROUT: I'll go to Toni first and then to Russ or staff. Bob. (ding)

EXECUTIVE ROBERT E. BEAL: I'm awake now, Doug. Just a quick comment on the NRCC, Northeast Region Coordinating Council, it is a group made up of the Commission, Mid-Atlantic, New England Councils, the Regional Office, GARFO and the Science Center. The five bodies get together and try to figure out how to populate the SAW/SARC schedule, given everyone's competing demands for assessment

time and the limited resources that Woods Hole has. We can bring that forward. It is a high priority. I attend all those meetings and we kind of do a lot of horse trading; and try to make the case for what species are the highest priority and should be put on the SAW/SARC schedule.

Bringing that forward is easy and we can do that. That doesn't guarantee results. I've been trying to get striped bass on that schedule for quite a while, and I haven't been successful; so we have to do that solely through the Commission process. For species like summer flounder, scup, black sea bass, bluefish the jointly managed species, we can work with the Mid-Atlantic Council.

If they see it as a priority as well at least you've got two groups pulling in the same direction. We can bring that forward. It doesn't guarantee results. The SAW/SARC schedule is pretty full with a number of groundfish species that the New England Council needs additional assessments on so they can move forward with their management.

There is a big chunk of time set aside to deal with the recreational data that is coming online to transition from the phone survey to the mail survey; which has a potential to significantly impact the number of assessments. The 2017/2018 schedule is pretty full, but we can bring summer flounder forward and see what we can do.

MR. RUSS ALLEN: As Adam said this is something that we think, and I'm sure many other states think is the priority to get an assessment done. We know there is better data out there. We need to move forward. We're kind of looking at it as a process that maybe we're not going through SAW/SARC. I don't know how that process goes.

I know it's been done before with other species where it has been independently funded to do that. As of now, we've already found a

\$40,000.00 to start this process. We're looking for additional funding. We're talking to our recreational community, trying to get some additional money there. I think we'll be talking to other states to put some other money together; in order to go outside of that SAW/SARC process and get this stock assessment done.

But I can guarantee that that money is only available for 2017, it won't be available down the road. We're looking forward to other states jumping onboard and trying to get this done. Mid-Atlantic Council meets in a couple weeks. I think if this Commission can say this is the way we want to go, I think we can bring that back up to Mid-Atlantic Council; maybe get everybody on board and find a way to get that assessment done, because I think it's critical, especially for New Jersey. But also for New York and all the other states that are involved here.

MR. STOCKWELL: As a follow up to Bob, and as someone who has been to a number of NRCC meetings. I do want to advise the Board here of a really overfilled stock assessment schedule for the next two years. It is committed this year for 2017, 2018 at this point the SAW/SARCs are committed to scallops, herring, shad and the second half of the year is fully dedicated to MRIP.

One thing the New England Council did to address an issue with Atlantic halibut was to seek an outside source, and the New England Council has funded an alternative assessment; and I would be happy to talk to you about that offline.

CHAIRMAN GROUT: Is there further discussion on this? Mike.

MR. RUCCIO: We did get a little bit of a heads up that this might come up today. You know the issue of trying to advance the schedule for summer flounder has been broadly discussed. I understand and appreciate the desire to have that advanced on the schedule, and I won't

repeat all the comments that have already been made about what is already prescribed; the NRCC process the other discussion that's come up about MRIP transition.

I think those are all valid points, but at the same time that is not wholly satisfactory to people, and I get that. There is a challenge for us I think, in the potential for competing science. We are very aware of Dr. Sullivan's work. We have collaborated with him; we've been encouraging his work on the sex-based model.

We do think and hope that it holds promise for incorporation into a full assessment. One of the things that might be worth consideration is to try to have that work independently evaluated and reviewed, if there are funds that are available to do that. But the issue then becomes the agency is for better or for worse the arbiter of what constitutes best available science when it's applied.

We would need to be able to vet that information. Going through a formal process with that assessment type and having it externally peer reviewed, might give us the opportunity to do that. Of course it all remains to be seen. Peer reviews are not a foregone conclusion that models are upheld, or the suggestions or outputs that are derived from them are always recommended for management use.

But that might help accelerate the schedule for a time when it could be incorporated into the SAW/SARC schedule, if it's already kind of gone through and been vetted through a peer review. Obviously if the methods in the model diverge significantly from the advice that is already coming out of the peer reviewed model at SAW/SARC, we would have some questions that we would need to talk about then; and try to figure out how to move forward.

I think we can be supportive in the ways that we have been, as I mentioned we have been trying to work with Dr. Sullivan, he has been

very collaborative with us. It is not a completely independent evaluation being conducted outside the purview in total of the agency. But as far as scheduling it through our existing SAW/SARC process, and then having the Center of Independent Experts as has been mentioned the schedule is full.

There is another planned update for summer flounder this summer, which will update the independent and fishery dependent data sources; but that is as people will rightly point out, simply an update to the existing methods and model. There might be ways to work with this, and if it's something that people are trying to put together, I would encourage them to reach out to Jon Hare and the staff at the Center.

Try to find ways for collaboration; and to make sure that whatever happens ends up to be well suited for either consideration moving forward into a larger assessment process, or to help inform management advice. The one thing and I don't think this is what people suggest, is we don't want rogue science popping up everywhere. I don't think that at all was suggested, but that is something that we have to think about, in terms of when management recommendations come to us, we have to vet what scientific basis they're founded on as part of National Standard 2. We have to be able to verify the information there. Dr. Sullivan has been very forthright and shared his results with us to date, but peer review would be an important part of that as well.

CHAIRMAN GROUT: Michelle and then Rob.

DR. DUVAL: Just to speak briefly on what Mike offered in terms of a different peer review process or an external peer review process. We've experienced similar difficulties I think in the South Atlantic with the resources available for stock assessments and updates. Particularly if something urgent comes forward, and I'll note that our SSC for the South Atlantic Council actually developed a procedure for what we call

third party assessments. Developed a very prescribed process, whereby the SSC has review over a third-party assessment from the beginning.

Now this has only been applied once to a wreckfish assessment that I believe was conducted by Dr. Butterworth a couple of years ago. I know John Carmichael, who is the SEDAR program manager is going to be here; I believe probably later on today, and certainly tomorrow for the South Atlantic Board. I would encourage folks who are interested in something like that to reach out to John. He can give you a little bit more of the specifics, and provide the documentation that the South Atlantic Council SSC put together to try to address these things.

MR. O'REILLY: I was just going to say that with joint management it sort of makes it difficult to hear Russ. I count that as enthusiasm on the part of New Jersey to take a step forward as quickly as possible. But I am certainly well aware that in joint management the partners all have to be sort of holding hands.

I guess at the next Council meeting there needs to be something said about what was done here today. I know at the last Council meeting there was pretty definite ideas that the assessment had to wait, at least until after the MRIP situation was settled; and that did not sit well with some of the Board members in that joint meeting.

You're seeing a little overflow of that today. I think the conversations still have to happen between the ASMFC and the Mid-Atlantic Council. But certainly there probably are reasons why New Jersey needs to know what it's going to do next; as far as making that kind of investment over the course of doing stock assessments.

You know the first stock assessment I remember was Gary Shepherd with striped bass in 1996; that was VPA. After that the state

personnel were doing the stock assessments. I always thought really ASMFC needs to do those assessments, and that's what's happened. We've modernized; ASMFC has staff that does the assessments. But we're in a joint situation and there are differences, so let's go forward back to the Council and see what the thought pattern is there. I certainly appreciate the comments from New Jersey.

MR. NOWALSKY: I think at a bare minimum today, Mr. Chairman, I would like to know if this Policy Board does need to act on that motion that came out of the Summer Flounder, Black Sea Bass and Scup Board at the joint meeting, and if so it would be appropriate to take action on that. At a bare minimum, certainly have other states begin consulting with New Jersey about the possibility of finding a way, working with the Service as Mike said. Dr. Hare has been an integral part of the conversation in recent months as well; about trying to find a way to get this done for potential management use in 2018. I think that behooves everyone around the table, certainly the Board members, this Commission as a whole, the Council, the Service, the fishermen and probably most importantly the resource that we are here to represent.

CHAIRMAN GROUT: Further discussion? We have a question. Is there anything this Policy Board needs to do to move the motion that was at the Fluke, Black Sea Bass and Scup Board in December forward for action here?

MS. KERNS: In particulars to the motion itself of taking it to the NRCC. Bob indicated that he can do that at the spring meeting, which I believe is in June this year. Whether or not that gets on the NRCC in 2017, as Terry indicated the schedule is already full so that would be, I think highly unlikely. But again I can't predict what would happen there.

It is not on the SARC schedule until 2019 right now. You've indicated that you've gotten some information that it might be able to fit into the

fall of 2018, so that is information that I didn't have prior to. Beyond taking it to the NRCC, we can definitely do that.

MR. EMERSON C. HASBROUCK: It seems that we're not going to need a motion then, first to have Bob bring it to the interested states. I suggest that we move forward with that. I think it's important that we have a benchmark assessment for summer flounder occur as soon as possible. We've been managing this resource for what, 20 or 25 years.

We're going to have quite a discussion tomorrow morning relative to where we are and where we need to go, and what our regulations should be for summer flounder. Here we are 20 years later and we're not better off than we were when we started it. In fact some may think that we're in worse shape than when we started this. Our last assessment update said that we've been overfishing since 1980.

We need to do something different here for summer flounder. I think a sex-based benchmark assessment is the start of doing something different; because what we've been doing all along here doesn't seem to be working. I think we need to move this process forward. If the NRCC is going to meet in June, I think was mentioned, then we'll have an answer then.

In the meantime, perhaps we can work with New Jersey about raising some additional funds to pay for an assessment outside the SAW/SARC process, and start to have some conversations with people about how that needs to go forward. One question that I have relative to that is; if it does go forward outside the SAW/SARC process, can the results of an outside conducted assessment be brought into the SARC component for final peer review? That may be a way to incorporate this as well, to get a peer review that NMFS is comfortable with.

CHAIRMAN GROUT: Does the Service feel comfortable in answering that question at this point?

MR. RUCCIO: Well actually no I'm not comfortable answering that; because I don't know what the answer to that would be. But I would think that that should be included within the conversation with both the Northeast Science Center and then potentially the NRCC. I think those are the best avenues to get a definitive answer on something like that.

MR. NOWALSKY: I'll just add I've had conversations building on Terry's comments, with the New England Council about that Atlantic halibut work, and that road that Emerson just suggested is my understanding of exactly what the intention is. Have Dr. Rago do the modeling, everything that would go through up to that point. Then have it go through the SARC process for peer review. That is my understanding of what the intent is with the halibut work.

MR. WHITE: Thankfully New Hampshire does not have summer flounder. But I just have a question on process. Wouldn't the process be that the Summer Flounder Board makes a motion and passes it, and then it's on the agenda here with the Chair of the Board? I guess I do not quite understand why it's not going that route.

CHAIRMAN GROUT: Are you talking about the process of potentially funding another assessment, having the state of New Jersey and potential other states providing funds for a peer reviewed, not only the development of the stock assessment, but also the external peer review would be paid for by that group.

I would assume, and I could be wrong that the best mechanism to do that would be to funnel the funds through ASMFC, and let them develop the peer review process; get the Peer Review Panel together, and actually try and in addition to trying, to move forward an expedited stock

assessment using the new model by Dr. Sullivan.

EXECUTIVE DIRECTOR BEAL: To the point of having an external party doing the assessment work, and then turning it over to SARC. We've raised that for species like northern shrimp and striped bass in the past. We still run into the same scheduling bottlenecks with the SAW/SARC process. I'm not sure that one necessarily gets us out of the woods. But what you suggested, Doug, of ASMFC pulling together a number of external peer reviewers, we can do that.

We've done that for a number of species. We do that two, three, four times a year. If there are funds available, we can work to find independent external reviewers that can review assessment work; either done by ASMFC groups or external groups, if that's the will of the Board. I think the SAW/SARC schedule is full. I would be surprised if we can get our foot in the door to get much on that schedule through the end of 2018.

MR. NOWALSKY: I like what that recent conversation was going. I'm not sure if that answered Ritchie's question, because I'm not sure if he was referring to the motion that came out of the Summer Flounder Board and why that wasn't presented by the Chair here. I would have to leave that to staff to say why that wasn't included as an option originally as part of the Policy Board. But I'll build on that and with Bob's comments, so would this be recommended?

I mean I know we're already going to be crushed for time tomorrow morning; but is this what would be recommended as a discussion that needs to come out of that Board tomorrow? Potentially looking to find funds for external review through ASMFC to get this done sooner, or have we kind of short circuited that; saying that that was initiated by that Board by requesting the stock assessment? How would

we move forward with what Bob just described in as expeditious timeframe as possible?

EXECUTIVE DIRECTOR BEAL: It is really the comfort level of this Board. All the summer flounder folks who are around the table right now, tomorrow morning we're going to be, as you said crushed if not worse for time. If folks around the table here are comfortable proposing that we move forward with an external peer review through the ASMFC process of some sort, I think that needs to be coordinated with the Mid-Atlantic Council in two weeks when we're down in Kitty Hawk at the joint meeting; to make sure that they're comfortable with that as well.

I think if we end up with a situation where ASMFC does an assessment or the states through ASMFC do an assessment, and then the Mid-Atlantic is not comfortable with that course or doesn't give an indication they're going to buy into the results of that process. We're going to end up in an awkward spot. If the Policy Board express their comfort with moving down that road and then we talk with the Council about it in two weeks. I think that's probably the next two steps, in my mind anyway.

CHAIRMAN GROUT: As I understand it that would take a motion by this Board to move down that and also by doing that it would provide other states the opportunity to weigh in, to see if they can provide additional funds to help support this; because as I understand this may cost more than the very generous amount that the state of New Jersey is willing to put forward. I will give John first crack at this, because he hadn't spoken first. But then Adam, I'll take you afterwards. John.

MR. JOHN McMURRAY: I'm all for prioritizing a benchmark or even an external peer review, and Emerson's comments are well taken. But what I'm not entirely clear on are what are the expectations for this sex-based model? The surveys are the surveys. We're still going to

have poor recruitment and we're still going to have MRIP problems. Is it worth it, and is it worth having the state of New Jersey dump this money in when I'm not clear on what the expectations are.

CHAIRMAN GROUT: Emerson, or do you want to address that first, Adam or do you want me to go to Emerson?

MR. NOWALSKY: I'll let Emerson go first.

MR. HASBROUCK: I can't speak as to what everybody's expectations might be. But my expectation would be an assessment that reflects the biology of the resource better than the current assessment. Summer flounder males and females grow at significantly different rates, and they have significantly different natural mortality rates. That's not taken into account in the current assessment. It is a blended natural mortality rate, if you will.

I would expect that a sex-based assessment will be more reflective of the biology of the resource. I don't have expectations in terms of what the output is going to be. The results of that assessment are going to be what they are. They may reaffirm where we are, they may come up with something different. They may provide less uncertainty in the output of the assessment. Those are my thoughts on it, I don't know if anybody else has additional thoughts.

MR. NOWALSKY: I'm glad I let Emerson go first, because he clearly exemplified his better knowledge of that than I have. I too can offer however that I don't have any insight as to what the model will output. However, my expectation is that it will fulfill the recommendation from the last stock assessment for better science, to move towards a model that is sex-based. If that is what we take as best available science, and we strive to meet those recommendations that come out of our peer reviewed stock assessments, and here

it is. Somebody is holding it out there right in front of us.

The apple is dangling; all we have to do is pull it down from the tree. It is there. We would be remiss to not take advantage of that opportunity. To build on that I would go ahead and make that motion, I'll probably need some help from staff here. **But I would move that the ASMFC look at an external assessment for summer flounder for 2018 management use.** I'll start there, look for a second and take whatever help staff can give us.

CHAIRMAN GROUT: Given the discussion, would it be appropriate to say Toni, external peer reviewed assessment?

MS. KERNS: That's a question to Adam. Are you looking for the Commission to conduct that external assessment as well as the external peer review, or is New Jersey or somebody else going to coordinate the actual assessment itself; and just bring us the peer review to do?

MR. NOWALSKY: I think we're looking for a collaborative effort. I don't have the answer, but the two biggest challenges in one of these areas are one, having the science, and two, having the money. We have the science, it is there. It is ready to go. We have a significant portion of money ready to go to start that process.

Hopefully we can get some other people on board, other states on board with seeing that through. Those are typically the two greatest challenges, doing the science, having the money. We've got those items started. I would look for, again I would have to look for some help here in what the best way forward is as a partnership in getting this done. I appreciate any guidance you can provide.

MS. KERNS: Just one more question for clarification. When you say you have the science, does that mean the assessment is ready to go for peer review now; or do we need

to involve the states and our federal partners and our Mid-Atlantic partners in order to actually run the numbers, get the numbers, and all of that?

I only ask that because we need to make sure that we coordinate with all the other assessments that are ongoing. I would think that the states would make it a priority, but we also have to balance the other assessments that are currently ongoing for this year. I will stop there.

MR. NOWALSKY: We would need the help of the states to get all of the typical data inputs that would be at the beginning of the stock assessment workshop process.

CHAIRMAN GROUT: This again is requesting the conductance of a stock assessment with all the partners that are involved, and a peer review process of it. We need to include peer review in that motion. Okay now we need a second. Emerson, okay. We've got a second, discussion. I'm going to go to Bob and then Ritchie, and we'll start moving around.

EXECUTIVE DIRECTOR BEAL: I'm just trying to make sure what this looks like in my mind is what this may look like in reality. The Step 1, as Adam mentioned, the states and partners would compile the data. Step 2 is a group of external scientists would be contracted to crunch the numbers. Then Step 3 would be ASMFC would find external peer reviewers and Step 4 is the external peer review happens. The ASMFC resource commitment is staff time to help coordinate data compilation, and staff time to find the peer reviewers and set up and run the peer review essentially.

The Commission wouldn't be directly putting in staff scientist's time or financial resources of the Commission. Is that what we envision? Because I think if that's not the sort of four steps that everyone has in mind, we may need to reprioritize some of the Commission resources. We don't have money in the budget

for this, this year, and we didn't set aside staff time to work on this yet. They're kind of flat out with other assessments. That is why I'm asking; just trying to make sure we're all on the same page.

CHAIRMAN GROUT: Given that question I'll go to Russell before I go to the other hands.

MR. ALLEN: Yes, I think you hit it right on the head, Bob. The only thing else I would add in there is if ASMFC wanted to put more time into it and add their scientific knowledge into that assessment process. I think we're willing to get our scientists to work on this also, and help coordinate with ASMFC to the best of our ability.

This is our priority right now, so I think that's where we would head and make sure that we supply whatever you need. As I said, we're going to continue to look for funding and hope other states can join in; so you don't have to use as much staff time and things of that nature.

CHAIRMAN GROUT: Okay I have Ritchie White, Robert Boyles, Michelle Duval and Rob O'Reilly.

MR. WHITE: I think Bob answered my question. I mean it seems like the Commission is moving forward with an external stock assessment and peer review. As long as Bob's clarification is that it is not Commission money that is going to fund it, I'm okay with that. I guess the second piece would be is there a timeline by which the Commission will come back with an answer of when are we going forward with this? I don't know if you want that part of it or not as to what's the timeline.

CHAIRMAN GROUT: Does anybody want to answer timeline? Adam.

MR. NOWALSKY: Well, again the hope would be the timeline would be for 2018 management use. Now, what would that look like? A best case scenario would be having the outputs of

that work peer reviewed and then have the Mid-Atlantic SSC look at that as part of their June/July meeting, which is typically when they look at making quota recommendations that the Summer Flounder Board then looks at, at the joint August meeting.

That would be an absolute best case scenario, probably unlikely. That being said, the Black Sea Bass and Summer Flounder and Scup Management Board in two weeks is going to meet jointly, and look at redoing the black sea bass quota for 2017 after the SSC looked at it. For 2018 management use, I think having the timeline we would need to have that would be by the end of the year; at which point the Mid-Atlantic SSC could then look at that, revise a recommendation that might have been made earlier in the year, and would meet that 2018 management use timeline. I hope that helps to some degree.

MR. ROBERT BOYLES: I think I understand the frustration and the need to do this. I'm trying to get my hands around what this means for us, and I would like to remind the Policy Board that we've spent a lot of time developing the 2017 action plan, laying out priorities for the Commission; what needs to be done.

There are things that need to be done that we collectively agreed we could not do, by virtue of constraints on time and money. I'm not clear. I don't know that I can support the motion, given the fact that we've been very deliberate about going through and planning out our work plan for the year.

DR. DUVAL: At the risk of stepping into a quagmire that I generally try to stay out of. But it seems like just given some of the concerns raised about coordination with the Mid-Atlantic Council. Again, naïve about this, but it seems like it might be a conversation to have during that joint meeting that's coming up in a couple weeks; just to make sure that everybody is on the same page, in terms of taking an alternative

approach. I'm not sure that I'm going to be able to support this motion at this time.

MR. O'REILLY: I appreciate what Adam and Russ are indicating here. At the same time, the Kitty Hawk meeting is coming up. I think this has been advancement since the December joint meeting, and it did feel as if the information was squeezed into a pretty narrow scope of thinking. The Council certainly is on record saying they're going to wait until after the MRIP data.

There was a little back and forth. Adam wanted to make that motion anyway, he did and that's fine. But I think now what's needed is with this new information, because there is some new information now and some new direction that wasn't available in December to either ask Bob, or perhaps Doug. I'm not sure who does this, just to get a little window of time that this will be discussed in Kitty Hawk.

There are some real hurdles to overcome here, one is time. Would there be a SEDAR approach with three different meetings required? Gathering the data is difficult. The Council already does that on a routine basis. Dr. Terceiro has been doing this assessment for 20 some years probably. I mean I'm trying to think of how long, but a long time.

There are nuances with the assessment. It just seems that if we don't have everyone's expertise pulled together, because it's a joint plan. We're liable to make missteps that we wish we hadn't made. I don't doubt the sincerity and the need. I think Emerson has categorized the way I feel, which is we are looking for corroboration.

When you have a model and it's telling you that year after year there is retrospective pattern, and also indicating that what you thought was a great recruit class of 2009 is now, it's above average still, you know it's above 42 million; or whatever the average is. But the recruitment

situation, as John McMurray said, would have to be dealt with.

There is natural mortality that has to be dealt with. The sort of melding of the male and female different natural mortality rates that occurred, maybe eight years ago, time is hard to pinpoint sometimes. There are a lot of things that have to be pulled together, beyond just wanting to get a product; and I don't mean that in a bad way. Fundamentally I think this is good information, but I want to make sure everyone who is involved, the Council because of the federal waters connotation, and the ASMFC because of the state waters; that everyone is onboard.

There might be something to gain at this joint meeting, in terms of some direction that hasn't been thought of since December. With that I would be in a tough place to say that I can support this at this point. I think we can do this through negotiation with the Council. I think we ought to do that first.

CHAIRMAN GROUT: Okay I have Jay and I have a whole bunch of hands. But I want to make clear here we're running about a half an hour over. I'm going to ask that everybody be succinct in their points, and then we'll take a vote on this. I'm going to go to Jay and then I'm going to go to Terry; because he hasn't spoken. Then I'll come back around to that side, and Eric, who hasn't spoken. Okay so again, succinct.

MR. McNAMEE: I'll try to be real quick. I have two concerns. I'm struggling over here, because I like all of the things that are being discussed. I like this idea, unique ways of trying to take some of the pressure off a really packed assessment schedule. I think this is all positive. Two concerns, the first is what assurances do we have that we do all of this work and that the federal government, who we jointly manage this species with, would actually use the information?

I think that leads to having to wait and hash through this with the Council. The second is a concern about science is a process; it evolves through time and to not have Mark Terceiro as Rob O'Reilly mentioned, who has been doing this assessment for decades, knows summer flounder and the data in the assessment better than anyone. To not have him involved would be problematic in my view.

Some sense of whether Mark would be able to be a part of this, I think it would be really difficult for an uninitiated group to come in with this species, and produce a product that is ready to go right from the get go. There needs to be some continuity with the work that's been going on for the past couple of decades as well.

MR. STOCKWELL: I am in support of the concept, but I'm concerned about the motion, and Jay touched upon it. What's been missing in this conversation has been outright collaboration with the Science Center. Without the Science Center's support, both for the assessment and for the peer review, it's probably going to go nowhere. I would urge those who support this alternative external stock assessment to consider that.

MR. REID: I can't add to any of the comments that have been made, except for the fact that this is a unique situation, where it is actually going to be funded externally from the ASMFC or any other organization and any other council. To be offered that opportunity is something I really think we need to look at; but there are so many hurdles to overcome. If one of them is not money, I think we should at least look at it.

CHAIRMAN GROUT: There was a point made about the Science Center collaborations, and in the back of the room is Jon Hare. He might be able to provide some input to that particular question.

DR. JON HARE: Obviously the Science Center is interested in developing the best science possible, and there is a lot of promise to Dr.

Sullivan's model; and we've been working closely with him in the development of it. I think this issue illustrates some of the questions that we have with the assessment process generally. I think that those issues need to be dealt with at the NRCC. As Science Center Director, I am neutral on this.

I think it's good to have the debate and get the issues on the table. Then we will do the best we can to support ASMFC, no matter how this comes down. But we also need to have the conversation at the NRCC about the assessment process in general; and many of those issues are being brought up here. My position is neutral. We will support what decision is made. I will add two other points. The question came up about assembling the data.

Mark Terceiro is assembling the data already as part of a model data update. That could be leveraged off. Then the other issue which comes into sort of the peer reviewed piece of this is Dr. Sullivan's model is a sex-based model; and how sexes are assigned to time periods when there is no sex data available, is something which needs to be worked out in the scientific review, peer review process and that hasn't been discussed here yet. We will do our best to support the ASMFC and the MAFMFC and the NEFMC and GARFO to the best of our ability. Thank you.

CHAIRMAN GROUT: Thank you, Jon, all right Adam and then Mike you'll have the last bite and then we'll move this question.

MR. NOWALSKY: First, let me thank everyone for this discussion. I know it has probably been a larger chunk of time. I won't extend that. I'll just build on thank you, Dr. Hare for your comments. Really Dr. Hare and the Science Center have been very involved with Dr. Sullivan. Jay touched on having Mark involved.

Mark Terceiro has been involved with Dr. Sullivan from very early on, helping get the data et cetera. He's seen what's going on. We

would certainly hope he could be involved in the process. To Robert's comment about his level of questioning about the action plan, lucky for us it already is. Ask 1.1.85; support the development of a sex-specific stock assessment modeling approach for summer flounder.

It is there already if that makes you more comfortable. Finally, I'll add that what this motion says is explore moving forward. As I said, we've got the heavy pieces there, the beginnings. We need the help with the coordination. That is what I see this motion as; that staff could look at how do we put all these pieces together now?

How do we make it happen? Come back, give us some guidance, and give the NRCC perhaps some more information. But it helps us formulate the picture of how it happens. We're not saying do it, we're saying help us paint the full picture so we can all decide how to get this done; and I appreciate your support.

MR. RUCCIO: Finding money would seem to be the easy part of this conversation, but nothing else to add. Call the question.

CHAIRMAN GROUT: Okay I'm calling the question. I'm going **to give you 30 seconds to caucus. Okay I'm going to call the question. Is everybody ready? All those in favor of the motion, raise your hand, all those opposed, abstentions, and null votes; the motion carries 13 to 2 to 3 to 0.** Are there any other items to come before the Policy Board? Seeing none I'm going to, Kathy sorry, I went right by you.

MS. KATHY KNOWLTON: I will be very brief, thank you, Mr. Chair. I just want to go back to the point that was made a long time ago about consternation that is brewing, and rightfully so about the change in the MRIP estimates; given the various calibrations that have been started, and the significant one that will be coming down the road for the changeover from the Coastal Household Telephone Survey to the FES,

the Fishing Effort Survey; to add to the acronym soup that was already listed.

One of the things that I encourage you all to do is when you have access to, at your state offices, members that are on the MRIP Transition Team, myself, Toni, probably some other people in this room who I should be remembering but I'm not; are on that team. We attend conference calls discussing how the calibration, particularly taking in to account the change in the methodology that started in 2013 and the one that is going to impact, have major impacts particularly for stock assessments and the new ACLs coming out of them.

We are setting up the parameters for a peer review, and it's going to be based off of independent experts from the CIE. But there is also the opportunity to put more people on that group. The comments originally started with, as you would suspect, things like statistical members from the various councils and other state people that have expertise in that.

But Toni and I want to thank her for this, made the very, very excellent point that one of those positions needs to be the Commission. I think relative to the proportion of catch and harvest and effort that the species that is managed through the Commission takes that it would be fantastic if you all could be in contact with your Transition Team members, and when that comes up for discussion again to encourage it. I absolutely agree the Commission should be one of those positions.

ADJOURNMENT

CHAIRMAN GROUT: Okay, thank you Kathy for that. Any other items; okay I move that this meeting is adjourned.

(Whereupon the meeting was adjourned at 2:39 o'clock p.m. on February 1, 2017.)

March 24, 2017

Mr. Douglas E. Grout, Chair
Atlantic States Marine Fisheries Commission
1050 N. Highland Street, Suite 200 A-N
Arlington, Virginia 22201

Dear Mr. Grout:

The New Jersey Commissioners of the Atlantic States Marine Fisheries Commission (ASMFC) hereby formally appeal the February 2, 2017 approval by the Summer Flounder, Scup and Black Sea Bass Management Board (Board) of Addendum XXVIII (Addendum) to the Summer Flounder, Scup and Black Sea Bass Fishery Management Plan (FMP). More specifically, New Jersey is appealing the Board's approval of Option 5 under regional management in the Addendum and the specific management measures set forth under Option 5. This decision mandates a one-inch size increase to New Jersey's current recreational summer flounder minimum size limit and decreases the possession limit from five fish to three fish. New Jersey brings this appeal pursuant to the Appeals Process approved by the Interstate Fisheries Management Program (ISFMP) Policy Board (Appeals Process).

New Jersey has previously and repeatedly expressed concerns regarding the Addendum and exhausted all options to gain relief at the Board level. During the drafting of the Addendum and prior to the ASMFC meeting of February 2, 2017, New Jersey's ASMFC Commissioners contacted Commissioners from other member states to discuss our concerns with the options set forth in the Addendum. The Commissioner of New Jersey's Department of Environmental Protection testified before the Board at the ASMFC meeting of February 2, 2017 to express New Jersey's apprehension about the science and the impact these decisions would have on the economic health of the recreational fishing industry in New Jersey and on the health of the summer flounder fishery. At that same meeting, New Jersey voted against Option 5 of the Addendum and unsuccessfully moved to postpone the Addendum.

Since the ASMFC approved Option 5 from the Addendum, and with New Jersey's administrative options exhausted, New Jersey now files this appeal based on the criteria in the Appeals Process

and the ISFMP Charter. First, this appeal demonstrates that the Board’s current decision, as well as previous quota limits to the commercial sector, will result in specific adverse impacts to New Jersey’s recreational summer flounder industry and the overall summer flounder fishery industry that ASMFC is charged with protecting. Second, this appeal shows that the Board did not properly apply technical information in using Marine Recreational Statistical Program (MRIP) harvest estimates and failed to consider the biological impact of increased size limits on the fishery. Finally, this appeal outlines how the Board failed to follow proper process in reaching its decision on the Addendum.

Specifically, this appeal addresses the following criteria:

- Criteria 5: Management actions resulting in unforeseen circumstances/impacts
 - Increase in Fishery Resource Waste
 - Disproportionate Removal of Larger Breeding Females
 - Unfairness & Inequity Among Member States
 - Failure to Consider Economic and Social Impacts
 - Compliance and Data Collection Issues
- Criteria 3: Insufficient/inaccurate/incorrect application of technical information
 - Variability and Untimeliness of MRIP Data Not Appropriate for Yearly Management Approach
- Criteria 2: “Failure to follow process”
 - Inaccuracies in Draft Addendum XXVIII Subject to Public Comment
 - Failure to Include Enhanced Opportunity Shore Fishing Program in Draft Addendum XXVIII
 - Failure to Properly Consider Public Comments\

Criteria 5: Management actions resulting in unforeseen circumstances/impacts

The Board’s recent management actions will likely cause a number of unforeseen adverse impacts to the State of New Jersey. The most critical is the increase in discard mortality, which when coupled with the decrease in harvest, will result in more dead discards than actual harvest. Moreover, the increased minimum size limit has the effect of targeting larger female breeding

stock, which may have a negative impact on the flounder fishery recruitment. The Addendum's minimum size requirements also unfairly affect New Jersey compared to other states because the summer flounder in New Jersey waters are smaller than that of our northern counterparts. Thus, the management measures selected in the Addendum will have more damaging economic and social impacts upon New Jersey's coastal communities. Finally, the Addendum will create additional compliance and enforcement difficulties and data collection problems by continuing to erode anglers' trust in regulatory entities.

Increase in Fishery Resource Waste

Section 6(a)(4) of the ISFMP Charter states that "management measures shall be designed to minimize waste of fishery resources." The Charter's requirement is consistent with National Standard 9 of the Magnuson-Stevens Act (Act), which requires that "[c]onservation and management measures shall, (a) to the extent practicable, minimize bycatch and (b) to the extent bycatch cannot be avoided, minimize the mortality of such bycatch." [16 U.S.C. 1851(a)(9).] Contrary to these mandates, the Addendum requires New Jersey to increase the minimum size to 19 inches in the recreational fishery which, based upon the 10 percent mortality rate for discards used by ASFMC and MAFMC, will increase recreational discard mortality to such an extent that the discard mortality will actually be higher than the harvest mortality.

These findings are based on New Jersey's analysis of MRIP data and New Jersey Volunteer Angler Survey (VAS) data. A brief description of the calculations is provided below. Data and a full analysis will be presented to the Policy Board if warranted.

In 2008, the New Jersey VAS was implemented to supplement and complement data collected by the MRIP survey. The VAS is open access and conducted entirely online on a volunteer basis. Data collected include information on the fishing trip (*e.g.* wave, mode, area, number of anglers), catch (species, number caught, number released), and lengths of both harvested and released fish. The VAS collects specific information from anglers on the lengths of harvested and discarded fish from all modes, while discard lengths are not as broadly sampled by the MRIP. Accordingly, New Jersey analyzed the length data provided by VAS participants to determine the overall length frequency of reported summer flounder catch (harvest plus

discards). The data was then used to estimate statistics relative to the proposed 19-inch minimum sizes.

The data shows that by increasing the minimum catch size from 18 inches to 19 inches, more flounder will not meet the minimum harvest size requirements. Those fish that do not meet the minimum harvest size cannot be kept and must be discarded. Since there will be more fish discarded, and applying a 10 percent mortality rate of discards, more fish will die after being returned to the water. Indeed, the VAS length frequency data show that increasing the summer flounder minimum catch size from 18 inches to 19 inches would result in discard mortality that is 16.6 percent greater than harvest mortality using 2016 data. **In other words, at a 19-inch minimum size, the number of undersized (discarded) fish that die after being returned to the water will be greater than the number of fish that will be harvested. This will be the first time in New Jersey history that more summer flounder will die as a result of being discarded than will be harvested by anglers. This is not sound fishery management.**

The results of the VAS analysis carry enormous implications, so a similar analysis was conducted using MRIP data to test the veracity of the results. A query of summer flounder catch and length frequency in New Jersey shows that dead discards exceed harvest by nearly 20 percent under a 19-inch minimum size limit using 2016 data. The percentage by which dead discards exceeds harvest using 2016 MRIP data is consistent with the analysis of 2016 New Jersey VAS data.

These analyses assume no changes to fishing effort with the increased size limit. However, common sense dictates, and our initial discussions with members of the private boat and shore angler communities, along with boat captains, indicate that an increased minimum size limit will result in increased fishing effort due to private boat and shore anglers taking more and/or longer trips in an attempt to harvest legal-sized fish. Increased fishing effort, in turn, equates to additional discards, resulting in even higher discard mortality than projected.

These results have severe negative implications for recreational summer flounder management in New Jersey. Discard mortality that exceeds harvest is not acceptable from a fishery management standpoint and will not be well received by the recreational fishing sector. In addition, increasing the minimum size limit of summer flounder to 19-inches is inconsistent not only with the

ISFMP's standard of minimizing fishery waste, but also with the mandate of National Standard 9 of the Act to minimize bycatch. Under the proposed quota, for anglers to catch a legal-sized fish, they will need to throw back more fish. Since the size limit was increased to 18-inches in 2014, the discard rate in New Jersey has been at least 89 percent.

New Jersey is actively exploring how it can reduce the mortality rate for discards through a combination of education, encouraging the use of hooks that cause less damage to the fish, and other methods that would help to ensure that those fish that do not meet the minimum size have a better chance of survival when returned to the water. By reducing the mortality rate, New Jersey aims to achieve compliance by reducing the overall take of summer flounder.

The issue of regulatory discards has been discussed at length at the Technical Committee and at the Management Board for several years. It was originally included in the Comprehensive Summer Flounder Amendment that was initiated in December 2013 and went out to Scoping Hearings in September 2014. Recreational regulatory discards was one of the most frequently raised issues during the scoping process and at the 14 scoping hearings held along the Atlantic coast. Two hearings were held in New Jersey with as many as 100 members of the public in attendance.

Since that time, however, the Board determined that the comprehensive amendment was too burdensome to decide all at once, and projected that final action and implementation on such an undertaking would not occur until 2020. Therefore, in order to set a more realistic date for action, the Council and Board voted to reduce the scope of the comprehensive amendment and limit the focus to commercial issues.

New Jersey's Mid-Atlantic Fishery Management Council (MAFMC) members and NJ ASMFC Commissioners opposed this decision. In fact, at the February 15, 2017 joint meeting of the Council and Board, New Jersey's Commissioners moved to initiate an Addendum to address summer flounder recreational issues. Our motion, however, did not receive the support of the Board. The Board's inaction signaled to stakeholders that these recreational issues, especially high regulatory discards, are not one of the Board's priorities, contrary to the public's interest.

Disproportionate Removal of Larger Breeding Females

Section 6(a)(1) of the ISFMP Charter states that “management measures shall be designed to . . . maintain over time, abundant, self-sustaining stocks of coastal fishery resources.” But the increased minimum size limits could have the opposite effect because the larger size limits promote the harvest of female summer flounder. New Jersey has documented the fact that the larger summer flounder tend to be females, that 90 percent of the summer flounder that are at least 19 inches in length are breeding females, and that the larger the female the more eggs she carries. Thus, the Board’s decision to increase the minimum size limit for New Jersey waters will likely have the unintended consequence of removing the most productive egg-bearing females from the fishery. Indeed, removing breeding females from the fishery may very well explain the lack of recruitment in recent years.

Over the past several years, at every summer flounder public hearing and in numerous written public comments that have been submitted to ASMFC during the Addendum process, anglers have voiced grave concerns regarding high size limits and their impact on the increased harvest of larger females. The consequences of this measure to the breeding females in the fishery should not be disregarded.

Unfairness & Inequity Among Member States

Second, New Jersey is unfairly and inequitably impacted by the current management measures. Section 6(a)(7) of the ISFMP Charter states that an FMP should “allow internal flexibility within states to achieve its objectives while implemented and administered by the states” and that “[f]ishery resources shall be fairly and equitably allocated or assigned among the states.” This section is consistent with National Standard 4 of the Act, which requires that fishing privileges be allocated in a way that is “fair and equitable to all . . . fishermen.” [16 U.S.C. 1851(a)(4)]

The Board has generally recognized that fish size in state waters varies from north to south and has established minimum size limits accordingly. For example, North Carolina generally has always had a smaller minimum size limit than Massachusetts. Length frequency data from several sources, including MRIP and the NMFS Trawl Survey, show that summer flounder off

the coast of New Jersey are smaller than summer flounder in New York and Connecticut waters, our regional counterparts. Yet despite these differences, New Jersey has been forced by the ASMFC to manage summer flounder as part of a region with New York and Connecticut, thus preventing New Jersey from proceeding with conservation equivalency on terms specific to New Jersey. Instead, New Jersey is forced to abide by whatever management measures New York and Connecticut have determined is best for their anglers without any consideration of the impact on New Jersey anglers. The inequity to New Jersey is a violation of ISFMP standards and National Standard 4.

Failure to Consider Economic and Social Impacts

The Addendum will result in serious and lasting impacts on New Jersey's economy. The fishing industry in New Jersey supports 65,000 jobs and creates \$2.5 billion in economic activity. Of that, the recreational fishing industry accounts for 20,000 jobs and contributes \$1.5 billion to New Jersey's economy. Given the size of New Jersey's fishing industries, it is surprising that neither analysis nor consideration of economic or social impacts was considered in the Addendum, particularly because Section 6(a) and Section 6(b)(1)(v)D of the ISFMP Charter clearly state that social and economic impacts must be taken into account in fishery management programs.

New Jersey has serious concerns about the severe impact that the approved measures could cause to a fishery that is a mainstay for our shore economy during the summer months. The increasingly stringent summer flounder management measures have resulted in a continued economic slowdown. Already reeling from the devastating effects of Superstorm Sandy, each year after the 2012 and 2014 restrictions, recreational fishing trips for summer flounder dropped by 19 percent and 20 percent respectively. Overall, from 2012 through 2015, recreational fishing trips for summer flounder in New Jersey are down 24 percent. Closures of bait and tackle shops, boat rentals, marinas, and for-hire boats have already put these communities in jeopardy as a result of previous management measures since at least 2014. This subject, while raised numerous times by our constituents and staff during public comment, was not properly considered by the Board or ASMFC staff. Not only is the Addendum inconsistent with the ISFMP Charter, it is also inconsistent with National Standard 8 because it does not take into

account the importance of fishery resources to fishing communities using economic and social data.

Compliance and Data Collection Issues

Another unforeseen impact will be compliance difficulties. New Jersey anglers continue to struggle with ever-changing regulations that make it more difficult for them to comply and more difficult for the state to enforce these increasingly stringent regulations. One of the fundamental principles in enacting laws or promulgating regulations is that they be reasonable and that those being regulated can be reasonably expected to follow them. New Jersey's anglers are already suffering the effects of earlier reductions, and our many discussions with those in the recreational fishing industry indicate that they feel the reduction called for in 2017 are unjust and that New Jersey is being singled out unfairly. This recent Board decision will only increase the likelihood that the new regulations will encourage non-compliance so as to avoid what the industry sees as unjust, unfair, and punitive quotas.

A bias that continues to corrupt MRIP data collection must also be taken into account when considering this data. More and more anglers and for-hire captains are deliberately avoiding New Jersey's Access Point Angler Intercept Survey (APAIS) field interviewers. Their avoidance arises from their distrust that ASMFC, MAFMC, and NMFS will use this data against them to continue to destroy their industry. As discussed above, the economic impacts of the ASMFC decision could devastate our fishing and tourism communities this upcoming fishing season. The social impacts will be long-term and make trusting the process very difficult for the State of New Jersey.

Criteria 3: Insufficient/inaccurate/incorrect application of technical information

New Jersey appeals under Criteria 3 based on the Board's improper use of MRIP on a year-to-year basis to set the Recreational Harvest Limit (RHL). MRIP data is unsuitable as a year-to-year management tool for summer flounder because of its variability and untimely collection.

Variability and Untimeliness of MRIP Data Not Appropriate for Yearly Management Approach

The major technical flaw in setting the RHL relates to the use of MRIP data on a year-to-year basis. As explained below, MRIP data was not intended to serve as the basis for yearly quota

management decisions or as the basis for yearly changes to particular management measures. Indeed, MRIP annual harvest estimates, in numbers of fish, are not used on a year-to-year basis for most species under the Commission's management.

The recreational fishery for summer flounder is managed on a "target quota" basis. The commercial sector is allocated 60 percent of the overall coastwide Acceptable Biological Catch (ABC) for summer flounder while the remaining 40 percent is allocated to the recreational sector. Council staff calculates the RHL by factoring in management uncertainty and discards from previous years. The summer flounder management regions, as identified in Addenda XXV and XXVIII, then develop management measures that can "reasonably be expected" to constrain recreational harvest to the RHL.

To establish these measures, MRIP data is used in two ways. The first is to determine the projected harvest estimate for the previous year to measure the effectiveness of management measures in that year. The second is to project forward into the future to set the RHLs for the coming year. However, the use of MRIP data both to set the RHL and to select management measures has historically been deemed impractical by managers and technical experts. This view reflects the limitations of producing timely landing estimates in an attempt to manage the recreational fishery based on a real-time quota and due to the variability from year to year. Data from the MRIP recreational fishery survey are known to be highly variable from year to year due to extremely small (i.e. statistically insignificant) sample sizes. This can produce estimates of harvest that fluctuate despite unchanged management measures.

The variability and timeliness of MRIP data undermine both the accuracy of the data and the confidence anglers put in it. This variability is apparent on a coastwide basis where harvest varies by as much as 50 percent on an annual basis with no change in management measures. In New Jersey, fluctuations in estimated harvest were apparent during the 2014, 2015, and 2016 fishing years. Even though the size and bag limit remained the same for those three years, the recreational harvest limit and the landing estimates varied significantly, both increasing and decreasing for no apparent reason other than gross variability.

To illustrate, from 2012 to 2016 in New Jersey, the recreational expanded harvest estimate ranged from a minimum of 497,482 in 2015 to a maximum of 1,244,432 in 2013. By simply

utilizing a yearly MRIP estimate, the variability associated with this estimate is being ignored. If instead a mean was calculated over the five-year period, the expanded harvest estimate would be 927,090, with a 95% Confidence Interval (CI) from 526,840 to 1,237,527. The 95% CI over the five-year period was very large, ranging from close to the minimum yearly estimate to close to the maximum yearly estimate. When the 95% CI has this wide a range, this suggests that the variability of the estimate was high between years and that there is low confidence in yearly estimates.

In addition to its high variability, MRIP data is not appropriate to use as a yearly measure in setting the RHL because it is not collected in a timely manner. The current timeline of summer flounder management dictates that the Technical Committee (TC) and the MAFMC Monitoring Committee (MC) must begin crafting measures for the following year's fishing season during November of the current year, using preliminary MRIP data for the months January through August and projected harvest of data for the months September through December. The projections are an average of data from the last three years for the months missing when the process begins.

Usually in February of the year for which fishery managers are trying to implement management measures, the TC and MC will receive a preliminary estimate for September and October. The TC will then revise the measures that have been crafted in reaction to the new "preliminary estimates." The ASMFC Board will also meet in February to make a management decision based on preliminary estimates and direct each state to implement the agreed upon measures.

The next feed of data, which is called "final" is usually delivered to the TC in April. Depending on the result of the final data feed, states will need to make adjustments yet again. The issues caused are obvious. Most, if not all states, including New Jersey, require several months to get regulatory changes made to fisheries regulations. The delay in the availability of these data does not allow the required time to make a thorough analysis, therefore management measures are often pushed through without possessing a complete understanding of past performance of measures from previous years.

As the ASMFC Technical Committee presented to the Board at the February 2, 2017 meeting, changing the management measures from year-to-year makes it very difficult to predict the

reliability and effectiveness of management measures put in place on an annual basis. Developing management measures that extend over a period of time, (for example three to five years or until a new benchmark assessment is developed) would result in a more efficient and accurate management structure than the current process and would allow for the anomalous variability of the MRIP estimates to be smoothed over time. Maintaining management measures over multiple years is the best way to react to the trends developed from the MRIP data. The fact that these data are used on an annual basis and not as a multi-year mean is misuse of the data that undermines decision-making.

Criteria 2: “Failure to follow process”

As explained below, the Board failed to follow the proper process to reach its decision in at least three ways. First, the revised Addendum released for public comment on December 23, 2016 differed from that presented to the Board for a vote on February 2, 2017. Second, the Addendum failed to include the Enhanced Opportunity Shore Fishing Program (Program) in the Addendum for public comment. These issues are substantive and go beyond technical corrections to the Addendum. Third, ASMFC failed to properly consider public opposition to the Addendum.

ASMFC’s ISFMP Charter Section 6(c)(9) (iv), states, “Public comments will be evaluated and considered prior to deciding what modifications will be made to the draft FMP or amendment, or draft final FMP or amendment, and prior to approval of the FMP or amendment consistent with the public comment guidelines.” Section 6(b)(3) also requires that the public have an opportunity to review and comment on addenda. The failure to fully and accurately present the Addendum for public comment prior to Board approval hampered the public’s ability to assess and comment upon the recreational summer flounder options.

Inaccuracies in Draft Addendum XXVIII Subject to Public Comment

The Addendum was first released for public comment on December 22, 2016. A revised version of the Addendum was issued on December 23, 2016 with a public comment period open until January 19, 2017. Around January 17, 2017, ASMFC staff determined that there were significant errors in the Addendum. In light of these errors, the ASMFC Summer Flounder, Scup, Black Sea Bass Technical Committee (Technical Committee) met via conference call on January 19,

2017. The Technical Committee decided that three of the five options in the Addendum incorrectly explained the methods used to calculate the tables within the Addendum.

Specifically, the methods described for calculating Options 2-4 differed from the results presented in tables 2-4. Once the Technical Committee had identified these errors, the narrative text was altered to capture the intent of the Addendum and correspond to the tables in the Addendum. Additionally, certain percent reductions in the tables were adjusted at this time due to the mathematical errors found within the original calculations.

Because of the errors in the Addendum, ASMFC should have released, but did not release, an updated version for public comment so that the public would not be misled during the comment period. Instead, on the evening of January 27, 2017, ASMFC staff sent an e-mail to the Board, just five days before the Board meeting where final action was to occur, highlighting the discrepancies in the methods and tables of Options 2-4. ASMFC staff then presented the options with the adjusted language and tables for the first time to the public at the ASMFC Board meeting on February 2, 2017. Since this substantive revision took place well after the public comment period ended on January 19, 2017, the public had no meaningful opportunity to comment on the correct version of these options in violation of Section 6(b)(3) of the ISFMP Charter.

Failure to Include Enhanced Opportunity Shore Fishing Program in Draft Addendum XXVIII

Neither the draft nor the final Addendum contained any reference to the Program for the New York, Connecticut, New Jersey Region (Region). The Program allows specific shore-based access sites a smaller minimum size limit than the rest of the Region. However, this issue was not discussed at the February 2, 2017 Board meeting or during the deliberations to the motions that were eventually approved. Moreover, the status of the Program was not confirmed until receipt of a February 28, 2017 email from the ASMFC Plan Coordinator where he clarified that the size limit for the Program would be 17 inches. The failure to establish criteria for public comment on this subject prior to a final approval is contrary to proper public comment procedures established in ASMFC's ISFMP Charter Section 6(c)(9) (iv).

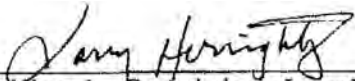
Failure to Properly Consider Public Comments

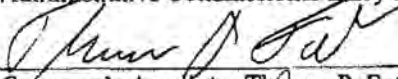
ASMFC held eight public hearings on the proposed addendum from Virginia through Massachusetts. ASMFC held a Public Hearing on the Addendum on January 5, 2017 in Galloway Township, New Jersey with at least 120 members of the public in attendance. A combined total of 103 members of the public attended the other seven hearings held in the other states. At the February 2, 2017 Board meeting, ASMFC staff provided a summary of the comments received during the public comment period. The summary from the New Jersey public hearing included only the following statement: “All in attendance were against all options offered in the draft addendum.” The summary table of all written public comments from all the states (ASMFC Winter Meeting, page 69 of the Board Supplemental materials), which staff presented at the Board meeting, showed overwhelming support to continue the 2016 measures and remain at status quo – far more support than was expressed for any of the five options presented in the Addendum. Based on the overwhelming public support for status quo expressed during the public comment period, and at the February 2, 2017 Board meeting, ASMFC did not adequately consider public comment in selecting their position which is contrary to the ISFMP Charter as outlined above.

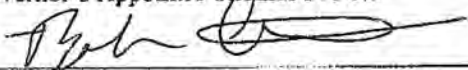
CONCLUSION

The issues raised in this appeal demonstrate that the Board should reconsider the Addendum and immediately address the problems associated with the matter at hand before moving forward. In light of the high discard mortality and associated detrimental effects of increasing the minimum size limitation, and the threat to the jobs of thousands of New Jerseyans and to the multi-million-dollar contribution recreational summer flounder fishing provides to the state’s economy, the Board should consider applying the 2016 management measures for New Jersey. The State of New Jersey appreciates the opportunity to appeal this decision. New Jersey reserves its rights under the provision of the Appeals Process document which states that “upon completion of the appeals process, a state is not precluded from taking further action beyond the Commission process to seek relief.” Thank you for your consideration of this appeal.

Sincerely,
The ASMFC Commissioners of New Jersey


Administrative Commissioner Larry Herrigthy


Governor's Appointee Thomas P. Fote


Legislative Commissioner Assemblyman Sgt. Robert Andrzejczak



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Robert E. Beal, Executive Director

Vision: Sustainably Managing Atlantic Coastal Fisheries

April 14, 2017

Mr. Larry Herrighty
Acting Director
New Jersey Division of Fish and Wildlife
P.O. Box 400
Trenton, New Jersey 08625-0400

Dear Mr. Herrighty,

This letter responds to the State of New Jersey's March 25, 2017 appeal of the Atlantic States Marine Fisheries Commission's (Commission) approval of Addendum XXVIII (Addendum) to the Summer Flounder Interstate Fishery Management Plan (FMP). On April 3, 2017, in accordance with the appeals process, a conference call of the Commission Chair Doug Grout, Vice-Chair Jim Gilmore, past Chair Robert Boyles (Leadership), and staff was convened to review the New Jersey's appeal. The purpose of the review was to assess the issues New Jersey proposes to raise in its appeal and to determine whether those issues are of the type and substantiality that warrants review by the full *Interstate Fisheries Management Program (ISFMP) Policy Board*.

During the call, it was determined the appeal did **not** meet the qualifying guidelines under appeal criterion five (unforeseen circumstances/impacts) and three (incorrect application of technical information), but **could be forwarded** to the ISFMP Policy Board for appeal consideration under criterion two (failure to follow process).

A. Claims Under Criterion Two: Failure to Follow Process

The appeal cited criterion two, "Failure to follow process." Under this criterion, the appeal states the Summer Flounder, Scup and Black Sea Bass Board (Board) did not follow proper process in three ways: (1) the content of the Draft Addendum that was released for public comment differed from what the Board considered for final approval, (2) the Addendum failed to include an option on the enhanced shore mode, and (3) the Commission failed to properly consider public comment. See letter from New Jersey Commissioners to ASMFC Chair Douglas E. Grout, pp. 11-13 (March 24, 2017).

New Jersey correctly notes that there was an error in the Draft Addendum's text which was found prior to the Commission's 2017 Winter Meeting. However, information on the error, which was in the description of the calculation of the measures as specified in the revised Addendum language memo (January 27, 2017), was sent to the Board prior to the meeting. The Board Chair noted the error (and its late correction) at the start of the meeting and suggested the Board proceed with its consideration of the Draft Addendum since the tables within public comment draft, which included example measures, were correct. No Board

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members objected to moving forward with the process. Importantly, the approved option did not contain any errors and was identical to what went out for public comment. At the same time, the fact that there was an error in the Draft Addendum warrants further scrutiny and discussion and – as noted below – Leadership concludes that an appeal as to this issue is justified under criterion two.

However, Leadership rejects the claim that the Commission did not properly consider public comment. The Board was presented an overview of the public comment. Detailed information regarding each of the hearings was included in the briefing materials for members of the Board to review prior to the meeting. In summary, there was an opportunity for public comment and the Board did have the benefit of that comment before reaching its decision. Leadership concludes that substantial grounds for an appeal are not present on this issue.

Natural resource managers are frequently obligated to make decisions that are not consistent with opinions of members of the public. In some cases, management objectives require the adoption of measures that some or most members of the public oppose, this does not mean the public comment was not considered. Here, the Board did consider public comment favoring other approaches, but concluded the measures adopted were nonetheless warranted; Leadership does not find a substantial basis for appeal as to this claim.

New Jersey's appeal letter is correct in observing that the Draft Addendum did not discuss the shore mode program. However, Commission staff notified the states that the shore mode program could still be conducted under the Addendum at the joint meeting with the Mid-Atlantic Fishery Management Council (MAFMC) in December 2016. This is consistent with the shore mode program process in the previous year. Here too, Leadership does not find a valid basis for appeal under the public comment criterion.

B. Claims Under Criterion Three: Application of Technical Information.

The appeal letter cites criterion three, "Insufficient/inaccurate/incorrect application of technical information." New Jersey points to what it regards as the variability and untimeliness of data generated from the Marine Recreational Information Program (MRIP) as not appropriate for yearly management approaches. See letter from New Jersey Commissioners to ASMFC Chair Douglas E. Grout, pp. 8-11 (March 24, 2017).

When considering final action on the Addendum, the Commission fully acknowledged and took into account the uncertainty in MRIP harvest estimates. In particular, it recognized that the confidence intervals around the MRIP harvest estimates constrain our ability to precisely project the impacts of differing management measures. The Commission is constrained in its ability to address this variability, given that summer flounder is jointly managed with the MAFMC and, therefore, falls under the mandates of the Magnuson-Stevens Fishery Conservation and Management Act (MSA). One of these MSA mandates is the establishment of an annual recreational harvest limit (RHL) and associated management measures that seek to constrain harvest to this RHL.

In considering the 2016 harvest estimate relative to the 2017 RHL the Commission determined a reduction in harvest was needed to constrain coastwide harvest to the 2017 RHL. This determination was based on the 2016 harvest estimate from MRIP. The MRIP harvest estimates have been determined to be the best available science for recreational harvest. Until there is another data source or until interpretation of the federal law changes, the Commission is obligated to use the previous year's MRIP data to set the following year's measures. Therefore, Leadership does not find an incorrect application of technical information, and could not justify an appeal on this issue.

C. Claims Under Criterion Five: Unforeseen Circumstances/Impacts.

New Jersey's appeal is partially based on appeal criterion five, "Management actions resulting in unforeseen circumstances/impacts." Under this criterion the appeal cites increased fishery waste, disproportionate removal of larger breeding females, unfairness and inequity among member states, failure to consider economic and social impacts, and compliance and data collection issues. See letter from New Jersey Commissioners to ASMFC Chair Douglas E. Grout, pp. 2-8 (March 24, 2017).

None of these issues, however, constitutes "unforeseen" circumstance or impact. To the contrary, each of these factors was considered and discussed by the Board at either the December 2016 joint meeting with the MAFMC (compliance and data collection issues), the Commission's 2017 Winter Meeting (economic and social impacts), or were included in briefing materials for either of those meetings.

The appeal cites unforeseen circumstances due to increased fishery waste, through discards and disproportionate removal of larger breeding females. Both of these latter concerns were addressed in the MAFMC's staff memo dated November 3, 2016. The Monitoring Committee (MC) concurred with the memo's concerns regarding high size limits and discards. But the MC had reservations in addressing those concerns with slot limits as was recommended by the staff, given the overfishing status of stock and the below-average recruitment of summer flounder observed for the past six years (2010-2015). Slot limits typically result in an increased number of total removals, resulting in increased fishing mortality. There may be concern that increasing the size limit may target more females due to life history characteristics. However, members of the MC have noted that while the proportion of females targeted by an increase in size limit may increase, the total number of females harvested and removed from the population should decrease. This decrease is because the number of fish available for harvest at 19 inches is less than the number at an 18 inch size limit. Therefore, we do expect that the selected management measure will have the intended effect of decreasing harvest for the long term gain of the resource. Given this discussion was summarized in the briefing materials as well as part of the Board deliberations at the joint Board and MAFMC meeting in December 2016, Leadership disagrees with New Jersey's position that these issues were unforeseen.

New Jersey's appeal also cites unforeseen consequences from the one-inch size limit increase specified in the Addendum that would be unfair and inequitably impact New Jersey fisherman. Based on analysis conducted by the Technical Committee, New Jersey's projected

harvest reduction for 2017 under the prescribed measures in the Addendum is approximately 34%. The size limit increase approved in the Addendum distributed the burden of reducing harvest similarly to each state within the management unit, except North Carolina. The projected reductions in harvest due to the size limit increase in 2017 is similar for other states in the Mid-Atlantic region as well along the coast. In particular, New York's projected reduction is 33%, Rhode Island's projected reduction is 34%, and Massachusetts' projected reduction is 31%. This concern was raised by New Jersey at the 2017 Commission Winter Meeting. Given the Board's discussion of this issue and the similarity of the projected reductions, Leadership concludes that New Jersey's claim of unfairness or lack of equity among states is not an unforeseen circumstance justifying appeal to the ISFMP Policy Board.

Further, the appeal also cites unforeseen circumstances due to lack of consideration of economic or social impacts in the Addendum. During the call, Leadership discussed the Commission's practices regarding socioeconomic analyses and determined this Addendum was handled in a manner consistent with our established management process. Due to limited resources, the Commission rarely drafts full socioeconomic analyses for FMPs. However, this does not mean socioeconomic considerations are not part of the Commission's decision-making. In fact, public comment and Advisory Panel input during the public comment period noted concerns on this topic, and those concerns were presented to the Board. Each state delegation brings to the table an extensive knowledge of their fisheries, including the potential impacts of proposed management changes, economic and otherwise on those fisheries. Commissioners commonly highlight these impacts at board meetings prior to significant decisions, as was done with this Addendum. Also, the Commission relies on the public comment process to better understand socioeconomic impacts. Public and Advisory Panel comments noted these concerns and their comments were included in briefing materials for the 2017 Commission Winter Meeting.

As you are aware, the Addendum focuses on the reduction of harvest to address current levels of overfishing as indicated in the 2015 and 2016 stock assessment updates, which were presented to the Board and the MAFMC at previous meetings. These efforts are intended to immediately end overfishing and initiate rebuilding the economically and culturally important summer flounder population, which is on a decline. Board members were aware that, in the short term, a reduction in harvest could result in negative economic impacts to the for-hire sector and broader coastal businesses that support the summer flounder recreational fishery. Further, these potential impacts could affect not only New Jersey, but other states within the management unit. These sorts of impacts are always difficult; but they are, as here, sometimes necessary in service of management objectives to promote healthy and abundant stocks. Since Commissioners recognized and weighed these potential impacts to the states and industry, Leadership does not find the social and economic consequences of this Addendum as unforeseen.

Lastly, under unforeseen impacts, the appeal refers to certain compliance and data collection issues. The appeal raised the issue that management measures are continually changing. From 2014 to 2016 New Jersey maintained fairly consistent regulations with the exception of the New Jersey Delaware Bay fishery, which the state requested a lower size limit (17 inches

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April 14, 2017

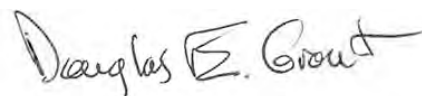
for the Delaware Bay west of COLREGS line) and a reduced possession limit (from 5 to 4 fish for DE Bay west of COLREGS line) to be more closely aligned with Delaware. With the exception of this area-specific modification in 2016, coastal New Jersey has maintained the same minimum size limit (18 inches) and season length (128 days) for three years and same possession limit for four years. Additionally, for the three previous years New Jersey has a shore-based program at Island Beach State Park that allows for a lower size limit of 16 inches. This is a regional exception that New Jersey and Connecticut have been granted for the past three years and is allowed to continue in 2017 consistent with the provisions of the Addendum, which specify a one inch size limit increase. This demonstrates that measures have remained fairly consistent over recent years and changes have largely been driven by New Jersey interests.

Leadership acknowledges that changes in regulations can be difficult. However, adjusting regulations to serve key management objectives is an unavoidable necessity in today's world of fisheries management if we are to be successful in protecting and restoring declining fisheries. Leadership finds that this issue too is not an unforeseen circumstance or impact meriting appeal.

In light of these findings, Leadership finds there are grounds for appeal to the ISFMP Policy Board as to one of the three claims under criterion two advanced in New Jersey's letter – specifically, New Jersey's claim regarding the error in the text of the Draft Addendum. While Leadership has noted several factors that significantly mitigate the impact of this error, given the paramount importance of maintaining the integrity of the Commission's decision-making process, Leadership concludes it is appropriate to provide New Jersey an opportunity to present its appeal on this issue to the ISMFP Policy Board. During the ISFMP Policy Board meeting on May 11, 2017, the ISFMP Director will present background on the Addendum and the Board's justification. Following this presentation, the Commissioners from New Jersey will be provided 15 minutes to present their rationale for the appeal and their suggested resolution of the issue. The ISMFP Policy Board will then be provided an opportunity to discuss the issue and then decide on the appeal. No additional public comment will be taken in connection with the appeal.

Thank you for the continued partnership and commitment to the Commission process and actions.

Sincerely,



Douglas E. Grout
Chair

cc: Thomas P. Fote, Assemblyman Sgt. Robert Andrzejczak, Adam Nowalsky
Interstate Fisheries Management Program Policy Board

L17-39

Atlantic States Marine Fisheries Commission

APPEALS PROCESS

Approved by the ISFMP Policy Board

August 18, 2004

Background

The Atlantic States Marine Fisheries Commission's interstate management process is based on the voluntary commitment and cooperation of the states. The involved states have frequently demonstrated their willingness to compromise and the overall process has proven to be very successful. However, there have been instances where a state/jurisdiction has expressed concern that the Board decisions have not been consistent with language of an FMP, resulted in unforeseen circumstances or impacts, did not follow established processes, or were based on flawed technical information. In order to address these concerns, the ISFMP Policy Board charged the Administrative Oversight Committee with "exploring and further developing an appeals process".

Under the current management process the primary policy development responsibility lies with species management boards. And, in the case of development of new fishery management plans or amendments the full Commission has final approval authority prior to implementation. The purpose of the appeals process is to provide a mechanism for a state/jurisdiction to petition for a management decision to be reconsidered, repealed or altered. The appeals process is intended to only be used in extraordinary circumstances where all other options have been exhausted. The management boards have the ability to go back and correct errors or address additional technical information through the recently clarified process on "amending or rescinding previous board actions".

During the December 2003 ISFMP Policy Board meeting, the decision was made to continue to have the Policy Board serve as the deliberative body that will consider valid appeals. This decision is consistent with the language that is included in the ISFMP Charter. However, the Charter does not provide detailed guidance on how an appeal is to be addressed.

This paper details for the Commission appeals process.

Appeal Criteria –The intent of the appeals process is to provide a state with the opportunity to have a decision made by a species management board or section reconsidered by the Policy Board. The following criteria will be used to guide what type of decisions can be appealed. In general, management measures established through the FMP/amendment/addendum process can be appealed. However, the appellant must use one of the following criteria to justify an appeal:

1. Decision not consistent with FMP
2. Failure to follow process
3. Insufficient/inaccurate/incorrect application of technical information
4. Historical landings period not adequately addressed

5. Management actions resulting in unforeseen circumstances/impacts

The following issues could not be appealed:

1. Management measures established via emergency action
2. Out-of-compliance findings (this can be appealed but, through a separate, established process)
3. Changes to the ISFMP Charter

Appeal Initiation – The ISFMP Charter provides that a state aggrieved by a management board action can appeal to the ISFMP Policy Board. Any state can request to initiate an appeal; also a group of states can submit a unified request for an appeal. The states are represented on the Commission by three representatives that have the responsibility of acting on behalf of the states’ Executive and Legislative branches of government. Therefore, in order to initiate an appeal all seated Commissioners (not proxies) of a state’s caucus must agree that an appeal is warranted and must sign the letter submitted to the Commission. If a multi-state appeal is requested all the Commissioners from the requesting states must sign the letter submitted to the Commission. During meetings where an appeal is discussed proxies will be able to participate in the deliberations. Meeting specific proxies will not be permitted to vote on the final appeal determination, consistent with Commission policy.

A state (or group of states) can request and appeal on behalf of the Potomac River Fisheries Commission, District of Columbia, National Marine Fisheries Service, or the United States Fish and Wildlife Service.

The letter requesting an appeal will be submitted to the Chair of the Commission and include the measure(s) or issue(s) being appealed, the justification for the appeal, and the commitment to comply with the finding of the Policy Board. This letter must also include a demonstration that all other options to gain relief at the management board level have been exhausted. This letter must be submitted via certified mail at least **45 days** prior to a scheduled ASMFC Meeting Week. The Commission Chair, Vice-Chair and immediate past Chair will determine if the appeal meets the qualifying guidelines and notify the Policy Board of their decision. If the immediate past chair is no longer a commissioner the Chair will select an alternate from a state that is not affected by the appeal.

Convene a “Fact Finding” Committee (optional) -- Upon review of the appeal documentation, the Commission Chair, Vice-Chair and immediate past Chair (or alternate if necessary, as described above) may establish a “Fact Finding” Committee to conduct analyses and/or compile additional information if necessary. This group will be made up of individuals with the technical expertise (including legal, administrative, social, economic, or habitat expertise if necessary) and familiarity with the fishery to conduct the necessary analysis. If such a committee is convened the schedule included in the last section of this document may need to be adjusted to provide time for the Committee to conduct analyses. The Commission Chair, Vice-Chair and immediate past Chair (or

alternate if necessary, as described above) may set a deadline for the Committee to complete its work to ensure the appeal is addressed in a timely manner.

ISFMP Policy Board Meeting –Following the determination that an appeal has met the qualifying guidelines, a meeting of the Policy Board will be convened at a scheduled ASMFC meeting week. The agenda of this meeting will be set to allow sufficient time for all necessary presentations and discussions. The Chair of the Commission will serve as the facilitator of the meeting. If the Chair is unable to attend the meeting or would like to more fully participate in the deliberations, the Vice-Chair of the Commission will facilitate the meeting. The ISFMP Director will provide the background on the development of the management program as well as a summary of the justification provided in the record for the management board’s action. The ISFMP Director will also present the potential impacts of the appeal on other affected states. The appellant Commissioners will present their rationale for appealing the decision and provide a suggested solution. The Policy Board will then discuss the presentations and ask any necessary questions. The Board will vote to determine if the management board’s action was justified. A simple majority of the Policy Board is required to forward a recommendation to a management board for corrective action. If the Policy Board determines that the existing management program should be modified, it will issue a finding to that effect as well as any guidance regarding corrective action to the appropriate species management board. The referral may be worded to allow the management board flexibility in determining the details of the corrective action.

Upon receipt of the Policy Board’s recommendation the management board will discuss the findings and make the necessary changes to address the appeal. The management board is obligated to make changes that respond to the findings of the Policy Board. A simple majority of the management board will be necessary to approve the changes.

Appeal Products and Policy Board Authority—Following the Policy Board meeting a summary of the meeting will be developed. This summary will include a detailed description of the findings and will be forwarded to the appropriate management board and Policy Board upon completion. If the Policy Board determines that changes to the management program are necessary, the summary may include guidance to the management board for corrective action. The report of the Policy Board will be presented to the management board for action at the next scheduled meeting.

Considerations to Prevent Abuse of the Appeals Process – The appeals process is intended to be used only in extraordinary situations and is in no way intended to provide a potential avenue to preempt the established board process. The initiation of an appeal will not delay the Commission process for finding a state out of compliance nor delay or impede the imposition of penalties for delayed compliance.

Limiting Impacts of Appeal Findings – If a state is successful in an appeal and the management program is altered, another state may be negatively impacted by the appeals decision. In order to prevent an appeals “chain reaction,” the Policy Board’s recommendation and the resulting management board’s decision will be binding on all

states. All states with an interest in the fishery will be obligated to implement the changes as approved by the management board. Upon completion of the appeals process, a state is not precluded from taking further action beyond the Commission process to seek relief.

If the Policy Board supports the appeal and determines that corrective action is warranted, the potential for management changes to negatively impact other states will be evaluated by the Policy Board and the species management board.

Appeals Process Timeline

1. Within **15 working days** of receipt of a complete appeal request the Commission Chair, Vice-Chair, and immediate past chair (or alternate) will determine if the state has an appeal which meets the qualifying guidelines.
2. Upon a finding that the appeal meets the qualifying guidelines, the appeal will be included on the agenda of the ISFMP Policy Board meeting scheduled during the next ASMFC Meeting Week (provided an adequate time period is available for preparation of the necessary documentation).
3. Following the finding that an appeal meets the qualifying guidelines, Commission staff and the appellant commissioners will have a minimum of **15 working days** to prepare the necessary background documents.
4. The background documents will be distributed at least **15 days** prior to the Policy Board meeting.
5. A summary of the Policy Board meeting will be developed and distributed to all Commissioners within **15 working days** of the conclusion of the meeting.

Atlantic States Marine Fisheries Commission

**ADDENDUM XXVIII TO THE SUMMER FLOUNDER, SCUP, BLACK SEA BASS
FISHERY MANAGEMENT PLAN**

Summer Flounder Recreational Management in 2017



Approved February 2, 2017

Sustainably Managing Atlantic Coastal Fisheries

1.0 Introduction

Addendum XXVIII is adopted under the adaptive management/framework procedures of Amendment 12 and Framework 2 that are a part of the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan (FMP). Summer flounder, scup, and black sea bass fisheries are managed cooperatively by the states through the Atlantic States Marine Fisheries Commission (Commission) in state waters (0-3 miles), and through the Mid-Atlantic Fishery Management Council (Council) and the NOAA Fisheries in federal waters (3-200 miles). The management unit for summer flounder in US waters is the western Atlantic Ocean from the southern border of North Carolina northward to the US-Canadian border.

The Commission's Summer Flounder, Scup, and Black Sea Bass Management Board (Board) approved the following motion on October 25, 2016:

Move to initiate an addendum to consider adaptive management, including regional approaches, for the 2017 summer flounder recreational fishery.

This Addendum establishes management of the 2017 recreational summer flounder fishery.

2.0 Overview

2.1 Statement of the Problem

A fundamental goal of Commission FMPs is to provide recreational anglers with fair and equitable access to shared fishery resources throughout the range of each managed species. The Commission's ISFMP Charter establishes fairness and equity as guiding principles for the conservation and management programs set forth in the Commission's FMPs. While the current FMP for summer flounder does not include a goal pertaining to this concept, the Board and Council are considering a new goal for inclusion in the forthcoming Comprehensive Summer Flounder Amendment: "Provide reasonable access to the fishery throughout the management unit." With these principles and goals in mind, the challenges facing the Board (and Council) involve determining what is meant by fair/equitable/reasonable access, and how to achieve it.

Complicating the access issue for 2017 is the significant reduction to the coastwide recreational harvest limit (RHL) set by the Board and Council in August 2016 in response to the most recent Stock Assessment Update. The 2017 RHL is 3.77 million pounds, an all-time low. By way of comparison, the RHL for 2017 is approximately 30% less than 2016, 48% less than 2015, and 68% less than 2011, when it peaked at 11.68 million pounds. Using a projected recreational harvest in 2016 of 6.38 million pounds (subject to change), harvest in 2017 must be reduced by roughly 2.6 million pounds to not exceed the 2017 RHL.

This Addendum addresses the issue that available management approaches are not viewed as providing a fair and reasonable way to constrain the 2017 recreational summer flounder fishery harvest to the RHL. The Board recognizes the management program within this addendum will also

have shortcomings with regards to addressing this problem, and thus intends for it to be an interim program while focusing on the development of a more comprehensive solution for the future.

2.2 Background

Amendment 2 (1993) initially required each state (Massachusetts through North Carolina) to adopt the same minimum size, possession limit, and season length as established in federal waters for the recreational fishery, allowing only for different timing of open seasons. The consistent measures were intended to uniformly impact the resource and stakeholders in all state and federal waters throughout the management unit. However, the states later determined one set of management measures applied coastwide did not provide equitable access to the resource due to the significant geographic differences in summer flounder abundance and size composition.

To address this disparity, the FMP was amended in 2001 (Framework Adjustment 2) to allow for the use of state-specific “conservation equivalent” management, through which recreational harvest would be constrained the same as under coastwide management. The Board and Council would engage in an annual process of determining whether to manage the fishery with coastwide measures or state-specific conservation equivalency; if the latter, the Board would have the lead in approving state-specific regulations. Concurrently, the Board adopted a series of addenda (Addenda III and IV in 2001, and Addendum VIII in 2004) implementing state-based conservation equivalency. Estimates of state recreational landings in 1998 were established as the basis for state recreational allocations- this is outlined in Addendum VIII (see Table 1) upon which state-by-state regulations could be developed. From 2001-2013, the Board and Council opted to use state-specific conservation equivalency tied to the proportion of each state’s estimated 1998 recreational landings. This provided states with the flexibility to tailor their regulations—i.e., minimum size, possession, and season limits—to meet the needs and interests of their fishery, provided their targets were not exceeded.

Table 1. State summer flounder harvest in 1998 and the proportion of harvest conservation equivalency state-by-state harvest targets are based on (Addendum VIII)

| State | 1998 estimated harvest (thousands) | Percent of the 1998 harvest |
|--------------|---|------------------------------------|
| MA | 383 | 5.5% |
| RI | 395 | 5.7% |
| CT | 261 | 3.7% |
| NY | 1,230 | 17.6% |
| NJ | 2,728 | 39.1% |
| DE | 219 | 3.1% |
| MD | 206 | 3.0% |
| VA | 1,165 | 16.7% |
| NC | 391 | 5.6% |

The Board also adopted Addendum XVII in 2005, enabling the states to voluntarily opt into multi-state regions that would set regulations based on a pooling of their 1998-based allocations. The Council followed suit with the adoption of Framework Adjustment 6 in 2006, complementing the regional approach set forth by Addendum XVII. However, no states used this optional regional conservation equivalency approach.

Re-assessing in the Face of Changing Conditions:

The use of state-by-state regulations based on estimated state harvests in 1998 succeeded, initially, in mitigating the disparity in conservation burden among states, but later became viewed as an inadequate long-term solution, given changes in resource status and fishery performance.

As 2013 came to an end, the Board identified the following problems with the use of state allocations based on estimates of recreational harvest in 1998:

- 1) Substantial variation in stock dynamics since 1998. These included a six-fold increase in spawning stock biomass and expansion of the age structure from including 2–3 age classes to 7 or more. These changes led to geographic shifts in the distribution of the resource; as the stock rebuilt, its range expanded. Climate change was also identified as possibly contributing to shifts in migratory patterns, spatially and temporally.
- 2) Substantial changes in socio-economic patterns since 1998, particularly with regard to the number and distribution of anglers along the coast. For example, estimated angler participation increased significantly, and a growing percentage of harvest was attributed to private/rental vessels in contrast to shore-based and party/charter vessel harvest. Industry advisors indicated the rising costs of fuel, bait, and other trip expenditures were impacting angler effort.
- 3) Possible error in the estimates of harvest for 1998. Measuring recreational catch and effort, particularly on a state-by-state basis, is challenging and not without uncertainty in the estimates. The methods used to estimate recreational catch and effort are continually evolving, resulting in more accurate and precise estimates in more recent years.
- 4) Major disparities in the regulatory programs among the states; for example, as recently as 2012 and 2013, no two states had the same regulations, and several neighboring states had regulations that differed significantly. A case in point was New York, whose regulations were more restrictive than any other state, and that contrasted markedly with those of New Jersey, Connecticut, and Rhode Island.

To address these concerns, the Board adopted Addendum XXV, which implemented conservation equivalency on a regional basis for 2014. Five¹ regions were established: 1) Massachusetts; 2) Rhode Island; 3) Connecticut, New York, and New Jersey; 4) Delaware, Maryland, and Virginia; and 5) North Carolina. All states within each region were required to have the same possession limit, size limit, and season length.

¹ Initially, in February 2014, the Board established four regions, one being Massachusetts and Rhode Island combined. Subsequently, in March 2014, the Board approved a request from Massachusetts and Rhode Island to split its region into individual state regions to account for the significantly different recreational fisheries of the two states.

Although the precursors to Addendum XXV (Addendum XVII and Framework Adjustment 6) envisioned a regional approach based on regional harvest limits set as the sum of the harvest limits for all the states in each region, with accountability based on the performance of each region relative to its regional limit, Addendum XXV implemented an alternative approach. Based on analysis provided by the Board's Technical Committee, the Board focused on developing regulations for each region that would lead to projected regional harvests that would collectively achieve, but not exceed, the coastwide recreational harvest limit. The projected regional harvests did not constitute the sum of the harvest limits for all the states in each region. As such, the approach constituted a de facto reallocation of recreational harvest opportunities. Nonetheless, the Board emphasized that:

The new approach is not intended to implement new state allocations and is not intended to set a precedent for new state allocations. Under the adaptive regional approach, states would not give up their (1998-based) allocated portion of the Recreational Harvest Limit (RHL), would not be held accountable for anything other than their allocated portion of the RHL, and would retain the future opportunity (depending on what management approach is adopted for 2015) to continue managing their fisheries in accordance with their allocated portion of the RHL.

To achieve regulatory uniformity within each region, and to meet the coastwide harvest target, regulatory revisions were enacted for CT, NY, NJ, DE, and MD in 2014 (Table 7).

For 2015, the Board continued regional management, with the same regions, via Addendum XXVI. For all states, the same regulations in effect for 2014 were maintained for 2015 (Table 7).

For 2016, the Board again continued regional management via Addendum XXVII, with one adjustment to provide more equity in recreational opportunities for anglers in the Delaware Bay. That adjustment involved establishing New Jersey as a stand-alone region, with the caveat that New Jersey would enact separate management measures for the New Jersey portion of Delaware Bay, while maintaining regulations for the rest of its waters consistent with those of New York and Connecticut. New Jersey complied by enacting regulations for Delaware Bay that were closer to those of Delaware. For all other states the same regulations in effect for 2014 and 2015 were maintained for 2016 (Table 6).

Beginning 2017, the Board continues to have the same concern about disproportionate impacts among states from the use of 1998-based allocations and state-by-state management measures. A return to coastwide management measures is also unlikely to provide equitable access.

2.3 Description of the Fishery

In practice, the recreational fishery for summer flounder is managed on a "target quota" basis. A set portion (40%) of the total allowable landings is established as a recreational harvest limit (RHL), and management measures are established by the states that can reasonably be expected to constrain recreational harvest to this limit each year. It has historically been deemed impractical, because of the limitations of producing timely landing estimates, to try to manage the recreational fishery based on a real-time quota.

Over the past nine years, the coastwide landings exceeded the annual coastwide RHL three times: 2007, 2008, and 2014 (Table 2). The most recent overage in 2014 was by approximately 5% (approximately 380,000 pounds). Based on preliminary harvest estimates through August 2016, coastwide landings have already exceeded the 2016 RHL. The 2016 harvest estimates are subject to change as many states seasons remain open and data for wave 6 (November-December) are not yet available. Projected harvest through the end of 2016—based on state harvest trends in 2015—indicated the final harvest may be approximately 6.38 million pounds (Table 3).

Table 2. Coastwide Harvest Relative to Coastwide RHL: 2007-2016

| Year | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|-----------------------------|----------------|---------------|--------|--------|--------|--------|--------|----------------|--------|----------------|
| Coastwide Harvest (mil. lb) | 9.34 | 8.15 | 6.03 | 5.11 | 5.96 | 6.49 | 7.36 | 7.39 | 4.72 | 6.38 |
| Coastwide RHL (mil. lb) | 6.68 | 6.21 | 7.16 | 8.59 | 11.58 | 8.49 | 7.63 | 7.01 | 7.38 | 5.42 |
| Percent of RHL harvested | 139.77% | 131.25 | 84.22% | 59.47% | 51.43% | 76.44% | 96.40% | 105.41% | 63.97% | 117.00% |

*2016 Harvest is preliminary, through October only, and subject to change.

Table 3. Projected Coastwide Harvest for 2016 by states

| State | Jan-Aug Estimate | | Sep-Dec Projection | | Projected Total Harvest | |
|--------------|------------------|------------------|--------------------|----------------|-------------------------|------------------|
| | Weight | Numbers | Weight | Numbers | Weight | Numbers |
| MA | 121,791 | 53,294 | 4,860 | 3,348 | 126,651 | 56,642 |
| RI | 278,682 | 89,988 | 6,927 | 2,833 | 285,610 | 92,821 |
| CT | 690,786 | 218,019 | 3,875 | 1,352 | 694,661 | 219,371 |
| NY | 2,238,513 | 712,643 | 55,118 | 18,164 | 2,293,630 | 730,807 |
| NJ | 1,904,113 | 609,878 | 573,966 | 181,181 | 2,478,080 | 791,059 |
| DE | 206,558 | 82,097 | 18,075 | 7,432 | 224,634 | 89,229 |
| MD | 42,574 | 18,537 | 9,123 | 4,538 | 51,697 | 23,075 |
| VA | 188,576 | 75,029 | 12,460 | 5,093 | 201,037 | 79,332 |
| NC | 16,870 | 9,605 | 12,152 | 7,469 | 29,021 | 17,074 |
| Total | 5,688,463 | 1,869,090 | 696,557 | 230,320 | 6,385,020 | 2,099,410 |

*September-December harvest are projected using proportion of landings by two-month wave by state in 2015.

**Total Projected Harvest is based on preliminary information and is subject to change as new information is made available.

Recreational Survey Estimates

The Marine Recreational Information Program, or MRIP, is a program under NOAA Fisheries which counts and reports marine recreational catch and effort. MRIP is driven by data provided by anglers and captains. MRIP replaced the Marine Recreational Fisheries Statistics Survey, or MRFSS, in 2008, which had been in place since 1979. MRIP is designed to meet two critical needs: (1) provide the detailed, timely, scientifically sound estimates that fisheries managers, stock assessors, and marine scientists need to ensure the sustainability of ocean resources and (2) address head-on stakeholder concerns about the reliability and credibility of recreational fishing catch and effort estimates. MRIP is an evolving program with ongoing improvements. Detailed information on MRIP and the improvements can be found at <http://www.st.nmfs.noaa.gov/recreational-fisheries/index>. All recreational catch and effort data considered in this document are derived from MRIP.

2.4 Status of the Stock

The most recent peer-reviewed benchmark assessment for summer flounder (Northeast Regional Stock Assessment Workshop 57, NEFSC 2013) was updated in July 2016. The assessment utilizes an age-structured assessment model called ASAP. Results of the assessment update indicate the summer flounder stock was not overfished but overfishing was occurring in 2015 relative to the updated biological reference points established in the 2013 SAW 57 assessment. The fishing mortality rate has been below 1.0 since 1997, but was estimated to be 0.390 in 2015, above the threshold fishing mortality reference point $F_{MSY} = 0.309$ (Figure 1). Spawning stock biomass (SSB) was estimated to be 88.9 million pounds (36,240 mt) in 2015, about 58% of the biomass target $SSB_{MSY} = 137.555$ million pounds (62,394 mt) and 16% above the biomass threshold (Figure 2). The 2015 year class is estimated to be about 23 million fish at age 0, continuing the trend of below-average year classes for the past six years (2010-2015).

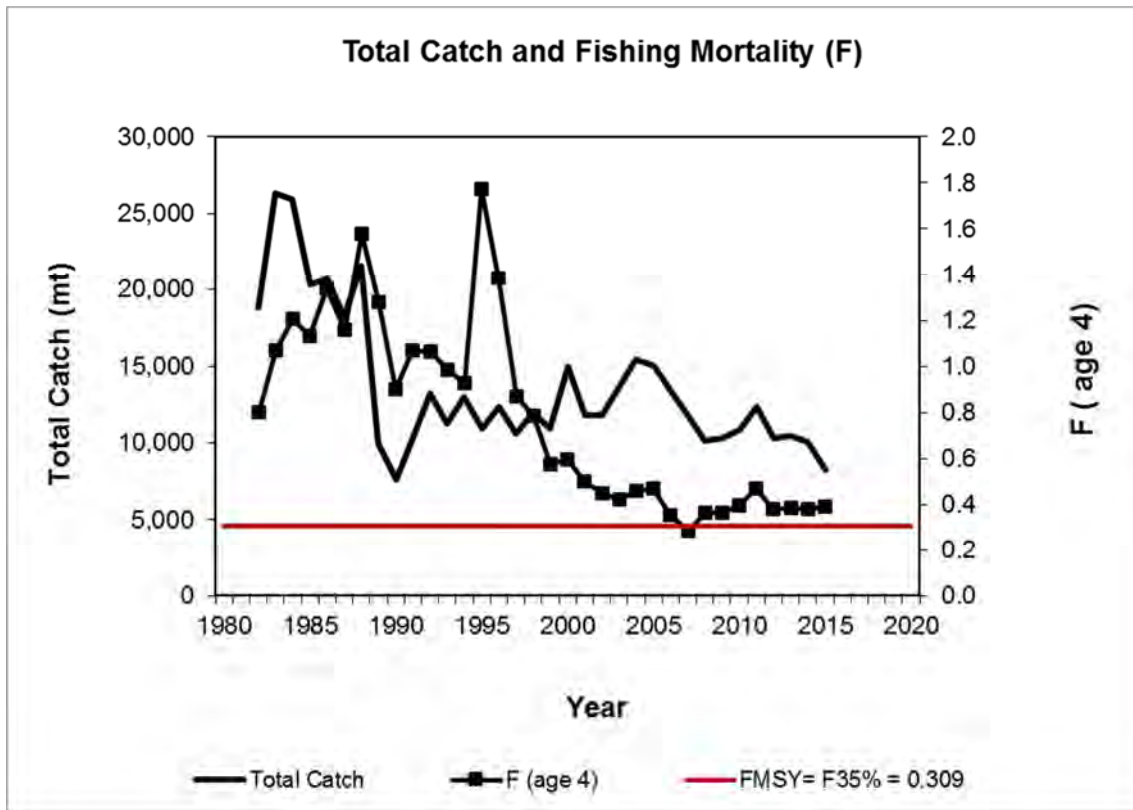


Figure 1. Total fishery catch and fully-recruited fishing mortality (F, peak at age 4) of summer flounder. The horizontal red line is the 2013 SAW 57 fishing mortality threshold reference point proxy. Source: NEFSC Summer Flounder Stock Assessment Update for 2016 (June 2016).

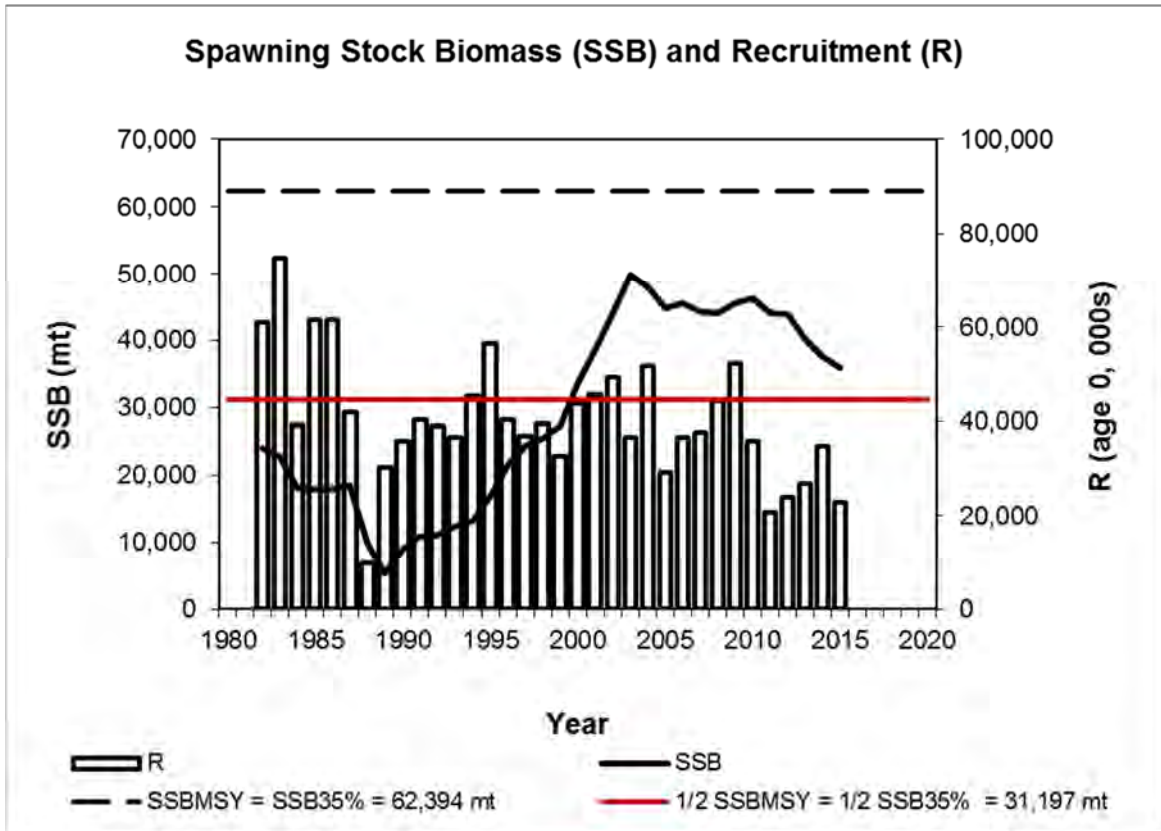


Figure 2. Summer flounder spawning stock biomass (SSB) and recruitment at age 0 (R) by calendar year. The horizontal dashed line is the 2013 SAW 57 biomass target reference point proxy; the horizontal red line is the biomass threshold reference point proxy. Source: NEFSC Summer Flounder Stock Assessment Update for 2016 (June 2016).

A breakdown of the 2017 Overfishing Limit (OFL), Acceptable Biological Catch Limit (ABC), Annual Catch Limits (ACL), Annual Catch Targets (ACT), and subsequent coastwide RHL based on the 2016 stock assessment update is included in Table 4. The 2017 proposed harvest limit is a time series low as the result of the biomass projections from the 2016 stock assessment update.

Table 4. Basis for 2017 summer flounder catch and landings limits. Numbers may not add precisely due to unit conversions and rounding.

| Management Specifications | 2016 | | 2017 | | Basis for 2017 Limits |
|----------------------------|---------|-------|---------|-------|---|
| | mil lb. | mt | mil lb. | mt | |
| OFL | 18.06 | 8,194 | 16.76 | 7,600 | Stock assessment projections |
| ABC | 16.26 | 7,375 | 11.30 | 5,125 | Stock assessment projections/ SSC recommendation |
| Commercial ACL | 9.42 | 4,275 | 6.57 | 2,982 | 60% of ABC landings portion (per FMP allocation) + 49% of ABC discards portion |
| Commercial ACT | 9.42 | 4,275 | 6.57 | 2,982 | Monitoring Committee recommendation: no deduction from ACL for management uncertainty |
| Commercial Quota | 8.12 | 3,685 | 5.66 | 2,567 | Commercial ACT, less projected commercial discards |
| Recreational ACL | 6.84 | 3,100 | 4.72 | 2,143 | 40% of ABC landings portion (per FMP allocation) + 51% of ABC discards portion |
| Recreational ACT | 6.84 | 3,100 | 4.72 | 2,143 | Monitoring Committee recommendation; no deduction from ACL for management uncertainty |
| Recreational Harvest Limit | 5.42 | 2,457 | 3.77 | 1,711 | Recreational ACT, less projected recreational discards |

3.0 Management Program

The 2017 summer flounder recreational fishery will divide the coast into six management regions (similar to 2016): 1) Massachusetts 2) Rhode Island 3) Connecticut-New York 4) New Jersey 5) Delaware-Virginia and 6) North Carolina. The combined management program of all 6 regions is designed to not exceed the 2017 recreational harvest limit.

Each region, except for North Carolina, is required to increase the minimum size by one inch from the 2016 size limit (Note: North Carolina is exempt as long as the state’s harvest remains low because its fishery is confounded by three species of similar flatfish for which consistency in regulations is ideal). Each Region is required to have a possession limit of 4 fish or less.

This approach moves away from using the 1998-based allocations to set regional targets, based on the concerns listed in Section 2.2 Background (page 2). Additionally, the past three years have shown how variable annual harvest at the coastal (50%), regional (>60%), and state (>100%) level can be despite consistent measures across the years, underscoring the difficulty of using prior year harvest to predict future year harvest. The Commission recognizes the confidence intervals around the harvest estimates limit the ability to precisely project the impacts of differing management measures. The approach thus applies broad action across all states to reduce harvest and provide for more coastwide consistency in regulations.

Table 5. Example 2017 Regional Management Measures

| STATE | 2016 Projected Harvest | Example Size Limit | Example Possession Limit | Example Season (# of days) |
|--|------------------------|--------------------|--------------------------|-----------------------------|
| MASSACHUSETTS | 56,642 | 17" | 4 fish | 125 |
| RHODE ISLAND | 92,821 | 19" | 4 fish | 245 |
| CONNECTICUT NEW YORK | 950,178 | 19" | 3 fish | 128 |
| NEW JERSEY* | 782,142 | 19" | 3 fish | 128 |
| NEW JERSEY/ DELAWARE BAY COLREGS** | 8,916 | 18" | 3 fish | |
| DELAWARE MARYLAND VIRGINIA | 191,636 | 17" | 4 fish | 365 |
| NORTH CAROLINA | 17,074 | 15" | 4 fish | 365 |

*New Jersey east of the COLREGS line at Cape May, NJ will have management measures consistent with the northern region of Connecticut – New York.

**New Jersey west of the COLREGS line at Cape May, NJ inside Delaware Bay will have a similar size limit to the southern region (DE-VA), the same possession limit and the same season length as the northern region of Connecticut – New York.

Management for 2018

If the Board chooses to continue this management program for 2018, the following outlines the process for setting harvest targets:

The TC will use harvest estimates and fishery performance from 2017 to evaluate the 2018 regional management approach. **If the coastwide RHL is exceeded, then region specific harvest will be evaluated, with the understanding that more restrictive management measures will be needed to constrain regional harvest in 2018. If the predicted 2018 combined regional harvest is higher than the 2018 RHL, regions will have to adjust their management measures in 2018.** The TC will develop proposed measures for each region that, when combined, will constrain the coastwide harvest to the 2018 RHL. Any number of size, possession, and season combinations can be evaluated when looking at regional management.

3.1.1 Timeframe for Summer Flounder Measures

For 2017 and ability to extend through 2018 (One year extension)

The management program outlined in section 3.0 will be in place for 2017. The Board could take action, through a Board vote, to extend the addendum for one year, expiring at the end of 2018. After 2018 (or for 2018 if the Board does not extend the Addendum into 2018), measures would revert back to the FMP status quo coastwide/conservation equivalency measures.

4.0 Compliance:

The management program for summer flounder contained in Section 3.0 of Addendum XXVIII are effective immediately upon its approval (February 2, 2017). States will go through their administrative procedure to implement regional management measures to cumulatively achieve the needed coastwide reduction for 2017. Once management measures are finalized, the states must notify the Board of their final 2017 management measures by March 1, 2017. If a state or region does not implement management measures to cumulatively achieve across the regions the needed 2017 reduction, that state or region must implement the precautionary default management measures. The Board and Council approved in December 2016 precautionary default measures for 2017 that include a minimum size of 20 inches total length, a possession limit of 2 fish, and a season of July 1–August 31. These measures would be in place for both state and federal waters of the state or region in question. If a state or region does not implement either sets of measures, that state or group of states may be found out of compliance. States measures will made available to the public as soon as they are finalized.

Tables and Figures

Table 6. 2016 Summer Flounder Recreational Management Measures. Color blocking indicates regions

| State | Minimum Size (inches) | Possession Limit | Open Season |
|--|-----------------------|------------------|------------------------|
| Massachusetts | 16 | 5 fish | May 22-September 23 |
| Rhode Island | 18 | 8 fish | May 1-December 31 |
| Connecticut | 18 | 5 fish | May 17- September 21 |
| CT Shore Program (46 designed shore sites) | 16 | | |
| New York | 18 | 5 fish | May 17- September 21 |
| New Jersey* | 18 | 5 fish | May 21- September 25 |
| NJ Shore program (1 designated site) | 16 | 2 fish | |
| New Jersey/Delaware Bay COLREGS** | 17 | 4 fish | |
| Delaware | 16 | 4 fish | January 1- December 31 |
| Maryland | 16 | 4 fish | January 1- December 31 |
| PRFC | 16 | 4 fish | January 1- December 31 |
| Virginia | 16 | 4 fish | January 1- December 31 |
| North Carolina | 15 | 6 fish | January 1- December 31 |

*New Jersey east of the COLREGS line at Cape May has management measures consistent with the northern region of Connecticut – New York.

**New Jersey west of the COLREGS line at Cape May, NJ inside Delaware Bay has a similar size limit to the southern region (DE-VA), the same possession limit as the southern region (DE-VA), and the same season length as the northern region of Connecticut – New York.

Table 7. State regulations, 2013–2016. 2013 represents the last year state-by-state regulations applied; regional management applies 2014–2016. Color blocking indicates regions. Red font indicates change from prior year.

| | 2013 | 2014 | 2015 | 2016 |
|--------------------------------|-------------------------------------|-----------------------------------|-----------------------------------|--|
| MA | 16" 5 fish May 22-Sep 30 | 16" 5 fish May 22-Sep 30 | 16" 5 fish May 22-Sep23* | 16" 5 fish May 22-Sep 23 (125 day season) |
| RI | 18" 8 fish May 1-Dec 31 | 18" 8 fish May 1-Dec 31 | 18" 8 fish May 1-Dec 31 | 18" 8 fish May 1-Dec 31 (245 day season) |
| CT | 17.5"*** 5 fish May 15-Oct 31 | 18"*** 5 fish May 17-Sep 21 | 18"*** 5 fish May 17-Sep21 | 18"*** 5 fish May 17-Sep21 (128 day season) |
| NY | 19" 4 fish May 1-Sep 29 | 18" 5 fish May 17-Sep 21 | 18" 5 fish May 17-Sep21 | 18" 5 fish May 17-Sep21 (128 day season) |
| NJ Coast | 17.5" 5 fish May 18-Sep16 | 18"*** 5 fish May 23-Sep 27 | 18"*** 5 fish May 23-Sep 26 | 18"*** 5 fish May 21-Sep 25 (128 day season) |
| NJ Delaware Bay | 17.5" 5 fish May 18-Sep16 | 18" 5 fish May 23-Sep 27 | 18" 5 fish May 23-Sep 26 | 17" 4 fish May 21-Sep 25 (128 day season) |
| DE | 17" 4 fish Jan 1-Dec 31 | 16" 4 fish Jan 1-Dec 31 | 16" 4 fish Jan 1-Dec 31 | 16" 4 fish Jan 1-Dec 31 (365 day season) |
| MD | 16" 4 fish Mar 28-Dec 31 | 16" 4 fish Jan 1-Dec 31 | 16" 4 fish Jan 1-Dec 31 | 16" 4 fish Jan 1-Dec 31 (365 day season) |
| VA | 16" 4 fish Jan 1-Dec 31 | 16" 4 fish Jan 1-Dec 31 | 16" 4 fish Jan 1-Dec 31 | 16" 4 fish Jan 1-Dec 31 (365 day season) |
| NC | 15" 6 fish Jan 1-Dec 31 | 15" 6 fish Jan 1-Dec 31 | 15" 6 fish Jan 1-Dec 31 | 15" 6 fish Jan 1-Dec 31 (365 day season) |

*MA change in season not due to cut, but correction of error from prior year

**CT has 45 designated coastal sites where minimum size is 16" for the 5-fish limit, 2013–2016

***NJ has 1 designated coastal site where 2 fish at 16" can be taken, 2014–2016 (another 3 at 18" can be taken outside of the designated site)



Atlantic States Marine Fisheries Commission

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Douglas E. Grout (NH), Chair James J. Gilmore, Jr. (NY), Vice-Chair Robert E. Beal, Executive Director

Vision: Sustainably Managing Atlantic Coastal Fisheries

TO: ASMFC Commissioners and Proxies
DATE: May 11, 2017
SUBJECT: ASMFC Commissioner Survey Results

The following is a summary of the 2016 ASMFC Commissioner Survey which includes responses from 26 Commissioners or Proxies. For each question, the average score by year is presented. The responses range from 1 through 10. The higher the average, the more positive the response from the Commissioners.

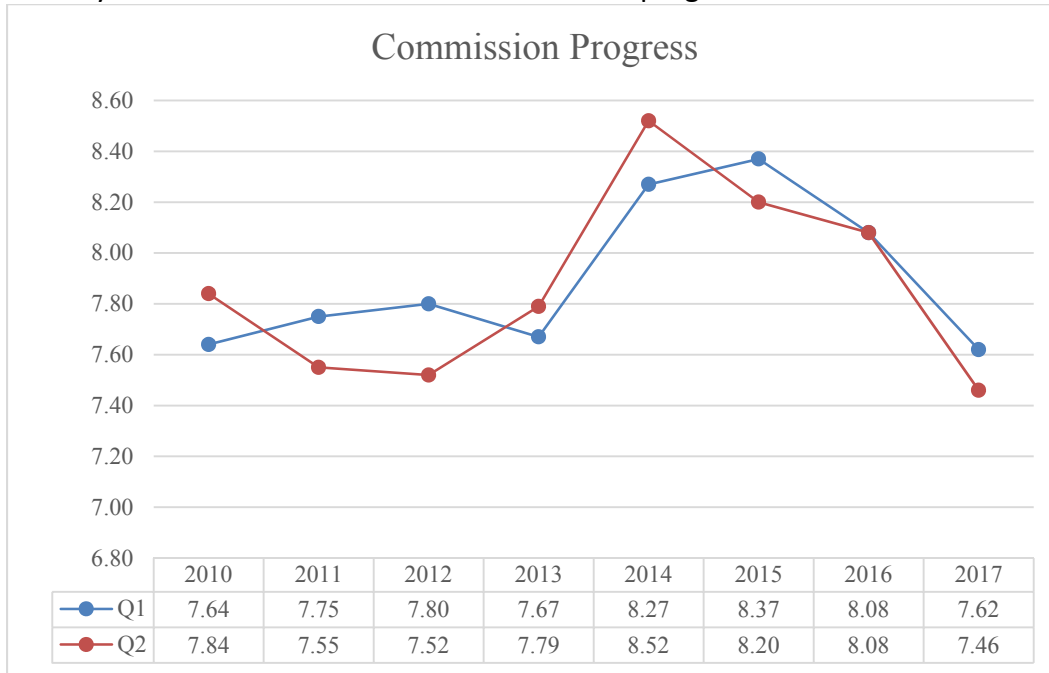
The data is presented in graph form to allow for comparison between years. The 2010 results were based on a response ranging from 1 through 5, so the value was doubled for comparison to future responses. Questions 7, 8, 14 and 15 were new to the 2015 survey, as the survey was simplified to increase participation.

Questions 16-20 prompted respondents for open-ended responses. Many of the comments fell into three broad categories: impacts of climate change; scarcity of fiscal resources resulting in data deficiencies; and looking out for individual state interests over the coast as a whole. Socioeconomic factors and analyses were also a recurring theme throughout. Respondents listed ISFMP and Science support documents; Fisheries Focus, travel logistics; and www.asmfc.org as some of the Commission's most useful products.

Respondents would like more simplified outreach materials for stakeholders; better use of meeting space; fewer possible choices on the Commissioner Survey; and continued development of the risk in management policy. Additionally, some respondents recommended shorter meeting week agendas; various improvements to MRIP; prioritizing the stock assessment schedule; and more Commission involvement in habitat projects. A complete list of all responses to questions 16-20 is available beginning on page 4.

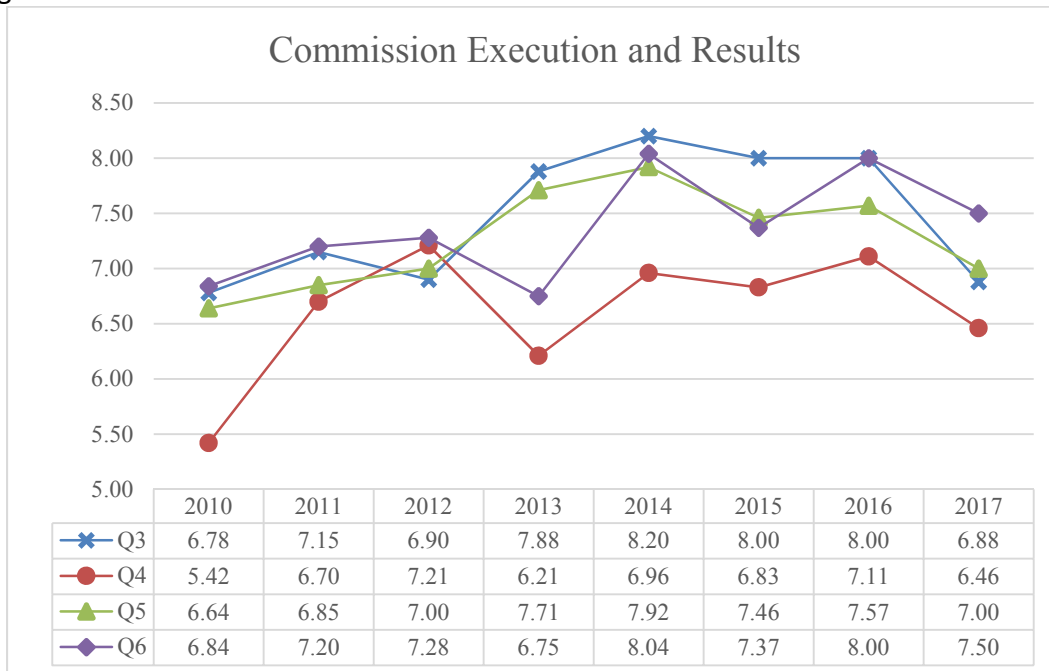
Commission Progress

1. How comfortable are you that the Commission has a clear and achievable plan to reach the Vision (Sustainably managing Atlantic Coastal Fisheries)?
2. How confident are you that the Commission’s actions reflect progress toward its Vision?



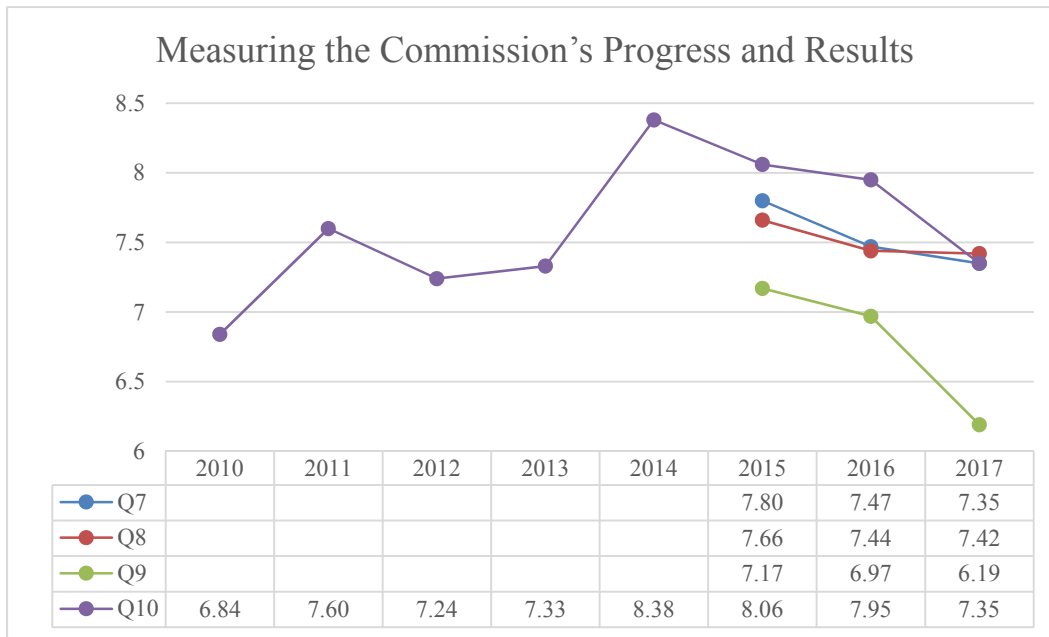
Commission Execution and Results

3. How satisfied are you with the cooperation between Commissioners to achieve the Commission's Vision?
4. How satisfied are you that the Commission has an appropriate level of cooperation with federal partners?
5. How satisfied are you with the Commission's working relationship with our constituent partners (commercial, recreational, and environmental)?
6. How satisfied are you with the Commission's effort and success in securing adequate fiscal resources to support management and science needs?



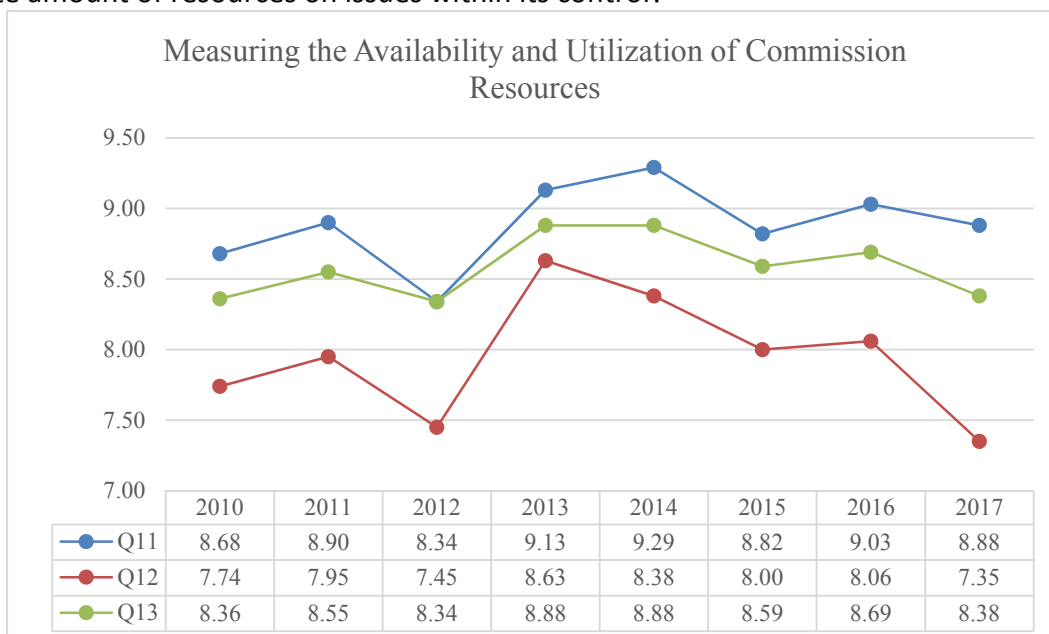
Measuring the Commission's Progress and Results

7. One of the metrics the Commission uses to measure progress is tracking the number of stocks where overfishing is no longer occurring. Is this a clear metric to measure progress?
8. How satisfied are you with the Commission's progress to end overfishing?
9. Are you satisfied with the Commission's ability to manage rebuilt stocks?
10. How satisfied are you with the Commission's efforts to engage with state legislators and members of Congress?



Measuring the Availability and Utilization of Commission Resources

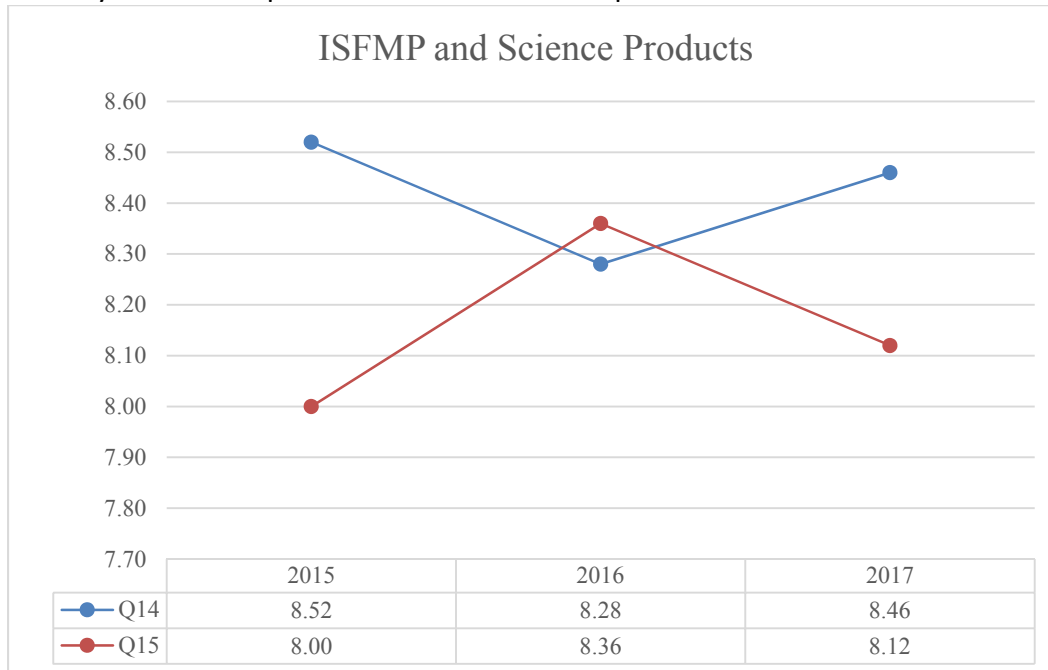
11. How satisfied are you that the Commission efficiently and effectively utilizes available fiscal and human resources?
12. How comfortable are you with the Commission's performance in reacting to new information and adapting accordingly to achieve Commission Goals?
13. The Commission has a limited scope of authority. How comfortable are you that the Commission spends the appropriate amount of resources on issues within its control?



Commission Products

14. How satisfied are you with the products of the ISFMP Department?

15. How satisfied are you with the products of the Science Department?



Discussion Questions

16. What is the single biggest obstacle to the Commission's success?

- There seems to be less concern for the biological needs of the stocks and more concern, among the states, with economic gains from the stocks than in the past decade.
- Allowing or facilitating commercial interests by not holding to a FMP until the next scheduled update. As soon as a fishery shows any sign of improvement the commercial interests immediately want amendments and motions to harvest a greater portion of the stock.
- Inability to reasonably adjust TACs and State Allocations
- State agency positions driven by state politics; environmental factors.
- Climate change and the lack of faith in the science by some to help guide their management decisions.
- Climate change
- Moving/changing biomass due to climate and environmental changes
- Unaccounted environmental variables are our biggest obstacles.
- Rapidly changing environmental conditions
- Understanding factors, other than fishing that affect stocks.
- The Commission can only control fishing, yet our fish stocks are under growing environmental stress from climate change and the huge human population growth in the ASMFC states.
- Factors outside Commission control
- Obstacles outside of our purview, habitat degradation as well as changing ocean dynamics, e.g. Temperature
- Lack of reliable data
- Funding for assessments
- Reliability and timeliness of data (MRIP), stakeholder cooperation and understanding between regions

- Two obstacles running neck-and-neck for first place: MRIP uncertainties and the binding of ASMFC to federal law and national standard guidelines drastically reducing ASMFC flexibility and the influence of individual state perspectives. ASMFC state agency representatives tend to be Council members first and foremost reflecting federal requirements rather than advocates for responsible and defensible state positions reflecting a balancing of constituents' concerns and resource needs (e.g., reduce or prevent overfishing as best that can be defined).
- Management measures need to be measurable and achievable. Too often we do things that look good on paper but don't meet the necessary conservation requirements.
- Balancing competing interests
- Reliable science is many times inconsistent and questionable.
- The lack of data and funding is a common theme for most species, so the inability to conduct more frequent benchmark assessments is a problem
- Interstate and regional parochialism that has become a detriment to achieving success and fairness.
- What is the "base line" to compare current stock with stock at historic periods? If stock is not being overfished, then what is keeping it from rebounding fully to historic levels? Perhaps a change in the habitat itself might explain this mystery.
- Data and Management lagging behind actual field conditions

17. What are the most useful products the Commission produces for you?

- The staff that are always willing to discuss issues with the state Commissioners.
- Information on the webpage and outstanding documents ASMFC staff produce for us to make management decisions at each meeting.
- Annual reports, staff analyses and reports, regular news clippings sent to Commissioners from ASMFC staff.
- Travel help and accounting
- Plan reviews with historical accounts of past actions and rationale for those decisions. Stock assessments with heavy emphasis on state scientist involvement especially with lead roles
- FMP addendum and amendments
- Management plans
- Meeting Summaries
- FMP reviews -- great snapshot of history, science, management and fishery; followed by Stock Status Reports
- Not a product - it's the staff that reaches out and is proactive on issues important to states
- Fisheries Focus, stock assessment overviews
- The Guiding documents provided on the website have been extremely helpful throughout the years
- The Commission continues to produce exemplary science products by way of stock assessments and support to stock assessments. Additionally, the technical training program is another product that has produced great benefits. Finally, financial support to administer Commission directives and support for beneficial research and pilot programs in states has been enormously valuable. Sorry, one more, the Commission's support in contract staffing in the states has been a huge benefit, and helps us better achieve the mission of both the Commission and the states.
- Professional dedicated staff
- FMPs
- Most everything from meeting materials to news clippings to amendments and addendum.
- Managers, stakeholders and scientists have the ability to discuss and communicate directly and share information

- Briefing materials
- The management plans and addendums clearly explain sometimes difficult management concepts and the rationale for management action to the public. The ISFMP staff do a great job of presenting the same materials at the public hearings. The web site is easy to navigate and has a wealth of information.
- Board Meeting briefing materials, clearly written Amendment and addendums

18. What additional products could the Commission create to make your job easier?

- Perhaps there can be other forms of outreach and outreach information about pending issues that could be provided to the states, so that the states could provide its stakeholders with germane, accurate information on issues of concern. Participation by stakeholders is way down, as compared to 10 or 15 years ago, for the most part, as a result of the electronic age, but it is ever more important that these stakeholders gain more information on issues before the critical decisions are made.
- Finding ways to provide simplified graphic depictions of the status of stocks and harvest quotas, allocation and milestones. Most of the information is presented in very detailed table formats. These detailed tables can remain because they are important for the record and future reference but perhaps more information can also be summarized into easier to read and explain formats for the regulated public and conservation groups. Once Commissioners return home from meetings they need to be able to explain what has transpired often to audiences who need it all boiled down to the simplest parts.
- Definitive sample size amounts in terms of how, where and when data is collected. How large a sample, how often collected, did the sampling schedule meet the correct time of year for this data collection?
- Better and far more accurate Technical Committee projections as to whether state-proposed rules (e.g., recreational) will achieve required reductions in catch or harvest with high degree of confidence.
- Don't have anything that jumps out at me, just continuing the current services and products is great.
- Meeting weeks in the Florida during the winter
- A way to make meeting setup more intimate in that it's difficult to discover who's speaking or sitting in on the meeting. A more reliable and effective sound system.
- I would be in favor of ASMFC creating an ongoing status report (similar to the Chesapeake Bay Foundation "state of the Bay") so that non-scientific people could easily understand the current stock and what factors are keeping the stock from improving.
- Current products work well for me
- A Commissioner Survey that has fewer possible choices between 'Satisfied' and 'Unsatisfied'. I filled out the survey last year and, although I think my answers this year were meant to be similar to last year (good incremental progress), I may have ended up going lower. Maybe a one or two page summary of how socioeconomic factors are taken into account during the management process.

19. What issue(s) should the Commission focus more attention/time on?

- In general, the amount of agenda items could be lessened. There is definitely a 'race against the clock' at most meetings because the agendas are overloaded. Staff presentations are often in a 'ratta-tat-tat' fashion to accommodate the overload.
- How to adapt the Commission's management to the changes in marine resources taking place as a result of climate change.
- Development of accurate and affordable recreational catch and use sampling methods. The problems with MRIP seem to cause the most contention among all users groups. A consensus lack of confidence in recreational harvest data seems to be the most problematic issue.

- Every State has needs not being met. Each certainly have their priority order in weighted issues. These larger concerns for each State being recognized and worked through would relieve tensions and would make the Commission a more efficient functioning body.
- Cooperation between Commissioners, there remains too much "what's in it for my state" with votes being taken en bloc to ensure the desired outcome for an individual's state.
- Issues of equity and fairness between states to promote true cooperative management with minority positions not being rejected simply for the perceived good of the majority, especially when the majority view is self-serving at the expense of the minority. More work needs to be done on freeing ourselves from single-point MRIP estimates for determining how much recreational harvest should be permitted.
- Need to figure out a better way to partner with the Council on jointly managed species. Current process is very cumbersome due to the different rules and number of individuals involved.
- Securing funding to support the mandated monitoring under the Commission's species management plan. Close the gap between available funding and unfunded mandates
- Prioritize species. Is a stock assessment on spot and croaker as important as annual updates on species such as lobster, striped bass, and flounder?
- Definitely appreciate the efforts of the Risk Management workgroup -- their products will be helpful in ensuring consistent approaches among species
- Technical Committee training. We tend to assign new folks to the TCs without them really knowing what to expect. Again the Guiding Docs help here.
- At the risk of letting you know exactly who took this survey, continuing to better account for risk in management decisions is critical and will better help us to avoid some of the trickier interstate management issues we are currently experiencing. Additionally, working on ways to incorporate MSE and/or MSE elements in to management processes will also help in both our internal processes (meaning internal to the Commission) and in our processes with external agencies (will give better and easier quantification of decisions so, for instance, NOAA is able to enact their decisions quicker).
- Climate change
- Habitat improvement projects are welcome and interesting. I wish that ASMFC could get involved in oyster recovery projects (e.g. Chesapeake Bay)
- Cooperation with Councils
- Not to minimize the complexity of estimating economic impacts of management decisions, but there should be a way to standardize a method for accounting for these costs. This would increase the credibility of our decisions.
- Quota allocations

20. Additional comments?

- Concerning joint plans with the Councils wherein the ASMFC is viewed as a secondary partner owing to the MSFCMA, it would be good for the ASMFC to press the Councils to revise their rulemaking celerity!
- Put less items on the agenda for each meeting day. It is rare that the meeting day ends on time. Increasingly, meetings have been running 1-2 hours over the posted end times. Poor decisions are often made late in the day when meetings have run too long. Commissioners need to know that schedules will be adhered to. Committee chairs need to provide adequate comment but then cut off the discussion based on the predetermined agenda time slot. A few Commissioners speak disproportionately and this results in time overruns. Perhaps the Commission can agree upon an approach that all chairs will follow for time and meeting management. What is done very well: the proper use of motions and procedures to ensure fairness, accountability and defensibility of legally

binding decisions is impressive. If chairs can ensure that process takes place and stays on time, all the better. The ASMFC administrative staff and technical staff are top notch and deserve much credit for assembling tedious data and materials into presentations and shepherding the various species committees.

- Slighted data provided, does not serve the Commission's membership as a whole. This should be recognized in order to serve the body's needs. Example: socio- economic data sampling had excluded many State's concerns and were considered to be too insignificant in many cases during collection. If the State believes it lies in a *de minimis* status in this regard then the State should decide if it is to be left out of the collection.
- Despite the best efforts of ASMFC's excellent staff, important data for critical management decisions very often are too far behind leading to delayed decisions on allocation and catch limits. Goal 1 about "fairly allocating coastal resources" cannot be achieved when states' measures are inadequate to control harvest, e.g., NY having taken 88% of the 2016 RHL in 2016.
- Need to do a better job of classifying when stocks are depleted due to environmental conditions. Stocks like SNE lobster, winter flounder, shrimp, and weakfish may never be rebuilt due to environmental changes and we need to effectively communicate that fact to the industry and our funding sources.
- Some of the answers I gave in the multiple choice section are as low as they are not because of anything the Commission is doing but rather is because many of these things are at least partially if not totally outside of the Commissions control. Just wanted to note that.
- The ASMFC staff were very impressive once again in 2016. From Director Beal to the Plan Coordinators to the ACCSP Team to the Support Staff, ASMFC, it is a pleasure to work with ASMFC. The APAIS transition could not have gone more smoothly in our state, so thank you for another great year.

ASMFC Standard Operating Procedures for Meetings

February 1, 2017

As established by the Interstate Fisheries Management Program Charter, the Atlantic States Marine Fisheries Commission (Commission) generally uses Roberts Rules of Order to conduct its business. There are some deviations from Roberts Rules adopted by the Commission. The following operating procedures are provided to make Commission meetings more effective and efficient.

Required Elements

The following voting and quorum provisions are established in the Commission guiding documents and are not subject to the discretion or interpretation by the meeting chair.

Quorum – The following quorum provisions are included in the Commission guiding documents. These provisions are not subject to the meeting chair’s discretion.

- The presence of Commissioners representing a majority of the state members (>50%) constitute a quorum at a meeting of the Commission.
- Any state shall be recorded as present when represented by one or more of its Commissioners.
- A quorum for any Commission group shall be a majority of the members of such body, provided that any such body may petition the Executive Committee in advance for approval of an alternative quorum procedure.

Voting – The following voting provisions are included in the Commission guiding documents. These provisions are not subject to the meeting chair’s discretion.

- The Commission’s Business Session, and management boards and sections shall be by state (or by jurisdiction or federal agency) with one vote per state. A state’s vote shall be determined by the majority of that state’s delegation of Commissioners who are present. Based on the number of delegates present, votes may be cast in favor, in opposition, in abstention, or null. A null vote occurs when only two state delegates are present and they do not agree on a position. A null vote can also occur if three state delegates are present and one delegate abstains from participating in the state caucus and the other two delegate do not agree on a position.
- No person may, by proxy, vote more than once on any issue.
- Any Commissioner or Commissioner Proxy or duly authorized representative of a jurisdiction or agency that is a member of a management board/section may make or second any motion; provided the maker of the motion and second (when necessary) must each come from a different state, jurisdiction, or agency.
- Any meeting-specific proxy appointed by a Legislative or Governors’ Appointee Commissioner may not vote on a final action being considered by a management board/section. Meeting-specific proxies may vote on preliminary decisions such as issues to be included in a public hearing draft or approval of public information documents.
- A final action is defined as: fishery specifications (including but not limited to quotas, trip limits, possession limits, size limits, seasons, area closures, gear requirements), allocation, final approval of FMPs/amendments/addenda, emergency actions, conservation equivalency plans,

- and non-compliance recommendations. A meeting-specific proxy may participate in the deliberations of the meeting, including making and seconding motions.
- The roll must be called for all final actions unless there is no objection to the motion.
- A two-thirds majority, which is required for an emergency action, extending a management action, or amending/rescinding a final action, is defined by the entire voting membership. However, federal agency abstentions do not count when determining the total number of votes.

Discretionary Elements

The following process recommendations are meeting best management practices for use by a meeting chair to effectively and efficiently run Commission meetings.

Process – The meeting chair has the discretion to manage the meeting conduct and application of the following best management practices.

- All board members should have the opportunity to speak once prior to anyone speaking a second time.
- An individual may not be recognized to speak on a motion more than two times during a single board meeting.
- If the chair believes there may not be opposition to the motion, he/she will seek board consent of the action by asking “If there is no objection, this item will be adopted.” After pausing for any objections, the chair states “As there are no objections, this item is adopted unanimously.” It is not necessary to ask for a show of hands.
- If the chair determines too much time is being consumed by speakers, he/she can set a time limit on such speeches.
- The meeting chair can use either of the following options for “one in favor/one against”:

Options for use of “one in favor/one against”:

Option 1: At any time in the meeting based on concern regarding limited time availability to conduct the full business of the board/section or in cases when extensive debate on an issue has occurred, the chair can limit debate to one in favor/one against.

Option 2: After all members have had the opportunity to speak on a motion twice, the chair will limit debate to one in favor/one against. If there is no one left to speak in favor/against the chair will call the vote on the motion.



Atlantic States Marine Fisheries Commission

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MEMORANDUM

TO: ISFMP Policy Board
FROM: Assessment Science Committee
DATE: April 24th 2017
RE: Stock assessment schedule updates

At its April 2017 conference call, the Assessment Science Committee (ASC) met to discuss various issues and receive presentations on several topics. The ASC had a number of recommendations to present to the ISFMP Policy Board regarding the ASMFC Stock Assessment Peer Review Schedule.

1. Following the request of the Horseshoe Crab Management Board, a benchmark assessment was added to the schedule in 2018.
2. SAW-SARC reviews were added to the schedule for Atlantic herring in 2018 and the 2019 summer flounder assessment was changed from an update to a benchmark at the Fall 2016 NRCC meeting, with the potential to move it forward to 2018.
3. The benchmark assessment for Northern shrimp was moved back to spring 2018 to accommodate a calibration study for the State-Federal (ASMFC) Summer Survey. A necessary equipment change on the Summer Survey requires these side-by-side calibration tows.
4. Per the request of the South Atlantic Board, a cobia SEDAR review was added to the schedule in 2019.
5. The ASC also discussed the implications of the MRIP Coastal Household Telephone Survey transition to the Fishing Effort Survey. Following calibration model peer review, the re-estimation of historical catch and effort could lead to changes to stock status or quotas that may require management action. The ASC divided ASMFC-managed species into anticipated levels of impact based on the amount of recreational harvest. For now, since most of the potential “high” impact species, including striped bass and summer flounder, are already on the stock assessment schedule for a benchmark trigger in the near future, the ASC decided to leave the assessment schedule as is. Once the calibrated numbers are released, the ASC and TCs can reevaluate the schedule and timing based on the difference between the calibrated numbers and the previous numbers. Jointly or cooperatively managed species are being updated on the Federal schedule.
6. The ASC updates the Assessment Scientist Workload Scoresheet on an annual basis as a means to calculate the workloads of the TC and SAS members along the coast. Historically, this scoresheet has only included benchmark stock assessments and more recently assessment updates. This overlooks participation and assignments on other science committees as well as tasks outside of a stock assessment and in-state duties. The ASC is working with Science Staff to identify a more representative way to capture scientist workload which could help with future task prioritization and will bring this improved scoresheet to the ISFMP Policy Board at Annual Meeting.

Long-Term Benchmark Assessment and Peer Review Schedule (Updated April 2017)

| Species | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | | 2017 | 2018 | 2019 | 2020 |
|-----------------------|-------------|----------|-----------|----------|---------|-------------|-------------|------------|--|--------|-------------|--------|--------|
| American Eel | | | | ASMFC | | | | | | Update | | | |
| American Shad | | | | | | | | | | | Update | | |
| American Lobster | ASMFC | | | | | | ASMFC | | | | | | x |
| Atlantic Croaker | | SEDAR 20 | | | | | | | | ASMFC | | | |
| Atlantic Menhaden | | SEDAR | | Update | | SEDAR | | | | Update | | SEDAR | |
| Atlantic Sea Herring | Update | | | SARC 54 | | | Update | | | | SARC-Spring | | |
| Atlantic Striped Bass | Update | | Update | | SARC 57 | | Update | Update | | | SARC-Fall | | |
| Atlantic Sturgeon | | | | | | | | | | ASMFC | | | |
| Black Drum | | | | | | ASMFC | | | | | | x | |
| Black Sea Bass | Update | Update | SARC-Fall | Update | Update | Update | Update | SARC- Fall | | Update | Update | Update | Update |
| Bluefish | Update | Update | Update | Update | Update | Update | SARC-Spring | Update | | Update | Update | Update | x |
| Cobia | | | | | | | | | | | | SEDAR | |
| Horseshoe Crab | ASMFC | | | | Update | | | | | | ASMFC | | |
| Menhaden ERPs | Update | | | Update | | Update | | | | | | SEDAR | |
| Northern Shrimp | Update | Update | Update | Update | Update | SARC-Spring | Update | Update | | Update | ASMFC | Update | Update |
| Red Drum | SEDAR | | | | | | SEDAR | | | | | | x |
| River Herring | | | | ASMFC | | | | | | Update | | | |
| Scup | Update | Update | Update | Update | Update | Update | SARC-Spring | Update | | Update | Update | Update | x |
| Spanish Mackerel | | | | SEDAR 28 | | | | | | | | | |
| Spiny Dogfish | Update | TRAC | Update | Update | Update | Update | Update | Update | | Update | Update | Update | Update |
| Large Coastal Sharks | | | SEDAR | | | | | SEDAR | | | | | |
| Small Coastal Sharks | | | SEDAR | | SEDAR | | | | | | | | |
| Spot | | | | | | | | | | ASMFC | | | |
| Spotted Seatrout | VA/NC | FL | | | | | VA/NC | FL | | | | | |
| Summer Flounder | Update | Update | Update | Update | SARC 57 | Update | Update | Update | | Update | Update | SARC | Update |
| Tautog | | | Update | | | ASMFC | | Update | | | | x | |
| Weakfish | SARC-Spring | | | | | | | ASMFC | | | Update | | |
| Winter Flounder | | | SARC 52 | | | Update | Update | | | Update | | | |

SA Staff
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2013 marks transitioning to the new NE Stock Assessment Process

Please note that all species scheduled for review must be prioritized by management boards and Policy Board.

Additional Notes:

- Black Sea Bass: 2016 benchmark to include new model development
- Large Coastal Sharks: 2016 Update dusky, 2017 Standard sandbar, 2018 Update blacktip
- Small Coastal Sharks: SEDAR 34-HMS bonnethead and Atlantic sharpnose 2013
- Spot: PRT annually reviews
- Spotted Seatrout: States conducting individual assessments
- Winter Flounder: Operational assessment Sept 2017 with 20 groundfish stocks

- SEDAR External Review
- ASMFC External Review
- Fall SARC Review
- Spring SARC Review
- x = 5 year trigger date or potential review
- Completed

Italics = under consideration, but not officially scheduled

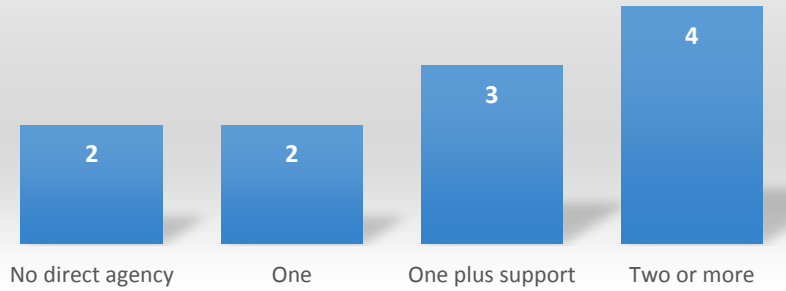
- 1 =active member of SASC
- 2 =co-lead for assessment
- 3 =lead for stock or stock unit/DPS
- =combined score for multiple updates

| | | 2019 | | | | | |
|-------------------------------------|---------------------|------------------|-----------------|---------------------------|------------|--------|---------|
| | | Summer flounder* | Menhaden (ERPs) | Menhaden (Single-species) | Black drum | Tautog | Updates |
| | Scientist | | | | | | |
| | Kristen Anstead | | 1 | | | | |
| | Jason McNamee | 1 | 3 | 1 | | 1 | |
| | Katie Drew | | 1 | | | 2 | |
| | Laura Lee | | | | | | |
| | Jeff Kipp | | | | 3 | | |
| | Jim Uphoff | | 3 | | | | |
| | Amy Schueller | | 1 | 3 | | | |
| 2017 | | | | | | | |
| Benchmarks | | | | | | | |
| Sturgeon | Mark Terceiro | 3 | | | | | 1 |
| Spot | Alexei Sharov | | 1 | 1 | | 1 | |
| Croaker | Matt Cieri | | 1 | 1 | | | |
| Updates | | | | | | | |
| American eel | Jeff Brust | 1 | 1 | | | 1 | |
| River herring | Chris McDonough | | | | 1 | | 1 |
| Atlantic menhaden | Michael Celestino | | 1 | | | | |
| | Micah Dean | | 1 | 1 | | | |
| 2018 | | | | | | | |
| Benchmarks | | | | | | | |
| Atlantic striped bass (SARC-F) | Gary Nelson | | | | | | 1 |
| Horseshoe crab | John Sweka | | | | | | 1 |
| Spiny dogfish (SARC-S) | Gary Shepherd | | | | | | 1 |
| Atlantic herring | Maggie Hunter | | | | | | 1 |
| Northern shrimp | Burton Shank | | | | | | 1 |
| Black sea bass (SARC-F)? | Kim McKown | | | | | | 1 |
| Bluefish (SARC-F)? | Tracy Pugh | | | | | | 1 |
| Scup (SARC-S)? | Kierstin Curti | | | | | | 1 |
| Updates | | | | | | | |
| American shad | Kathleen Reardon | | | | | | 1 |
| Weakfish | David Chagaris | | 1 | | | | |
| | Howard Townsend | | 1 | | | | |
| | Kelly Whitmore | | | | | | 1 |
| | Jared Flowers | | | | | | |
| 2019 | | | | | | | |
| Benchmarks | | | | | | | |
| Atlantic menhaden (ERPs) | Katherine Sosebee | | | | | 1 | |
| Atlantic menhaden (Single-species) | Mike Bednarski | | | | | | |
| Black drum | Dawn Franco | | | | | | |
| Summer flounder (SARC) | Harry Rickabaugh | | | | | | |
| Cobia | Joseph Munyandorero | | | | | | |
| Tautog | Mary Fabrizio | | | | | | |
| | Michael Bailey | | | | 1 | 1 | |
| | Scott Newlin | | | | | | |
| Yearly updates | | | | | | | |
| Bluefish | Edward Hale | | | | | | |
| Northern shrimp | Ed Hale | | | | | | |
| Scup | Rob Latour | | | 1 | | | |
| Spiny dogfish | Kurt Gottschall | | | | | | |
| Spot (TLA) | Anne Richards | | | | | | |
| Croaker (TLA) | Josh Newhard | | | | | | |
| American lobster (Stock Indicators) | Greg Wojick | 1 | | | | | |
| Summer flounder | Chris Legault | 1 | | | | | |
| | Steve Doctor | 1 | | | | | |
| | John Maniscalco | 1 | | | | | |
| | Joe Cimino | | | | 1 | | |
| | Yan Jiao | | | | | | |
| | Chris Bonzek | 1 | | | | | |

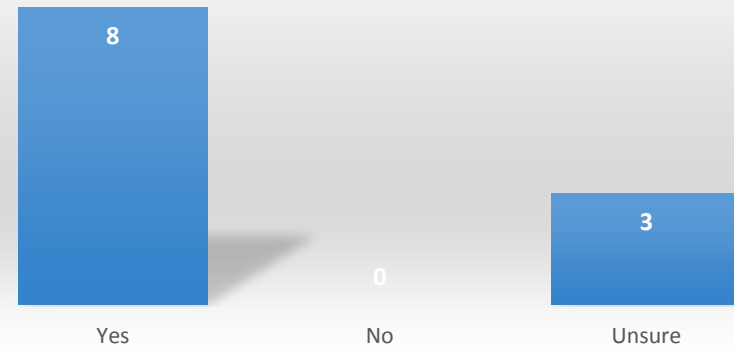
*=Jointly managed with Councils handling most of assessment workload

ASMFC SAV Policy Questionnaire Responses: State Entities

Number of Agencies Responsible for SAV Management



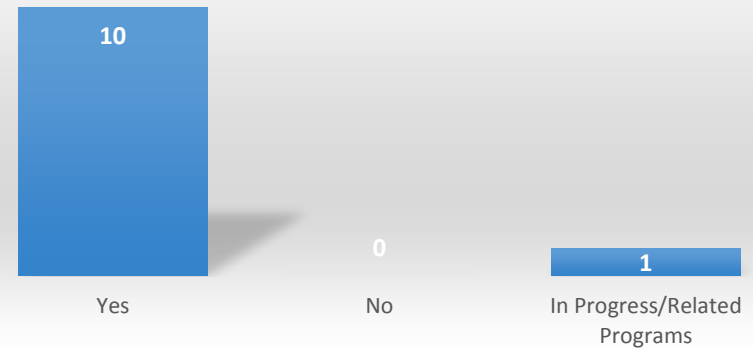
ASMFC SAV Policy Provided to Managing Agency?



Implemented an SAV Resource Assessment and Monitoring Strategy?

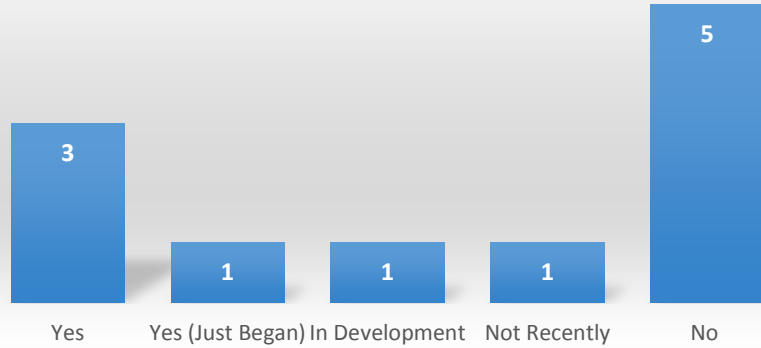


Implemented/Developed Programs to Limit Impacts to SAV?

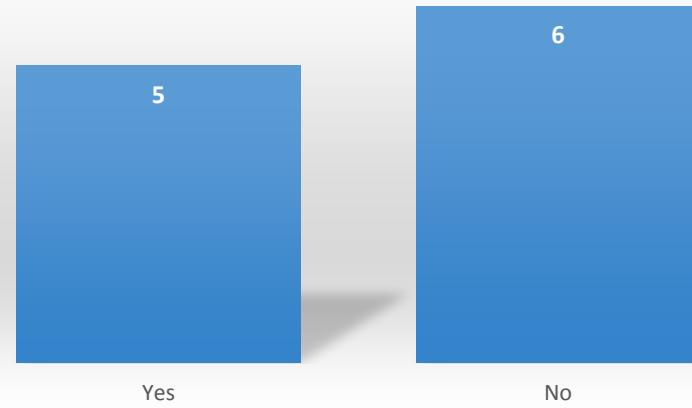


ASMFC SAV Policy Questionnaire Responses: State Entities

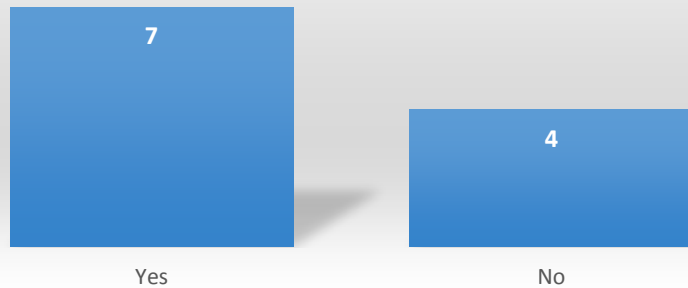
Reviewed the Effectiveness of These Programs?



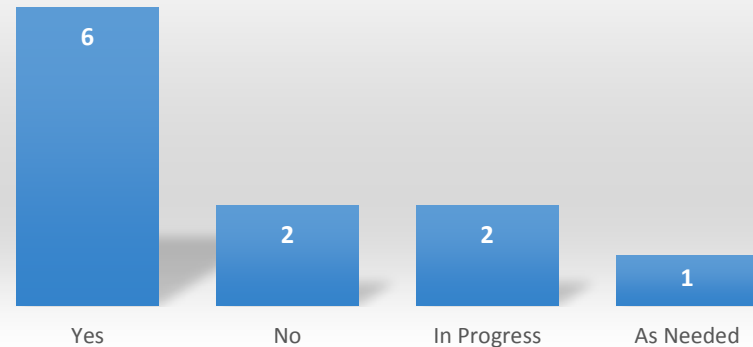
Set Restoration Goals?



Identified Reasons for SAV Loss/Identified Need For Improvement?

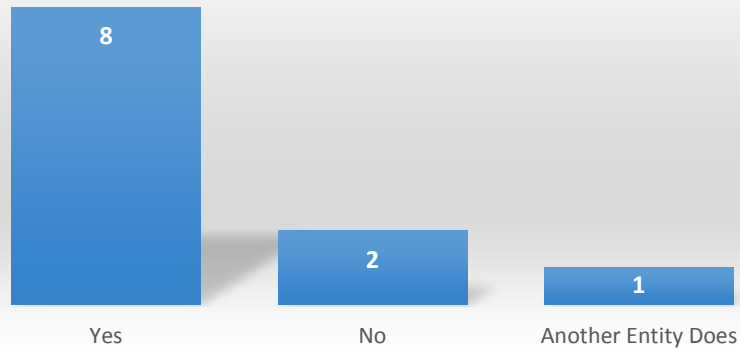


Identified Areas for Protection/Restoration?

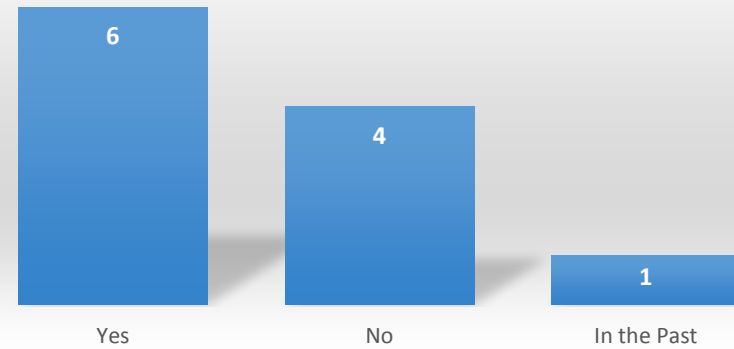


ASMFC SAV Policy Questionnaire Responses: State Entities

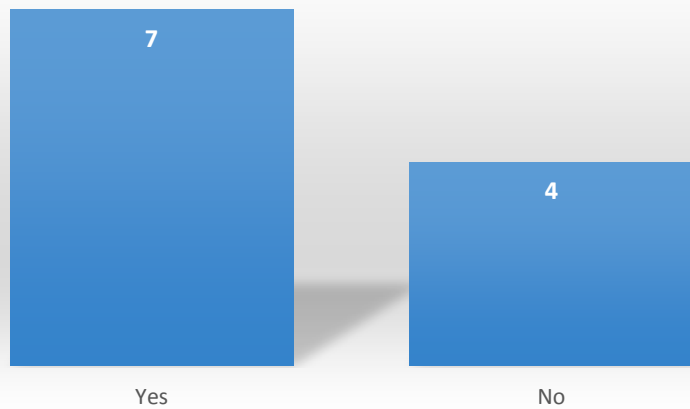
Included SAV in Aquatic Education Programs?



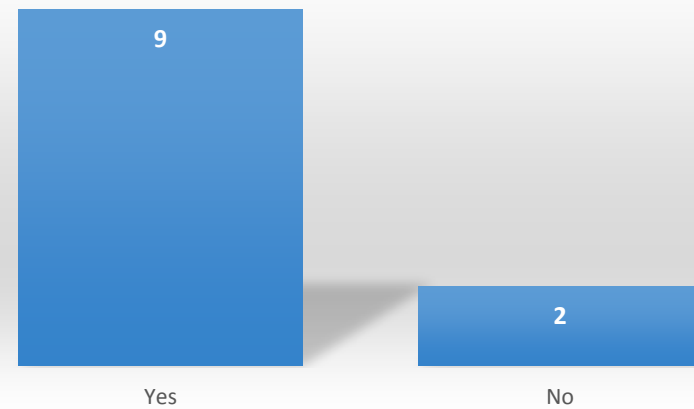
Promoted the Involvement of Citizens Groups?



Supported SAV Research?

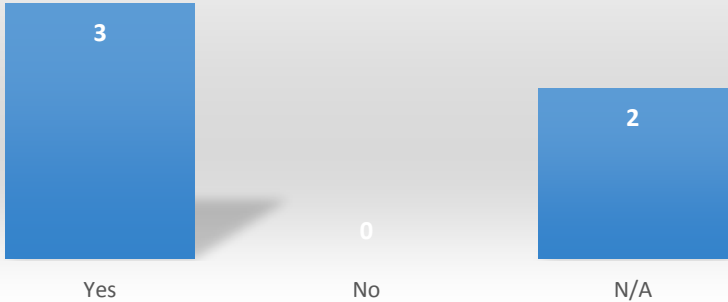


Follow Specific BMPs?

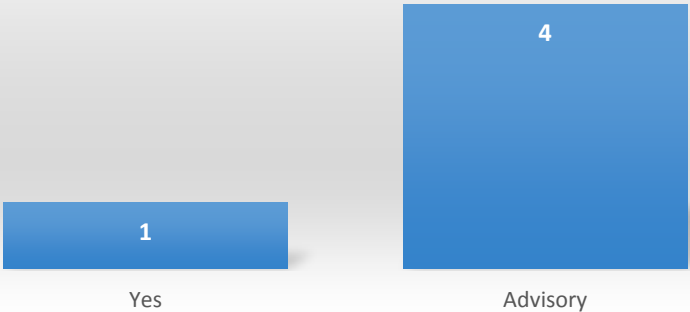


ASMFC SAV Policy Questionnaire Responses: Federal Entities

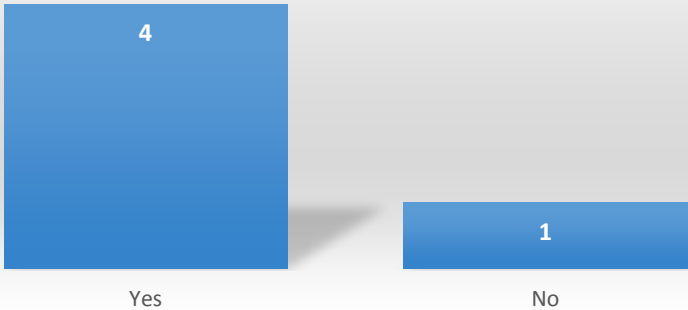
ASMFC SAV Policy Provided to Your Agency?



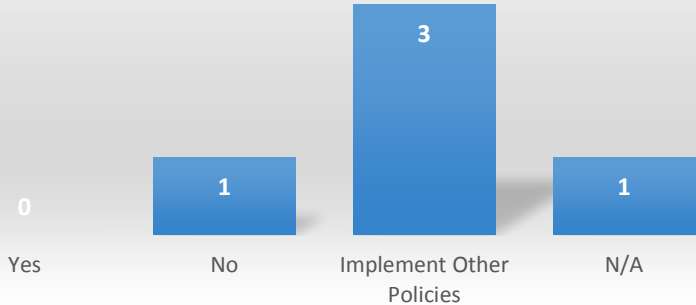
Agency Have Regulatory Authority Encompassing SAV?



Developed Technical Guidance, Standards, or Promote BMPs?



Agency Adopt/Implement This Policy?



Atlantic States Marine Fisheries Commission

Business Session

*May 11, 2017
10:30 – 11:00 a.m.
Alexandria, Virginia*

Draft Agenda

The times listed are approximate; the order in which these items will be taken is subject to change; other items may be added as necessary.

- | | |
|---|------------|
| 1. Welcome/Introductions (<i>D. Grout</i>) | 10:30 a.m. |
| 2. Board Consent | 10:35 a.m. |
| • Approval of Agenda | |
| • Approval of Proceedings from January 2017 | |
| 3. Public Comment | 10:45 a.m. |
| 4. Review Noncompliance Findings (if necessary) | 10:50 a.m. |
| 5. Other Business/Adjourn | 10:55 a.m. |

The meeting will be held at the Westin Alexandria 400 Courthouse Square Alexandria, VA; 703.253.8600

Vision: Sustainably Managing Atlantic Coastal Fisheries

Atlantic States Marine Fisheries Commission

South Atlantic State/Federal Fisheries Management Board

May 11, 2017
11:15 a.m. – 3:00 p.m.
Alexandria, Virginia

Draft Agenda

The times listed are approximate; the order in which these items will be taken is subject to change; other items may be added as necessary.

1. Welcome/Call to Order (*J. Estes*) 11:15 a.m.
2. Board Consent 11:15 a.m.
 - Approval of Agenda
 - Approval of Proceedings from February 2017
3. Public Comment 11:20 a.m.
4. 2017 Atlantic Croaker Benchmark Stock Assessment **Final Action** 11:30 a.m.
 - Presentation of Benchmark Stock Assessment Report (*C. McDonough*)
 - Presentation of Peer Review Panel Report (*P. Campfield*)
 - Consider Acceptance of Benchmark Stock Assessment and Peer Review Report for Management Use
 - Consider Management Response to Benchmark Stock Assessment and Peer Review Report (*J. Estes*)
5. Lunch 12:30 p.m.
6. 2017 Spot Benchmark Stock Assessment **Final Action** 1:00 p.m.
 - Presentation of Benchmark Assessment Report (*C. McDonough*)
 - Presentation of Peer Review Panel Report (*P. Campfield*)
 - Consider Acceptance of Benchmark Stock Assessment and Peer Review Report for Management Use
 - Consider Management Response to Benchmark Stock Assessment and Peer Review Report (*J. Estes*)
7. Progress Report on Cobia Draft Fishery Management Plan (*L. Daniel*) 2:00 p.m.
 - Provide Guidance to the Plan Development Team
8. Other Business/Adjourn 3:00 p.m.

The meeting will be held at the Westin Alexandria, 400 Courthouse Square, Alexandria, Virginia 22314; 703.253.8600

MEETING OVERVIEW

South Atlantic State/Federal Fisheries Management Board Meeting
Thursday, February 2, 2017
11:15 a.m. – 3:00 p.m.
Alexandria, Virginia

| | | |
|--|---|---|
| Chair: Jim Estes (FL) Assumed Chairmanship: 02/16 | Technical Committee Chairs: Red Drum: Ryan Jiorle (VA) Atlantic Croaker: Chris McDonough (SC) | Law Enforcement Committee Representative: Capt. Bob Lynn (NC) |
| Vice Chair: Pat Geer | Advisory Panel Chair: Tom Powers (VA) | Previous Board Meeting: February 2, 2017 |
| Voting Members: NJ, DE, MD, PRFC, VA, NC, SC, GA, FL, NMFS, USFWS, SAFMC (12 votes) | | |

2. Board Consent

- Approval of Agenda
- Approval of Proceedings from February 2, 2017

3. Public Comment – At the beginning of the meeting public comment will be taken on items not on the agenda. Individuals that wish to speak at this time must sign-in at the beginning of the meeting. For agenda items that have already gone out for public hearing and/or have had a public comment period that has closed, the Board Chair may determine that additional public comment will not provide additional information. In this circumstance the Chair will not allow additional public comment on an issue. For agenda items that the public has not had a chance to provide input, the Board Chair may allow limited opportunity for comment. The Board Chair has the discretion to limit the number of speakers and/or the length of each comment.

4. Atlantic Croaker Stock Assessment (11:30 a.m. – 12:30 p.m.) Final Action

Background

- The 2017 benchmark stock assessment was completed in February (**Supplemental Materials**)
- A peer review was held April 18-21 (**Supplemental Materials**)

Presentations

- C. McDonough will present the Stock Assessment Report (**Supplemental Materials**)
- P. Campfield will present the Peer Review Panel Report (**Supplemental Materials**)

Board actions for consideration at this meeting

- Consider acceptance of the Stock Assessment and Peer Review Report for management use.

5. Lunch

6. Spot Stock Assessment (1:00 – 2:00 p.m.) Final Action

Background

- The 2017 benchmark stock assessment was completed in February (**Supplemental Materials**)

- A peer review was held April 18-21 (**Supplemental Materials**)

Presentations

- C. McDonough will present the Stock Assessment Report (**Supplemental Materials**)
- P. Campfield will present the Peer Review Panel Report (**Supplemental Materials**)

Board actions for consideration at this meeting

- Consider acceptance of the Stock Assessment and Peer Review Report for management use.

7. Progress Report on Cobia Draft Fishery Management Plan (FMP) (2:00 – 3:00 p.m.)

Background

- The Plan Development Team (PDT) began constructing a Draft FMP for cobia to complement the federal FMP in February, 2017.
- The Board initiated a Working Group in February, 2017, that is investigating potential options for allocation.
- The PDT and Working Group seek guidance from the Board on data selection and usage issues that can impact options for the Draft FMP.
- It is expected that the Draft FMP will be completed and presented for Board approval for public comment in August, 2017.

Presentations

- L. Daniel will present an update on the development of the Draft FMP and topics requiring Board input (**Meeting Materials**)

8. Other Business/Adjourn

DRAFT PROCEEDINGS OF THE
ATLANTIC STATES MARINE FISHERIES COMMISSION
SOUTH ATLANTIC STATE/FEDERAL FISHERIES MANAGEMENT BOARD

The Westin Alexandria
Alexandria, Virginia
February 2, 2017

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 Advisory Panel Report 3

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Update on Spot and Atlantic Croaker Benchmark Stock Assessments..... 28

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Adjournment 29

INDEX OF MOTIONS

1. **Approval of Agenda** by Consent (Page 1).
2. **Approval of Proceedings of October 2016** by consent (Page 1).
3. **Move to add Ms. Deb Lambert to the Plan Development Team** (Page 20). Motion by Dr. McGovern; second by Dr. Laney. Motion passes without objection Motion passes unanimously (Page 20).
4. **Main Motion**
Motion to Postpone brought up and the conditions therein: Motion to postpone the approval of the stock assessment and peer review for management advice until the following tasks can be completed by the Technical Committee and Stock assessment Committee:
 - Evaluate if current biological reference point types and values are appropriate for red drum, given the species life history.
 - Investigate the feasibility of an F-based reference point for juvenile red drum.
 - Evaluate how red drum life history and fishery management measures affect the validity of age-based models.
 - Evaluate whether the South region continuity run of the statistical catch-at-age model can be made informative for management; and if yes, complete a continuity run.
 - Evaluate if a North region continuity run of the statistical catch at age model would be informative for management purposes; and if yes, complete a continuity run.
 - Evaluate tag return rates for each region and determine if tag return data should be incorporated into a new run of the SS3 model.

Motion made by Mr. Boyles and seconded by Ms. Fegley (Page 27).
5. **Motion to Substitute**
Move to substitute to accept the red drum stock assessment as presented today for management use (Page 27). Motion by Robert Boyles; second by Pat Geer. Motion carried and becomes the main motion (Page 27).
Main Motion
Move to accept the red drum stock assessment as presented today for management use. Motion carried (Page 32).
6. **Move to approve the 2016 Fishery Management Plan Review for Spot, and approve the de minimis status for Georgia** (Page 29). Motion by Rob O'Reilly; second by Pat Geer. Motion carried (Page 29).
7. **Motion to adjourn by Consent** (Page 29).

ATTENDANCE

BOARD MEMBERS

| | |
|--|--|
| John Clark, DE, proxy for R. Miller (GA) | Robert Boyles, SC (AA) |
| Rachel Dean, MD (GA) | Malcolm Rhodes, SC (GA) |
| Craig Pugh, MD, proxy for Rep. Carson (LA) | Patrick Geer, GA, proxy for Rep. Nimmer (LA) |
| Russ Allen, NJ, proxy for D. Chanda (AA) | Kathy Knowlton, GA, proxy for S. Woodward (AA) |
| Adam Nowalsky, NJ, proxy for Asm. Andrzejczak (LA) | Jim Estes, FL, proxy for J. McCawley (AA) |
| Lynn Fegley, MD, proxy for D. Blazer (AA) | Martin Gary, PRFC |
| Rob O'Reilly, VA, proxy for J. Bull (AA) | Wilson Laney, USFWS |
| David Bush, NC, proxy for Rep. Steinburg (LA) | John Carmichael, SAFMC |
| Michelle Duval, NC, proxy for B. Davis (AA) | |

(AA = Administrative Appointee; GA = Governor Appointee; LA = Legislative Appointee)

Ex-Officio Members

Angela Giuliano, Red Drum SAS Chair

Staff

| | |
|---------------|----------------|
| Toni Kerns | Mike Schmidtke |
| Robert Beal | Louis Daniel |
| Pat Campfield | Jeff Kipp |

Guests

| | |
|-----------------------|-----------------------------------|
| Lynn Fegley, MD DNR | Jeff Deem, VMRC |
| Jack McGovern, NOAA | Jonathan French, Falls Church, VA |
| Jack Travelstead, CCA | |

The South Atlantic State/Federal Management Board of the Atlantic States Marine Fisheries Commission convened in the Edison Ballroom of the Westin Hotel, Alexandria, Virginia, February 2, 2017, and was called to order at 1:19 o'clock p.m. by Chairman Jim Estes.

CALL TO ORDER

CHAIRMAN JIM ESTES: I would like to open up the South Atlantic State/Federal Fisheries Management Board. My name is Jim Estes; I'm the Administrative Proxy from the state of Florida, and I'll be facilitating this meeting today.

APPROVAL OF AGENDA

CHAIRMAN ESTES: You all should have received an agenda. Are there any suggested changes to the agenda? Seeing none; are there any objections to approving the agenda? Seeing none; the agenda is approved by consent.

APPROVAL OF PROCEEDINGS

CHAIRMAN ESTES: You also should have received proceedings from our October meeting. Are there any suggested edits or changes to those proceedings? Is there any objection to approving those proceedings? Seeing none; they are approved by consent.

PUBLIC COMMENT

CHAIRMAN ESTES: We don't have anyone right now signed up for public comment. Is there anybody in the audience that would like to make public comment, although there are not that many people out there?

Seeing none; we'll go on to Item 4. What we're going to do here is we're going to have, similar to what we did in the menhaden board meeting last night, although I hope it's not going to take near as long. We're going to talk a little bit about cobia and have a presentation by Dr. Daniel. Then we're going to go and try to give some advice to the Plan Development Team. Before we do that maybe we can talk about, we had a recent closure cobia fishery; and maybe

we could have Jack talk about that for just a minute.

RECENT CLOSURE OF COBIA FISHERY

DR. JACK MCGOVERN: As you know on January 24th, we closed federal waters to recreational harvest of cobia. The reason why we closed federal waters is last year the recreational annual catch limit of 630,000 pounds was exceeded. Landings were more than double the recreational ACL. We have an accountability measure that if the recreational ACL is exceeded then the length of the following fishing season is shortened; to achieve the annual catch target, which is 500,000 pounds.

Now I need to make it clear that state and federal landings count towards the ACL; and in this case most of the cobia landings occur in state waters, about 87 percent. Based on current state regulations, and there are a couple of states that don't have the same regulations as the federal regulations.

We expected that the total ACL for 2017, which is 620,000 pounds, would be met in just state waters alone. That meant that there is not enough quota left over for federal water. For that reason we closed harvest to recreational harvest of cobia in federal waters. Now if the states were to adopt more conservative management measures, we could reopen federal waters for cobia. That is a short explanation of why we closed recreational harvest in federal waters.

CHAIRMAN ESTES: Yes, Malcolm.

DR. MALCOLM RHODES: Just to follow up on that. If this year with the federal waters being closed Georgia, South Carolina, and further up north will be closed. Last year we had a June 24th closure in federal waters; and obviously those states didn't catch any more. But we still had 130 or 140 percent of the total allowable catch caught in the fourth wave, so July and August. If that were to occur, so that was all state waters, if we had that same scenario play

out this year, would we be faced with the same coastwide closure again next year?

CHAIRMAN ESTES: Yes sir, go ahead.

DR. McGOVERN: If we exceed the annual catch limit this year of 620,000 pounds in state and federal waters, the accountability measure would be triggered once again. There could be closure of federal waters; but it depends. It depends on what the state regulations are, and so that remains to be seen.

CHAIRMAN ESTES: I think that highlights the importance of what we're doing; at least what we're starting today maybe. I know that probably in the state of Georgia and the state of South Carolina, they don't have many fish caught in state waters; and so their fishery is going to be essentially closed, unless something else happens.

As we go through talking about cobia. I think we're going to do this in two steps. I think Dr. Daniel is going to talk about the public comment that we received, and then I think we're going to go through one by one the issues; so that we can provide some guidance to the PDT. When we do that I would like to do that without lots of parliamentary procedure.

I would like to probably get some consent on the things that we should add in there, so just be thinking about that. Also be thinking about the time. If we start going down a rabbit hole, I'm probably going to assign some workgroups, some work outside the meeting. With that Dr. Daniel, if you would like to start.

PUBLIC COMMENT SUMMARY OF THE DRAFT COBIA PUBLIC INFORMATION DOCUMENT

DR. LOUIS B. DANIEL: Hello South Atlantic Board. I am Louis Daniel; I am the Plan Coordinator for the cobia fishery management plan. What I would like to do is briefly go through the public comment summary that we received from a series of meetings and written comments received on the PID for cobia.

REVIEW PUBLIC COMMENT

DR. DANIEL: We held five public meetings from Virginia to Florida; two in North Carolina with about 60 participants that attended the meetings and 16 written comments. I do want to let you know that all of the written comments are contained in your briefing book; so that if you would like to review those at your leisure. I am not going to go over individual comments.

To try to summarize some of this and move through it as quickly as I can, two specific issues dominated concerns expressed related to the cobia management. The first issue was the reliability and representative nature of the MRIP landing estimates. This issue was brought up at virtually all of the public meetings; and was discussed at the Advisory Panel meeting as well.

The other primary issue was related to the genetics analysis used to distinguish between Gulf and Atlantic migratory group cobia. We can get into that in more detail if you would like, but that could be a lengthy discussion. Suffice it to say that the information currently being used in the South Atlantic Plan is considered best available. What I would like to do is go through the various issues that we received public comment on; and go through those. First on the nature of Complementary Management with the Council, the public meetings and written comments were essentially split on developing a complementary plan.

Those that were opposed were primarily concerned with the stock boundary, believing that Florida should be included; and the intent and purpose there being that it would result in a large quota for the entire east coast. That seemed to be the primary opposition to a complementary plan. They also were concerned that the ASMFC would have no ability to change the catch limits. That is dependent completely on the council process.

The supporters focused on providing states flexibility to manage their specific fisheries. The comments related to what federal management measures should be required were not provided. They may have been had this occurred before the public meetings; the closure. But for our meetings we didn't receive a lot of comment back on that issue.

States to be included in the management unit can be inferred by concerns expressed with the genetic data. As I said, the South Atlantic currently manages the Atlantic Migratory Group Cobia as the Georgia/Florida line to New York; and that seems to be based on the best available information, whereas those that don't concur with the current genetic analysis would like to see that management unit include the state of Florida.

Issue 2, Management Goals and Objectives; there were specific comments supporting long-term sustainability. Those in support of ASMFC management liked the flexibility that it provides the states; and comments supported a strategy to manage cobia as primarily a recreational fishery. But there was still strong interest in maintaining the commercial bycatch fishery as it exists.

There was also support for improving data collection. There seemed to be a lot of interest, particularly in the South Carolina meeting on all the data that's being collected; and a lot of interest and excitement about the tagging workshops and the tagging work that's being done, and the information that's being collected.

One clear theme was the long-term management regime, so that they don't have these annual changes in the fishery; especially in the for-hire charter sector, which this fishery is important to. These closures can have significant impacts on charters that have booked trips prior to a closure. Issue 3; Discuss Coastwide, Regional or State-by-State Management.

Again, most of the commenter's supported state-by-state allocation whether they supported an ASMFC plan or not. There was concern with the coastwide quota and the closure impacts; particularly those on the tail end of the migratory range. On Issue 4, the Recreational Management Tools, there was general support for size and bag limits.

There was a lot of discussion about a lot of different types of options, such as circle hooks, slot limits, prohibiting gaffs and spears and bang sticks. Making specific allowances for the pier fishery, those are issues that if you would like to develop those further we can do that. There was general interest in addressing catches north of Virginia through some sort of de minimis approach. There was a lot of discussion about this year's landings in Maryland. They don't seem to have been that high based on the landings information, but that did raise some red flags to the public. Commercial Management Tools, there were very few specific commercial comments. Most agreed to maintain the current bycatch allowance; and one specific suggestion from one commercial person was that they would like to see all the landings be reported in whole weight, so that there are not differences. Some are landed in whole weight, some are landed in gutted weight, and that creates an issue for them.

ADVISORY PANEL REPORT

DR. DANIEL: Our Multispecies Advisory Panel met; had a great meeting with that group. I want to go through and just go through the general consensus statements that they made; for your information. On Issue 1 they supported ASMFC development of a complementary FMP for cobia. These were all by consensus.

For Issue 2, they expressed specific need for a long-term management regime conservatively developed, so as to avoid and minimize annual mid-season changes or closures. They specifically support improved information gathering to reduce uncertainty associated with

current landing estimates; and impart more confidence in the assessment process.

They also recommend the development of specific biological sampling requirements in the plan. In Issue 3, they had no specific comments. They indicated they would like to have an opportunity to provide comments on specific measures as the plan is developed. Likewise in Issue 4 and 5, they were waiting. But they did want to indicate to the board that if you are thinking circle hooks, think offset circle hooks, as opposed to the non-offset circle hooks if you're going to go in that direction.

They also brought up a concern about informing stakeholders of the mercury issues that have arisen with larger cobia. Those were the general comments, the public comments received in written and oral form; as well as the Advisory Panel discussion. Real quickly I wanted to run through the current South Atlantic provisions; to give you a way to see where we are at the moment with the one fish recreational bag limit, a 36 inch size limit.

The commercial harvest is limited to two fish per person or six per vessel. As Jack indicated the federal waters closure effective January 24, 2017. Most of the states will be developing or are developing management measures to possibly reduce harvest of cobia this year when their fishery begins; typically for us sometime in March or April probably in the southern part of the state.

That is kind of where we are with that Mr. Chairman, overall public comment summary, mixed opinion on development of a complementary plan, support presumes acceptance of the current genetic analysis and stock boundaries developed by the Council. Also recognize that further investigations into cobia genetics and migratory patterns are ongoing and may change. Any questions, I will be glad to take them.

CHAIRMAN ESTES: Questions for Dr. Daniel, hold your powder if you're starting to make

some suggestions. Let's do the questions first if we could. Michelle.

DR. MICHELLE DUVAL: Just to add to what Dr. Daniel provided. Just to let folks know the other provision in Framework Amendment 4 that the South Atlantic Council approved in September of last year was a six fish vessel limit; our recreational sector as well. One per person up to six per vessel, and I guess I would look to Dr. McGovern; but I believe that the proposed rule for that amendment is in this regulatory limbo right now.

CHAIRMAN ESTES: Jack.

DR. MCGOVERN: Dr. Duval is correct.

CHAIRMAN ESTES: Robert.

MR. ROBERT BOYLES: Dr. Daniel, thank you for that great presentation. Talk to me a little bit about the mercury issue. We've got a lot of experience with aquaculture of cobia; a very fast growing species. Tell me a little bit more about some of the concerns about mercury, please.

DR. DANIEL: Yes sir, that was a concern that was raised by one of the AP members that he had read that there was a concern with mercury in cobia. I have not personally looked into that issue. I too am familiar, especially with the king mackerel fishery, when that arose eight, ten years ago; and the concerns that were raised there. I have not ever seen cobia listed on the mix, but I think if we can look into it and address that for the Advisors and for the folks that raised that. But I'm not aware of them being a concern as a result of their longevity. I have the same question.

CHAIRMAN ESTES: Wilson.

DR. WILSON LANEY: Thank you, Louis for the presentation. Did we have any updated insight as to when the ongoing genetic studies are going to be completed and we would have new genetic information?

DR. DANIEL: There was recently a workshop at VIMS, Virginia Institute of Marine Science brought together a lot of folks that are looking at different conventional tagging, satellite tagging, collecting samples for genetic research; to try to address some of the questions, concerns that linger, in regard to the genetic analysis that's been done separating out the two different stocks.

There has been the expectation that the data collections are going to occur this spring. They are still working on some of those, Wilson. Those fish haven't shown up yet. The hope is to get some samples from the various folks that have agreed to take them this year, get those to the investigators, and get those analyzed. We're looking at probably a year and a half before that data is prepared and analyzed and ready for primetime.

That sort of fits in with the stock assessment schedule at this particular moment; to where we would have the new genetic analysis and the new stock assessment going on at about the same time, probably looking at a year and a half from now. That was the latest that I received, so there may be some updates to that. But as far as I know that is up-to-date.

CHAIRMAN ESTES: Any more questions about the comments that we received? If not, do we have a series of slides that we can go through each one of these issues?

DR. DANIEL: Yes sir, I am ready to take you through it when you're ready.

CHAIRMAN ESTES: Let's roll.

**PROVIDE GUIDANCE TO THE
PLAN DEVELOPMENT TEAM FOR THE
DRAFT COBIA FMP**

DR. DANIEL: We're going to go through these. What we've done is put together a series of slides that look similar to the management issues contained in the PID; to try to give you an opportunity to provide input and guidance to

the staff, on how you would like to move forward with the plan. For Issue 1, Complementary Management with the Councils. The primary question I guess on the table is does the Commission want to continue development of a complementary FMP to the South Atlantic's Coastal Migratory Pelagics FMP?

CHAIRMAN ESTES: Yes, Robert.

MR. BOYLES: Yes.

CHAIRMAN ESTES: Yes, Michelle.

DR. DUVAL: I agree with Robert.

CHAIRMAN ESTES: Yes, Robert.

MR. BOYLES: Do you need a motion, Mr. Chairman? I'm going off your comment that said you would prefer to just have the conversation. I'm happy to make that in the form of a motion if you would like.

CHAIRMAN ESTES: I don't think that we need it, as long as we can make sure that we include that as an option in the document. Is that correct, Louis?

DR. DANIEL: Yes sir, if this is the direction of the Board we will begin developing the complementary FMP with the South Atlantic.

CHAIRMAN ESTES: Okay and I think we had already made a motion about that some time ago, we're just redoing it right now I think, so if you want to go on to the next issue.

DR. DANIEL: Sure, the next issue is: What Federal Management Measures Should Be Required in the Commission Plan? We have some sub-bullets there on should the Commission follow the federal quotas and should the Commission close, state waters close when the ACL is met?

CHAIRMAN ESTES: Reaction to that Robert.

MR. BOYLES: Yes and Yes.

CHAIRMAN ESTES: Any other reaction?
Michelle.

DR. DUVAL: I see the Council's plan as being sort of an umbrella that kind of sets a ceiling; in terms of regulations. I mean I think we did hear some different things at public comment with regard to specifics of what types of gears might or might not be allowed. I think those are questions better left to the states.

Should the Commission follow the federal quotas, yes with a complementary plan? I would agree I guess in terms of does the Commission close state waters when the ACL is met. I think what we're trying to do here is get something that is flexible to allow for the fact that you have some states within the region whereby their landings are occurring mostly in federal waters; and you have other states whereby the majority of harvest is occurring in state waters. I know for the weakfish plan that we have, the Commission requests the National Marine Fisheries Service to implement some complementary regulations in federal waters.

I'm hoping that might be the kind of approach that we could take here. The actions taken by the South Atlantic Council were to try to put some management measures in place that would not so severely impact the fishing public; particularly in regards to the accountability measures down the road. But I feel like if we could take that similar type of weakfish approach that could help out states like Georgia and South Carolina that the Council would be certainly amendable to that.

Because I recognize the significant economic impact that states to the south of North Carolina are feeling with the federal waters closure. That is a long winded way of saying; I'm hoping that we can implement something similar in that regard that would not necessarily require a closure of state waters when federal waters are closed.

I guess I'm thinking about sort of the red snapper situation in the Gulf of Mexico, where you have states that are implementing state waters measures. The federal government looks at those measures and makes a calculation as to how long federal waters can then stay open. I think we're trying to find a way to accommodate everybody here.

CHAIRMAN ESTES: Okay let me see if I understand. I think what you're saying, as far as the closing when the ACL is met; you want to see some flexibility in this plan, or some options about some flexibility. Is that what I'm hearing?

DR. DUVAL: In a nutshell, yes.

CHAIRMAN ESTES: Okay Rob and then Robert.

MR. ROB O'REILLY: Thank you I'll say, Mr. Chairman; and then from now on I'll be less formal. But I just wonder. Michelle's reference of course goes back to 1995 when the infamous Judge Doumar prompted that situation of complementary management with the Feds. But what I'm wondering is, since I'm not tied to the South Atlantic Council very closely or to SERO, do we know what they want?

What do they want, how do they want to go forward here? Three meetings ago a decision was made for complementary; so I understand that. But does that mean that there will just be the ACLs and the accountability measures and ASMFC is going to be taking care of other aspects; not quite like when red drum was turned over to the ASMFC.

Because we don't have the counselor or NMFS setting any type of quotas for red drum or anything like that. I have not attended this board meeting for a little while. But I have gone down to the South Atlantic Council a few times, and I just wonder where that emphasis is on the other end of this. Maybe Louis knows or Michelle knows.

DR. DUVAL: I'm sorry, Rob. Could you repeat the last part of the question? I was side-barring with John Carmichael here.

MR. O'REILLY: That's a worthy sidebar. I guess I'm wondering. We're talking about the ASMFC situation here, and we're going to unveil that and all the parameters. What is SERO saying and what is the South Atlantic Council saying; as far as what their expectations are of complementary management, because I do not know that.

DR. DUVAL: That's what started us down this road was a request from the Council that the ASMFC consider some form of complementary of joint management for cobia; given that the majority of the harvest is occurring within state waters.

I think speaking on behalf of the Council; our interest is in just setting some basic parameters that the states could then have the flexibility within that to manage their state waters fisheries. We don't want to try to dictate that. Obviously we're in a bit of a difficult situation for 2017, trying to find some management structure that is going to be flexible enough that the states can operate within.

MR. BOYLES: Reference is made to 2016 fishing year. The fishery closed on June the 24th. Can somebody state for me the record please, the catch of cobia in Waves 4. The latest data we've got, Waves 4 and 5, and potentially 6.

CHAIRMAN ESTES: Dr. Daniel, do you have that? You don't have it memorized do you?

DR. DANIEL: If I can get to it before John does.

MR. JOHN CARMICHAEL: I have the table if you would like me to say. I had numbers here through Wave 4 for 2016; it was 830,000 pounds landed in Wave 4 in North Carolina, Virginia, and Maryland.

CHAIRMAN ESTES: Robert, follow up and then Rob and then Lynn.

MR. BOYLES: I think some of the nuances here are challenging for all of us. But I think when I look at the issue here, particularly with respect to the 2017 closure, it seems clear to me that we have got to find a way to constrain the catch. Recognizing that it is, I guess I would call it a multi-modal fishery; some of our fisheries exist primarily in federal waters, some of us in state waters.

I just think it is very, very important that we recognize here the objective is to constrain the catch while maximizing access. That is my interest. That is why I answered those questions so emphatically. I think we should follow the federal quota. I think we should have some provisions to manage that quota in such a way that we don't see these overages continue to pile up year after year after year.

My anglers, quite frankly, are asking. We closed in June as we do, as a matter of policy and statute, South Carolina state waters; and yet we had tremendous catches Wave 4, and I understand Wave 5 as well; Wave 6 data is still outstanding. I just think it is important that we recognize what we are trying to accomplish here.

MR. O'REILLY: Before I talk about what Robert just said, I would like to say that Mike Larkin sent us the Virginia data alone, so 935,997. Wave 4 was really powerful; it was probably two-thirds of the total. It should be obvious that being in Virginia wondering what the heck is going on two years in a row, and that there is a bit of discomfort on my part that has lingered for quite a while now when I see that Georgia is 100 percent in the federal waters, and South Carolina the last couple years have moved more towards that.

North Carolina has a history of up and down with the federal waters, and Virginia in the last few years is strictly state waters. Having said that and sort of wishful thinking that it could be improved quickly. We do need to do something about the catch. That has to be very concentrated, because Michelle, at the last

South Atlantic Council meeting I attended, stated that she's not sure why the Virginia harvest was so high; because the measures that we had were more conservative than what were taken in North Carolina.

We have to look at that again. That is going to be a public hearing on March 28th, and my hope is that Commission in Virginia can be convinced that unlike some of the public when they saw the federal waters closure, they thought, oh the states get to do what they want. But I think our Commission will be advised quite differently; and that Wave 4 is powerful.

MS. LYNN FEGLEY: Yes, I just want to go on the record to say that we agree that the Commission should follow the federal quotas. But on the topic of closing state waters when the ACL is met, and you know part of this may get into however this thing is allocated, but as a state that sits on the northern fringe of this thing, it does concern me a little bit about access for the northerly anglers and anglers in the Bay.

We don't see a lot of these fish, but when we see them they're important. I would hate to find ourselves in the situation where all state waters close and these northern states, Maryland and north haven't even had a chance to have access to the fish. I don't know, along the lines of what Michelle was saying, if there is some further development we could do to how we manage closing and how we manage the ACL. I think that would be worthwhile.

CHAIRMAN ESTES: We need to move on here, so Dr. Daniel did you get enough gist there from the discussion to provide some options?

DR. DANIEL: I believe I did, so thank you.

CHAIRMAN ESTES: If you would like to continue.

DR. DANIEL: Where we're working with the Council staff and folks to develop the issues.

The next is the states being involved in the management unit. Again, should the Plan provide the flexibility to make changes to the management stock units to reflect changes in the science? This was an issue that was viewed as favorable by most folks.

Recognizing that if there is a change in the science that we would be flexible enough to make those changes in the Plan; and just making sure that the Board is in agreement that the current management unit that we'll be operating under is the Georgia/Florida line to New York boundary.

CHAIRMAN ESTES: Do we have agreement on that? Anyone disagree with that right now? Okay we can go forward.

DR. DANIEL: Management Issue 2 is a lot of just providing the objectives for the plan. But we have a series of bullets here that I'll review, as to make certain that this is your intent and purpose in developing this plan; to achieve long-term sustainability, to strive for consistent coastwide measures while allowing flexibility for alternative strategies, reach the FMP objectives, sustainable fisheries, maximize cost effectiveness, and long term management regime to minimize or eliminate annual modifications to management.

Some of those you heard repeated by the Advisors and the public, and those are their desires for the management goals and objectives. I would ask if those are acceptable to the board or if there are others that you would like to add or modify.

CHAIRMAN ESTES: Mr. Boyles.

MR. BOYLES: Dr. Daniel, I think those are good. I would suggest from my perspective, recognizing the rather unique temporal nature of this fishery and that fish show up down south before they show up further north. If we can do it, I think we should have something in there to provide equitable access.

I want to be very, very clear. You know it is not our interest, not my interest in trying to hog the fish. I think what I would like to be able to provide is equitable access to the resource for the anglers in the southern range, recognizing that this appears to be a growing fishery; certainly a growing interest in the fishery. I would like to see that somehow captured in the objective.

DR. DANIEL: Yes sir.

CHAIRMAN ESTES: Michelle.

DR. DUVAL: I agree with Robert a hundred percent.

CHAIRMAN ESTES: If we add that idea in here, is there anything up here on the board that anybody disagrees with? Malcolm.

DR. RHODES: Isn't that what we'll be facing with Management Issue 3, where we're doing regional, seasonal state-by-state allocation? I think we'll be pouring over that time after time in the next issue. I think this is great, trying to establish what we want to do. In the next one we'll be looking how we establish that ACL, or how we utilize the ACL; if I'm reading the document correctly.

CHAIRMAN ESTES: Yes, I think you're correct.

MR. O'REILLY: About the flexibility. At some point I would suppose that that would be addressed on how it can be flexible. In other words, there is not a framework situation, but there needs to be something almost like an in-season, but not quite adjustment to accomplish the variability in the movements of this stock.

I don't know how that would be, but at some point that needs to be talked about, because you don't want to wait until the next year and then have to go through a process to make a change. You want that change to be already part of the plan early. Does that make a little sense?

CHAIRMAN ESTES: Yes, I'm assuming that we'll get into those options, Toni?

MS. TONI KERNS: I guess I just have a question for the Board. Bullet Number 2 is Strive for Consistent Coastwide Measures While Allowing for Flexibility for Alternative Strategies. But what I'm hearing you all tell me is that the fish move up the coast at a different time period, and that you're getting to those fish in a different time period, and that you're wanting flexibility to have different regulations. I just want to make sure that it is the intention to really, truly strive for consistent coastwide measures. If it's not, then maybe that should not be a goal or objective of the plan.

CHAIRMAN ESTES: Robert and then Pat.

MR. BOYLES: Toni, I'm not sure they move up and down the coast. I think they arrive in various locations at different times. I think what my interest is in, if we had a magic wand, South Carolina has been somewhere 10, 12 percent of the total coastwide catch. I would love to try to say make a play that we could use more of that.

But I think if we can find a way to sustain this resource; recognizing the changing nature that some fisheries are being caught in state waters, some in federal waters. I mean my interest is, how do we share the pie and how do we do it equitably? "Consistency is the last refuge of the unimaginative," said Oscar Wilde. I'm not sure I'm as interested in consistency as I am in access.

MS. KERNS: Robert, I wasn't asking the question to add the goal that you were asking for. I more just wanted to know if we are truly striving for consistent coastwide measures; because it's a goal and objective of the plan right now. If that's not what the Board is trying to do, should we be taking that out to the public? As the PDT develops the FMP, they'll be using that in these goals and objectives to help them craft the measures; and so just trying to

provide as much clear guidance to them as possible.

CHAIRMAN ESTES: Let me go to Pat first, and then let me try to summarize or make a suggestion.

MR. PAT GEER: My thought on the consistent coastwide measures would be things like, and correct me if I'm wrong, bag limits, vessel and size limits as well and maybe as far as legal gears as well. I think to me that it is kind of important that we all have similar measures. Those are the consistent measures we're looking at.

CHAIRMAN ESTES: I think what I hear is I think that there are some things that are important but the consistency sounds like it may not be as important as some things. What it says now is that we're going to strive for consistent coastwide measures. It doesn't mean that we're going to necessarily achieve them. Is it all right how we have it now or do we want to change it?

MR. O'REILLY: I guess a lot of it depends on, we're going to be controlling landings right on a state-specific basis, so it may not be an issue. Once the pie that Robert is talking about, however that looks at its inception is one thing. What's more important is the ability to make sure that you have the flexibility; which is in here as part of that management scenario, because things will change. You have to adapt to that. I was talking about that more than anything else, because it does look as if at least from the start of this in 2018 that everyone will know through process of arbitration among the states, what their share of that pie is going to be. Then it is important after that to make sure that there can be adjustments; and that the adjustments don't have to take a year or two years.

MS. KATHY KNOWLTON: I think you might be able to get through this one by changing the wording to say, strive for flexible coastwide

measures, thus allowing for alternative strategies to reach the FMP objectives.

CHAIRMAN ESTES: Does anybody have a problem with that? Okay seeing none; that is enough direction I think, Louis on that Issue 2.

DR. DANIEL: Can you say that again?

MS. KNOWLTON: Sure. Strive for flexible coastwide measures, thus allowing for alternative strategies.

DR. DANIEL: Thank you.

MS. KNOWLTON: You're welcome.

CHAIRMAN ESTES: Okay you're up, if you want to go next.

DR. DANIEL: Next, Management Issue 3 is the coastwide, regional or state-by-state management options. Some of the questions could be should there be consistent commercial and recreational management? Should that management be coastwide, regional, state-by-state?

Are there regional differences in the fishery and/or resource that need to be considered when implementing management measures? I'll stop there. You've heard a lot of different things about regional management. There may also be an option for state-by-state; we'll get into that in detail. Can we pare this down, or do we want a whole big long suite of different options to take out for consideration?

MR. BOYLES: Just on the commercials and recreational, I'll tell you by statutes South Carolina declared cobia a game fish in South Carolina state waters several years ago. Just as long as the board is clear on that. There is no lawful take of cobia in the commercial fishery in South Carolina state waters. Our General Assembly made that decision several years ago, so I think it is important for us to recognize that the state of South Carolina looks at that fishery a little differently than perhaps it is elsewhere.

CHAIRMAN ESTES: Do we want to narrow this down? We have coastwide, regional or state-by-state. What's your pleasure? Rob.

MR. O'REILLY: Pleasure is state-by-state, but looking at the consistent aspect, you know size limit has been there, possession limits have not I don't think, compared to other states; so that is something to work on. Then since we're facing a second year of exceeding that ACL, there may be even more involved measures that take place on the commercial than we thought two years ago. I think the state should handle that part of it. It is similar, as far as how you look at that pie. I'm going to use that again. But we'll wait and see what others think.

DR. DUVAL: I would like to see flexible state-by-state management with regard to seasons and vessel limits, so that within each state there is opportunity for equitable access amongst the recreational sector, and allowing that for each state. In terms of commercial measures, I think what we've heard from the public is they want to see this managed as primarily a recreational fishery, optimizing recreational access; and so I would think that where there might be able to be some coastwide consistency would be in the commercial measures.

The Council took action in September to take just the existing two fish per person possession limit, and cap it at a maximum of six fish per vessel. I might respectfully suggest that something like that could be included as part of the commercial measures. I know that's lower down on the agenda, but I think flexibility on state-by-state, seasons, vessel limits to allow for equitable access.

CHAIRMAN ESTES: Okay, Lynn.

MS. FEGLEY: I think from our perspective state-by-state would be preferred. Regional would go next; again because of issues of access. Also a question here is whether or not there is a provision here that would allow for the idea of conservation equivalency by a state. Again, the cobia that we see when we do in Chesapeake

Bay tend to be of a smaller size; I just wanted to know if we would be able to include some sort of provision for developing conservationally equivalent management measures.

CHAIRMAN ESTES: First Rob.

MR. O'REILLY: I think this might end up being a mixture, and we don't have to decide what that looks like today. But I can see the size limit as being consistent. Again, just speaking about Virginia quickly, so we have really one situation, we have a commercial hook and line fishery; the licenses are limited and it's in the last four or five years 86 percent of the harvest.

Even though there is a provision that any commercial registered fishermen could have two cobias. It does not amount to a whole lot, it is one fishery the commercial hook and line fishery, and they currently have the ability to have six fish. We'll have to talk about that a little bit more, I think, and decide which measures could be uniform or coastwide, and which measures couldn't.

But again I think we're going to be down to maybe talking about the performance of the commercial fishery against the ACL, or maybe there needs to be something there as well; even though the recreational fishery is the large problem right now. The commercial fishery is a problem in a smaller way.

CHAIRMAN ESTES: Okay to move us forward a little bit let me see. I think what I'm hearing is that it depends. It depends on how you look at it, and then we have this issue about the conservation equivalency. Do we need more discussion about that? Michelle.

DR. DUVAL: I would like to see a provision for conservation equivalency. We have that in almost all of our plans. I think that is going to be necessary for this plan.

CHAIRMAN ESTES: Kathy.

MS. KNOWLTON: I would concur. I would look very forward to seeing the options laid out for the conservational equivalency; particularly taking into account the weight for the fish. We've seen a change, in terms of the size of the fish; we've seen a change in the proportion of the state landings, not necessarily being consistent in terms of the proportion of the landings versus the proportion of the weight in numbers of fish and weight of fish. I would like to very much look forward to that.

CHAIRMAN ESTES: Unless there is any disagreement with any of that we can hopefully move forward. Have you got enough direction, Dr. Daniel?

DR. DANIEL: Yes, yes, yes. We'll make it happen. The next bullet would be if regional or state-by-state measures are considered either there would be allocations of the quota for either commercial or recreational. How should allocations be determined, historical, what years, other methods, combination of both historical and some other method? Traditionally we've done a combination of methods to try to come up with as many allocation options as we can come up with.

There have been instances in the past where we've actually set up a workgroup to try to come up with allocation schemes on species such as American eel. I think some of this is going to take some working out; to try to look and see what the numbers look like as we move forward and see, but if there are specific suggestions on how to possibly look at the allocation as one of the options for consideration; that would helpful information or helpful guidance.

MS. KNOWLTON: I would strongly support a workgroup looking at some of this information, because we are working with a species that for a state such as Georgia, cobia can be a relatively rarely encountered fish harvest by our recreational fishermen particularly in the for-hire fleet. It is a fishery that is prosecuted by and large in federal offshore waters for us.

Having familiarity with the MRIP process and the data themselves, talking about the years through which you limit the allocation; in terms of the history, become exceedingly important when you look at the sample sizes that were collected. That is a really complicated issue, and one that is going to need a lot of familiarity with the data to zone in on the key issues, I think.

MR. O'REILLY: I support that. I think the Menhaden Board could have been well off to have that information the other day. It's a good idea to sort of see what everything looks like and then go through a negotiation, and then bring it forward maybe with a couple of options, and we'll see where it goes.

DR. DUVAL: I concur with that approach. I think there are different ways of looking at state-by-state allocations. I think both North Carolina and Virginia have attempted to provide their commissions with combinations of vessel and season lengths that would constrain harvest to the proportion of catch that has been traditionally caught off those states; versus a straight state-by-state allocation that we think of traditionally. I think we need to explore all of those options and a workgroup is the way to do it.

CHAIRMAN ESTES: Robert, are you volunteering for a workgroup?

CHAIRMAN BOYLES: No sir, I thought you had a good workgroup there in Ms. Knowlton and MR. O'Reilly actually; but I would be happy to help. I was just going to suggest, this sounds a lot like the menhaden discussion. I think a fishery like this one really screams for a weighted approach, because there have been some very dynamic changes in this fishery; in my state as well as in several other states. I think we do need to look at this carefully. Happy to help, Mr. Chairman, however you see fit.

CHAIRMAN ESTES: I would like to see some hands for a potential workgroup. Excuse me,

before we do that; Adam. You're over here and I can't even see you.

MR. ADAM NOWALSKY: Yes I'm going to not suggest myself; due to the limited experience I might have with it. But what I will offer is that on Monday we had our Climate Change Working Group, which I was a part of. One of the major issues we discussed there were allocation issues; recognizing the migratory patterns of the species change.

Ocean warming, salinity, many other factors that we all hope to understand fully one day. But what we did have discussion about is that that was obviously not the right venue to be talking about allocation as an appropriate policy. But we did recommend looking further at other ways to control access to the resource, equitable access over a geographic range.

I think allocation is an easy item to latch on to, it is a, oh it's mine I can do with it as I please sense, but yet I think we can all agree that allocation probably lends itself to the longest discussions and greatest amount of heartburn around this table over the years. Given that you have the opportunity to start from scratch here, essentially. I might encourage at least some time being spent to look at other potential avenues to provide for equitable access besides allocation; given the opportunity you have here.

CHAIRMAN ESTES: I'm not sure what those would be, but I think we should keep that in mind. I think that discussion probably needs to be had by the work group, so who wants to be on the work group? Rob.

MR. O'REILLY: I'm offering Joe Cimino, who is the sitting board member.

CHAIRMAN ESTES: I assume Kathy.

MS. KNOWLTON: Yes I'll not only offer to be on it, but for clarification I am not suggesting that me proxy-ing for Spud that Spud should be on it.

CHAIRMAN ESTES: Robert, did you want to participate?

MR. BOYLES: Yes sir.

CHAIRMAN ESTES: Lynn, Michelle, we're going to have the whole board on it that's good. Okay you want to move forward then, Dr. Daniel. Did we get what we needed?

DR. DANIEL: Certainly. I just would restate that if there are additional issues here we can address those in the work group. The next is Management Issue 4, which is Recreational Management Tools. I think we have a good sense of the various recreational measures that are currently in place for cobia.

A question that I have would be should we consider these various gear restrictions that were brought up at the various public comment periods and public meetings that we held. For example, the circle hook issues, the gaffing issues those types of issues; if that is something that the board would like to consider as an "accept or reject" type of gear type may be the simplest way to do it.

Then are there other management options that should be considered for the recreational fishery. Some of the things that we heard particularly were slot limits with generally a one fish bag limit that kind of gets a little complicated, a slot limit. There was some comment about not allowing fish over a certain size.

Again though that related back to some of the mercury concerns, if they do indeed exist, but also in protecting those largest, oldest females. Then there was also some discussions about spawning season closures; recognizing that certainly the bulk of the fishery occurs during the spawning season when the females are actively spawning, so would that be something to consider adding to the plan or not?

CHAIRMAN ESTES: Dr. Duval first.

DR. DUVAL: I don't have a problem with adding things in for the draft amendment with regard to slot limits or consideration of spawning season closures. I might say that each state might be best suited to make a determination on any spawning closure; if that is a tool they choose to use. With regard to any gear restrictions, I'm pretty loathe to step into that.

I think in terms of requiring it in an ASMFC plan, I think we've also heard concerns about gear restrictions as well; and I know just speaking from experience in other management venues that there is some pretty strongly divided opinions on the use of things like circle hooks. I would recommend at this time no. Certainly the states can choose as to whether or not they might want to implement some conservative gear restrictions.

CHAIRMAN ESTES: Okay before I go into my list, how about this issue about gear restrictions? Are we in agreement? I haven't heard anybody else about what we think about gear restrictions. Do you want to include those or not?

MR. O'REILLY: I think Michelle, you know her indication to look at it on the state level is the way to do it. It might be good to get more information on it. For example on the gaffing, we prohibited gaffing, but as soon as we did there were a lot of fishermen who said that's really not what you want to do; especially when you have as we did not so much a slot limit, but a trophy size where only one of the two vessel limit could be above 50. Spawning season, I was at a meeting where it took a few minutes for anyone to decide when the spawning seasons were. I don't mean that lightly, it's just that they referenced the South Carolina report and then went on from there. It is clear that in a lot of cases we're in the spawning season. Can the state take account of that? I think they can, and I think that's the way it should go. It's gone that way for other species, where I think by and large there could be some provisions for spawning but it would be a drawn out process, and I think the states should handle it.

Overall to get more information yes, I'm not even sure about the circle hooks. I guess that was originally for sharks, but now you see it for lots of different fisheries, and there seems to be sort of contradictory information depending on the species as well. But I can't say I know enough about circle hooks.

CHAIRMAN ESTES: I think what I'm hearing is that maybe some of these restrictions under Bullet Number 2 might be left up to the states and they don't need to be necessarily included in the plan. Is that what I hear? Okay.

DR. DANIEL: Yes I would think that if we just put some information on it in the plan it is going to draw attention. One thing is either to move forward with it or to leave it alone. It sounds like what I'm hearing from the board is leave it alone, the gear modifications, gear restrictions. Is that correct?

CHAIRMAN ESTES: Kathy and then Robert.

MS. KNOWLTON: I would agree that the list as it currently is should remain in the document for discussion. I would like to hear from my constituents their feelings about all the various combinations that are up there.

MR. BOYLES: I agree, Mr. Chairman. When we were looking at constraining out fishery we looked at several options, and it was helpful for us as we talked with our constituents; the difference between a spawning season closure, a slot limit, an increased minimum size and the implications of each one of those tools. I think since this is a document that we would like to get some public feedback on, if it is doable I would like to keep these things in there for the moment.

CHAIRMAN ESTES: Make sure I understand correctly. We would like to keep them in there and develop options around those, or we would like to have a discussion in the document so that our stakeholders can see it, and then we might be able to use that. Which one? Yes sir.

MR. DAVID BUSH: Obviously the fishery is dynamic. There are a lot of different people that fish it different ways. Each one of these types of restrictions affect them all differently. We have some very active folks in the fishery that can provide a lot of insight on that. If we're going to keep it in the document it probably would be good to just say that it is there for educational purposes to be used by states as they see fit.

It would be good, Dr. Daniel and them have said, to understand the implications of those restrictions; but again just letting them know that it is just here for you to understand how this is going to affect you. Then the states, you know as you've heard around me, choose from those options as it works for each state.

CHAIRMAN ESTES: That was much better said than how I said it. Does everybody agree with that; any disagreement? Louis, do you want to move forward then?

DR. DANIEL: Yes sir, moving on. The final is commercial management tools. Again, what are the appropriate commercial measures for cobia? Should the FMP consider again gear restrictions for here? I think we can just carry that forward from the discussion on recreational if that is the will of the board; and the same thing with the other management options.

Currently I think there is a two fish trip limit at 33 inches. I think it is a six fish boat limit. Those would be sort of where we started, and look at various options or surrounding that to move forward with the document; if you want to handle the commercial issues the same way you handled the recreational.

CHAIRMAN ESTES: First Adam and then Michelle.

MR. NOWALSKY: I'm sorry for not speaking up on the last slide. I thought we might have a couple more bullet points. If you would like I had another recreational comment. I can wait

for this discussion and then come back or do it now; what is your preference?

CHAIRMAN ESTES: Let's go backwards first and then we can finish this.

MR. NOWALSKY: There was another bullet point in the PID that talked about recreational data averaging, other mechanism three to five years very high overages, how to deal with that. We sat here for a very, very long time this morning. You are dealing with it with cobia already, and you don't even have the FMP that we're working on here.

New Jersey has very little if any interest in the actual management, due to the low level of harvest that occurs within our state. But I have to say we've got a lot of knowledge with recreational species, and I couldn't vote for anything that I saw history repeating itself in a negative way; with the continued misuse of the data in an unintended way.

To that end I strongly encourage all the members of this board to work in whatever way possible to build in mechanisms for mitigating those recreational harvest estimate limitations; specifically to look at averaging over multiple years, and specifically to not treating them as point estimates in the FMP, but rather as a range incorporating the PSEs as a starting point for discussion.

DR. DUVAL: I am glad Adam brought this up; to that point. This is a discussion that we've had, a very frustrating discussion that we've had at the South Atlantic Council level with regard to the point estimates of harvest and the PSEs around those estimates; and the recognition that the MRIP survey is not designed for these pulse fisheries.

We have had some significant conversation back and forth with folks up at Science and Technology and folks in the MRIP program, regarding some of the methodologies that they have come up with, and I think some of which were applied to I believe the black sea bass

recreational harvest estimates for 2016; whereby you were taking instead of the wave by wave estimate of catch that you were using, an annual estimate of catch applied to an annual estimate of effort.

After the MRIP presentation yesterday, I put a bug in Dr. Van Voorhees ear. This is something that I have requested the South Atlantic Council's SSC look at, because from the council perspective right now on the federal plan we have no in-season management measures. There is no need to have very spiky point estimates of harvest that we are using to track ACLs.

The reason that we're tracking ACLs right now is to determine whether or not an accountability measure needs to be triggered. I absolutely agree with Adam that we need some alternative methods; and that is why I bring this up here, because the MRIP program has come up with those. We have been informed that we can work with our SSC to utilize those methods. That's something I would recommend as the draft amendment is being developed, to work with folks within the MRIP program to try to apply those to estimates of cobia harvest.

CHAIRMAN ESTES: I have a question. Toni, I guess I was going to ask Dr. Daniel, but I think I'll ask Toni. Is that something that we could do?

MS. KERNS: I was side-barring with Bob. I had a question back to Michelle and John Carmichael. I can't answer Michelle's question, because I didn't hear it.

CHAIRMAN ESTES: If you are going to ask your question, I will kind of repeat her question.

MS. KERNS: Okay. As we were talking about data, one of the questions that we have, and maybe it is more specifically to John, but right now the recreational data that is being collected from Virginia south is being treated one way by the Southeast Regional Science

Center. But then everything else that comes in from Maryland north is treated a different way.

In order for us to work with that data we need some consistency on our recreational data. We're needing to see if the Southeast Region or South Atlantic Council can treat those limited northern states data the same way that they treat the southern state's data; in order for us to use that data consistently.

MR. CARMICHAEL: Yes and what you're alluding to is the Southeast has come up with an alternative method of estimating the weight of the catch, because of the scant weight observations that you have for the MRIP species. What they do is have another way of calculating an average weight.

What we've been told is that that is being used for all of the cobia data when they track the cobia ACL. They have access to all of the MRIP data, as anyone else does. They are using that mechanism that they use for all the other data on the Virginia data as well; and the other more northern states data as well, when they calculate the weight, so that they're treating South Atlantic and more northern areas all the same with regard to the MRIP.

But that is a good point and that is something that may need to have some clarification within the document; because it does mean if someone were to say take data taken from the southeast that has had this adjustment apply to it. It may not match data say for a particular state, wave, mode, or year that someone may extract themselves from the MRIP site.

CHAIRMAN ESTES: You good?

MS. KERNS: Yes, because if the states do start to develop their own specific regulations, we will be using that wave-specific-mode information and so it could become problematic down the line on how do you estimate what you think you're going to harvest based on these regulations; if the two don't match up?

EXECUTIVE DIRECTOR ROBERT E. BEAL: Just an aside I guess to John Carmichael. Is the same methodology used to calculate average weight applied to other South Atlantic species, or is it just Spanish mackerel or something else that overlaps ASMFC/South Atlantic Council FMPs, or is this just unique to cobia?

MR. CARMICHAEL: No, what the Southeast Center and the Regional Office are using is used for all of the southeast species. It is used in everything that we're doing and I believe in the Gulf as well. It is a Southeast Center, Southeast Regional Office approach that has been come up with to address the many species that in some cases have no weight observations within a cell, and very scant weight observation; so it is consistent across the board.

They are also working with the MRIP folks to try and have a way to get that approach perhaps even used broader within MRIP; because they really do consider it a better approach than what MRIP has done, which is more simplistic. It doesn't go as complex in terms of the borrowing average weights to fill in all the blanks. They've been working on that for a couple of years now; is my understanding. But there are a lot of things in the fire up there at MRIP. But they would like to see this perhaps be considered to become a standard practice.

CHAIRMAN ESTES: Toni, back to Adam and Michelle's suggestion, and it was about the variability of our MRIP estimates and how we know a species like cobia – and if I misstate what you were saying please correct me when I get done – that we have very spiky estimates if you look at individual waves.

Sometimes the PSEs, I looked at Virginia's data this morning. Sometimes the PSEs are like 50 percent for the whole year. There may be some analytical methods, and I think you said the council staff or SERO is working on some different methods in order to compare these things, or to clump them together.

DR. DUVAL: MRIP staff has come up with these methods. The South Atlantic Council's SSC received a presentation on these various methods in October of 2015. Prior to this, I mean earlier last year, I was conversing with Dr. Richard Merrick and MRIP staff as to who gets to be the decider as to when those methods are applied to MRIP estimates. I think we were under the impression in the South Atlantic that the Fisheries Service was the decider, in terms of when to apply those methods.

But the answer that we have gotten is that the MRIP estimates are the MRIP estimates. Once it's been determined that they are best scientific information available, the councils are free to work with their SSCs to apply these alternative approaches to those estimates for use in management. That is what we would like to do moving forward working with our SSC, is to apply some of those alternative methods to the MRIP estimates for cobia; see what those look like.

CHAIRMAN ESTES: I think I know what we're going to – go ahead.

MS. KERNS: Now I hear your question, Michele, sorry, and Adam alluded to this in sort of what he was discussing about applying averaging and having these different applications to the data; and I think we can build that into the plan. But I would question if the Regional Office still uses the point estimate, then I'm not sure where that gets you in terms of the ACL.

DR. DUVAL: Toni, to that point. That would be the alternative approach. The Council would make the decision that this is with the blessing of the SSC that this is the best scientific method available for tracking cobia harvest against the ACL. Again, the point is that we want to make sure we're not triggering an accountability measure when accountability measure doesn't necessarily need to be triggered; and vice versa.

CHAIRMAN ESTES: Okay are we good? Do you want to continue, Dr. Daniel?

DR. DANIEL: Just to bring up a couple of points that was brought up at the various public meetings. I mean there were significant concerns raised about the MRIP estimates; the small numbers of fish actually observed, leading to the numbers that were led to. I think one of the biggest concerns that were raised was the location of the sampling, the rarity of the samples, and just a lack of confidence in that information at this particular juncture.

Some of the questions that were brought up that I'm sure we're going to hear again, particularly perhaps in South Carolina and Virginia particularly, is an interest in those states to develop some methodology through reporting requirements to try to use in-state reporting as a proxy or in lieu of MRIP estimates.

I explained to them that the MRIP information is going to be the one that is used to track the quotas. But we will hear information, I think from those various states; especially those that are developing catch reporting requirements. There is a great interest in using that census type data as a mechanism to track cobia landings; as opposed to the MRIP landings. That is just an FYI for the Board, Mr. Chairman.

MR. O'REILLY: Yes that is in progress in Virginia, and for cobia, tilefish and striped bass for our trophy season. That has been passed by our commission. That is in effect. We're debating whether it is as sound as we wanted it. But at this time we do have the programs in effect. How it's used, whether it gets limited to use in a stock assessment, or whether it actually can complement, supplant, whatever it takes on the MRIP; that remains to be seen.

One thing Mr. Chairman that you said, the unusual part of 2016 is that the precision was so much better; cut in half essentially from 2015. I guess we all know sample size is very much responsible for that precision; but at the same time in all the years I've never heard anyone sort of look at that aspect as well.

In other words, just because you have a good precision, what really is that telling you about the underlying data? You know as far as did you load up and were samples taken in a limited amount of areas for a species like cobia that helped that as opposed to the year before? There is a lot there and I'm being a little bit of a rabbit, so I apologize; because you said don't do that. But the main thing is the reporting is in progress.

CHAIRMAN ESTES: We are all rabbits I think. Louis, do you want to continue?

DR. DANIEL: Other issues. These were sort of catch-alls that we put towards the end of the document. Should the fishery independent and dependent monitoring be included in the document? That is something that there are unfunded mandates that sometimes create issues and concerns for states.

But should the plan consider some level of de minimis? What I'm hearing and what I've heard around the table is we probably do need to at least consider that in the plan, particularly for the northern area. Again whether or not to include, we could look into the concerns related to the mercury levels in cobia; and then ask if there are any other issues. I would ask if you all are comfortable with that approach and addressing those issues, and then again if there are any issues that the board would like to consider in the plan.

CHAIRMAN ESTES: Reaction, yes sir.

MR. BUSH: I think at this point we can all agree that it's been a contentious road to this point. Again we've had some pretty active and vocal folks that are in the fishery that have addressed some issues that some of those ideas that we have some confidence we may be right against, and some we may be wrong against.

But within this draft FMP, I think it is going to be vital that we have a road map forward addressing some of these issues such as the genetics. What are we looking to do in the

future? I've asked some of the questions about since we've just recently sort of identified this mixing area, has this area been moving?

Is it static? Is it always there? Does it change? Is there a density dependent change between the northern and southern stocks that are right next to each other? But anyway not to get off point, I think that that needs to be sort of laid out as to what future priorities are, and how they would affect the plan in the future; so that folks who depend on this fishery have a better understanding of where we're going with it.

MR. GEER: Just a quick question, Mr. Chairman. What fisheries independent monitoring is going on, on cobia?

DR. DANIEL: I'm not aware of any, Pat. You may be able to glean some information out of some, perhaps this independent gillnet survey data in certain locations. But I mean as far as any directed independent gillnet sampling for cobia I'm not aware of; perhaps the longline survey for red drum may derive some information. But I haven't looked at that. I have no idea what would be out there and available at this particular point in time.

CHAIRMAN ESTES: Robert and then Kathy. Oops, Kathy.

MS. KNOWLTON: Is it okay if I go back and make an additional point about the allocation discussion for the workgroup?

CHAIRMAN ESTES: If it's a really short one that would be great.

MS. KNOWLTON: It is a really short one. Because of the portion of this fishery that is prosecuted and then dependent upon with their customers, the for-hire fishery, I would like to remind the work group that the changes to the methodology in 2012-2013 strongly affected our ability to intercept charter interviews in the field. Having conversation with the SMT staff about possibly looking in to the data and keeping that at the forefront of

their minds, is going to be helpful with the allocation discussions; there is no variance around zero. Even if we start looking at the point estimates and taking Adam's point into consideration with the variance and not clinging too hard to it's my fish; but there is very simply no variance around a zero estimate.

CHAIRMAN ESTES: Let me try to move us along here. I'm going to make a suggestion and if there is disagreement that's fine. I think we should have the fishery dependent information in here. I think we should have the de minimis consideration in here. Does anybody agree with that so far; disagree with that? Okay how about the concerns about mercury? Do we want to include that into this document or not? Robert.

MR. BOYLES: I'm advertising my ignorance. But I was not aware that that was an issue, so this is news to me. I would just as soon if it is not a concern to folks, I would just as soon not; just leave it out. We've got enough challenges in front of us. I mean if there are mercury issues in cobia, there are mercury issues in 800 other species of fish. I think we need to focus where we can.

CHAIRMAN ESTES: Any disagreement with that? Are there any other measures that anybody could suggest? Seeing none; are we finished?

DR. DANIEL: I think that concludes well, there are hands over to your left, Mr. Chairman.

CHAIRMAN ESTES: Yes sir, Wilson.

DR. LANEY: Relative to the mercury question, Robert, and Louis and Michelle may help me remember this. But I know Dana Sackett at NC State did a lot of work under Jim Rice looking at mercury concentrations in pelagic fishes offshore; and I don't remember if she looked at cobia or not. But my only comment would be, if there is some data out there that we could share with the public sure, fine.

But if there isn't anything, I think maybe some of those public comments may have been based on the fact that cobia is another large, top predator and they just do tend to accumulate mercury. As Louis already noted, I think the concerns would be about the same as for king mackerel probably.

DR. McGOVERN: Before I move off cobia, Mr. Chairman, I was wondering if I could make a motion to add somebody to the Plan Development Team.

CHAIRMAN ESTES: Is that appropriate? Yes sir.

DR. McGOVERN: I would like to add Ms. Deb Lambert to the Plan Development Team. If I get a second I could explain rationale.

CHAIRMAN ESTES: Wilson seconds.

DR. McGOVERN: Ms. Lambert, she's worked in the Office of Sustainable Fisheries and Headquarters for 11 years. She has a lot of experience with fisheries management. I've known her for a long time as well. She has a lot of experience with fishery policy issues. I think she would be a good addition to the PDT; and it would help her out too.

CHAIRMAN ESTES: The motion is to move to approve Deb Lambert to the Cobia Plan Development Team. Motion by Dr. McGovern and seconded by Dr. Laney. Is there any discussion needed? Is there any opposition to this? **Seeing none; the motion passes.** Is that all for cobia, sir? Okay let's go on to our next agenda item.

2016 RED DRUM STOCK ASSESSMENT

CHAIRMAN ESTES: We'll try to do this pretty quickly; hopefully quicker than that was. Red Drum Stock Assessment, if you all remember we had the Update Stock Assessment Peer Review presented to the Board last May. The Board had some concerns and questions about the stock assessment, and asked the TC and Stock Assessment Subcommittee to go back and

investigate several questions; and make some different runs. I think that we have a report on that by Angela, if you're going to talk about that if you would please.

PRESENTATION OF STOCK ASSESSMENT REPORT

MS. ANGELA GIULIANO: Certainly. You covered part of the first few slides here. We're jumping into the results of the assessment. I am just going to review just how we go to where we are. As Mr. Chairman mentioned, the Stock Assessment Subcommittee had been working on SS3 models in preparation for the Red Drum Peer Review, which was scheduled originally in August of 2015.

The models were not ready at that time; however final models were ready for a desk review in April. Just a note here, any information you would like on those results can be found in Addendum II to the SEDAR 44 Stock Assessment Report. As was said, the Management Board at the May meeting tasked the TC and SAS with updating the statistical catch at age models used to SEDAR 18; and this was due to concerns that the Board had with the SS3 model results.

At that time the Board gave us the discretion that it didn't have to be a true continuity run. We were able to incorporate new data sources as we saw fit. This work was done over the summer and fall of 2016. Based on meetings at that time, the TC and SAS recommended the statistical-catch-at-age model for management advice.

However, because of the new data sources that were incorporated, it necessitated a peer review. This peer review was conducted in December of 2016. Today you will be seeing the results of that assessment. There are two management units for red drum; there is a northern stock that is North Carolina and north, and a southern stock that includes South Carolina and south.

This split at the North Carolina/South Carolina border is supported by differences in genetics, life history characteristics, habitat use and tagging data. The model code that we used in this update is essentially unchanged from SEDAR 18. It is a fairly standard statistical-catch-at-age model with a few special features unique for red drum.

The first is the assumption of dome-shaped selectivity, given the slot limits and the life history of red drum moving offshore starting around Ages 3 and 4. In this model selectivity is estimated for ages 1 through 3. For ages 4 and 5 plus, it is estimated as a proportion of the Age 3 selectivity. For the northern model we also used external tag-based F estimates as an input similar to what you would do with an index. We also explored various data weighting between the data components; which included total catch, proportion-at-age data, the indices, and for the north inclusion of the tagging data. Total there were I believe 27 different data weighting options that were scored for the southern model and 36 for the north; ultimately though we ended up using the same data weighting as had been used for the preferred models in SEDAR 18.

We were kind of under a shortened timeline with updating these models since the May meeting, but we did try to address some of the recommendations from SEDAR 18; the first being the addition of the longline surveys, which measures the adult stock of red drum. In SEDAR 18 the maturity schedule based on North Carolina fish was used for both stocks.

In this assessment we have updated that using South Carolina data, so each stock now has its own maturity schedule. We also explored iterative reweighting and examined the correlations between parameters, which had both been recommended by the SEDAR 18 Review Panel. Moving into the results of the northern model, this model covered the time period of 1989 to 2013, and spans the Ages 1 through 7 plus; a reminder here that the

maximum age in the north is around Age 62, so that is a very large plus group.

The model had four fleets; a commercial gillnet beach seine fleet, a commercial other fleet, a recreational harvest fleet, and a recreational dead discard fleet. As I mentioned earlier, a longline survey was finally having enough years to add to the model; based on the criteria set by the TC and SAS during the data workshop.

We included the North Carolina longline survey data. We also updated the weighted age information to match SS3. Just as a note on the tag-based estimates that we used in the model, these were based on a study by Bacheler Et Al, and go from 1989 to 2004. These estimates were not updated when we ran the update to the assessment model due to concerns about changing reporting rate.

Around 2005 they were doing a high reward tagging study that would have affected the reporting rate. This is a slide describing the commercial removals. As you can see they are pretty variable, and most are coming from gillnets in North Carolina. The gillnet fleet here it should be noted, also includes dead discards; but also a 5 percent discard mortality rate on those fish assumed to be released alive.

This slide is the recreational removals. We have the harvest and the assumed dead discard mortality assuming an 8 percent mortality rate. As you can see through time, the increase in the dead discards as the catch-and-release fishery has become more popular and with the slot limits put in place.

Again most of these removals are coming from North Carolina, though this figure does show removals through New Jersey. You can see the large 2011 year class, specifically in the releases in 2012 and then the harvest in 2013. As I said earlier, most of these are from North Carolina; but actually 2013 is a unique year in that a significant portion of the harvest also came from Virginia landings.

There were five indices used in the northern model. On the top two figures here are for the North Carolina gillnets surveys for Age 1 on the left and Age 2 on the right. Again you can see that 2011 year class, which here is Model Aged 1 in 2012. In 2012 and 2013 being picked up by our indices, the North Carolina juvenile seine survey is the bottom left figure, and then we also used an MRIP CPUE index that you can see trending upwards in recent years. As I mentioned before, the new addition for this assessment was the North Carolina longline survey, which started in 2007 and it is used in the model to inform the 7 plus group.

This is a fit to the tag-based F-estimate data. For the harvest fleets this was separated out into ages 1 through 4. As you can see the tag-based estimates, particularly in the early years are very high; and come down in the early nineties. We also used tag-based data an F estimate for the release fleets, which is shown here.

In the model Age 1 recruitment is fairly variable, with again that strong peak in Model Year 2012 with the 2011 year class. The big issue with red drum that we have had is with this estimate of total abundance on this figure. We have grouped the ages into a couple different components.

The red line is the abundance estimate for ages 1 through 3, which is the portion of the stock that we have a lot of information on. Then the blue line here that seems to be driving that pattern in total abundance is the 4 plus abundance. There were concerns expressed by the Stock Assessment Subcommittee for a couple different reasons with this 4 plus abundance estimate.

Other than the obvious one that it doesn't really seem to track any abundance changes we would have expected with management measures that had been put in place, the plus group is very, very large. This is likely a model artifact. For the northern model we're in the same situation as before, where we don't have

a good sense of the abundance of those older age fish.

These are the selectivities for the four fleets. Each fleet has three time periods that were mainly based on changes in North Carolina regulations; because that is where most of the harvest is coming from. Sorry that green line is really hard to see up there. For each fleet the peak in selectivity is at Age 2.

As you can see in the most recent time period, which is the blue line, the selectivity curves tightened up as the slot limit was put in place in that last time block. For this slide it should also be noted that the recreational release fleet, these selectivities weren't estimated for that fleet. Due to issues with the lack of data on the size and ages of fish being released, these data were based on again a different Bacher Et Al paper describing the selectivities using tag data; and so they're fixed.

You can see from this figure the blue and red lines are for the recreational harvest fleet, and the commercial gillnet beach seine fleet. They have the highest F estimates of the four fleets. You can see that it is kind of latching on to that high tag-based estimate in the beginning of the time series for those two fleets with very high Fs in '89 and '90 and then coming down.

The green and yellow at the bottom are the commercial other fleet and the recreational release fleet. I guess with the two recreational fleets you can again see that 2011 year class coming through with the peak in F around, what is that 2012. Based on these results we looked at the three-year average SPR. This three-year average was recommended by the panel in SEDAR 18 due to the inter-annual variability of the SPR estimates. You can see here it increases through the nineties; peaking in 2005, and has been decreasing since then. The solid line on here is the 30 percent threshold that is used as the overfishing reference point for red drum; and the dash line is the 40 percent target. You can see based on these results that

we are above the targets. This is estimated pretty well with narrow confidence bounds.

We also used the profile likelihood, an AD model builder, which essentially gives you an estimate of the probability distribution of that 2013 estimate. As you can see, it seems like we are above, again the threshold of 30 percent and likely above the target of 40 percent for the northern model.

We did a five-year retrospective analysis. This is a little bit different than I feel like most of the species we see at ASMFC in that there is no directional bias. However, there were certain terminal years that resulted in a different result in the northern model. On top are the recruitment and the retrospective there, and then the three-year SPR is on the bottom.

In Terminal Year 2010 SPR is estimated much lower, but all the other years seemed to settle into the same solution. This is probably due to some sort of model instability, possibly some index conflicts. In SEDAR 18 there was also a sensitivity done looking at the removal of the tagging data, and it was found that the SEDAR 18 model was very tied to the use of the tag-based data, and if you removed it the stock results in very low SPRs.

The TC and SAS wanted to make sure to do the sensitivity again. In this case it seems that probably because the tag data ends in 2004, the model is not as sensitive anymore to the inclusion of the tag-based F data. Removing the tagging data results in slightly higher SPRs due to lower F estimates, and mainly increases the confidence interval around that three-year SPR estimate.

Moving into the southern model, again the time period covered is 1989 to 2013, and the ages are Ages 1 through 7 plus. There were five fleets in this model, one harvest fleet for Florida, one for Georgia, one for South Carolina. There is a Georgia/South Carolina dead-discard fleet and a Florida dead-discard fleet.

Also based on the data workshop we added four surveys to the model and removed the South Carolina electro-fishing survey. The four surveys that we added was the South Carolina stop-net survey, which is an Age 1 survey. The South Carolina Age 1 trammel-net survey, the South Carolina one-third-mile longline survey, and the Georgia longline survey; those last two again being new adult surveys.

As I mentioned earlier, we updated the maturity schedule based on South Carolina data, and updated the natural mortality and weight-at-age information to match SS3. As you can see for the recreational removals, again we're assuming an 8 percent mortality rate of those fish that are released alive.

Similar to the north you can see an increase in the dead-released discard mortality through time, and catches seem to have gone up in the last four years of the model. All three southern states had increases between 2009 and 2010 in their MRIP estimates. You'll see this with the F estimates later. Most of the increases in harvest in 2011 through '13 seem to be coming from the Florida harvest. For the southern model there are 11 indices included. This first slide is all of the Age 1 young-of-year indices. We have the Florida and Georgia young-of-year indices on top, the South Carolina stop-net survey, which was added really partially because it includes data in the early part of the time series that is lacking from some of these other data sources that start later; and the South Carolina Age 1 trammel-net survey.

This slide shows the data we have on those next older ages. We have the South Carolina trammel net Age 2 index, the top right and the bottom left are the Florida haul seine survey for Ages 2 and 3 respectively. You can see with these Age 2 and 3 indices it is not quite being predicted and fitting as well as some of those other surveys.

Then again we included an MRIP index, which for the south was important because it is one of the only surveys that span the whole range of

the species. Then this last slide is the three adult surveys that are used to inform the 7 plus group. We have the South Carolina one-mile longline survey, which goes from '94 to 2004 on the upper left and then the South Carolina one-third-mile longline survey that starts in 2007 through the present; and the bottom is the Georgia longline survey, which I should mention also samples fish in the northern part of Florida.

These are the estimates of Age 1 recruitment for the southern model. It basically varies without trend. You see one peak in Model Year 1995, and a peak in Model Year 2010 is actually the highest of the time series; though you will notice compared to the northern model, in particular all of these abundance estimates are very uncertain in the south.

Again the population abundance estimates here are grouped by Ages 1 through 3 where we have the most data; the red line at the bottom. You can see a slight increase through time in the Ages 1 through 3 abundance, this 4 plus abundance is fairly flat through the time series, and again doesn't seem to be showing the response to management measures that we would have expected and is a big suspicious.

That total abundance up top seems to be mainly driven by the dynamics we're seeing in the Ages 1 through 3. These are the selectivities by the five fleets. Florida only has one selectivity block, so again the green line that is really hard to see; it's the B2 fleet. That recreational release fleet is fixed in this model, again due to lack of data on the sizes and ages of those fish. That was again fixed, based on North Carolina tagging data.

That is the same as what was done in SEDAR 18. Then the time blocks for the Georgia and South Carolina recreational fisheries are based on changing regulations at those time periods. As I mentioned earlier in this model, the release fleet, so the Georgia/South Carolina release fleet that is estimated in the bottom right corner, the selectivities estimated for Ages 1 through 3, and then as a proportion of Age 3 it

drops as those fish move out offshore and there are less available.

The red and blue lines here are the Florida and South Carolina fishing mortality estimates, and those two fleets tend to have the highest F estimates. You can see as I said the MRIP estimates for Florida in recent years have been quite high. You can see that getting picked up in the fishing mortality estimates. Also of note are the F estimates for the release fleets, which the gold and light blue lines are the Florida and then Georgia/South Carolina release fleets on the bottom. There has been a general increase, a slight increase in the fishing mortality rate within those release fleets. These are the results for the three-year-average SPR. It starts off at about 0.6 in the beginning of the time series, and the terminal year estimate for the south is 54 percent; so a slight decrease through time. But again of note are these really huge confidence intervals making it very hard to definitively determine stock status.

Again we looked at the profile likelihood of that 2013 terminal year estimate. Again, compared to the northern model it is much wider; reflecting that imprecision in the estimate. However, the bulk of this probability distribution is above the threshold, and so it is likely that overfishing is not occurring.

Similar to the north, we didn't have any sort of directional retrospective bias in the southern model. However, the lowest recruitment which is on top, and the lowest three-year SPR which is the graph on the bottom, had the lowest results for each of those in the 2013 terminal year. While part of this could be due to conflicts in the data, it is also possible – as I said the adult longline surveys didn't start until 2007 with the two new recent additions.

It might be something to do with how many years of those surveys are included in the retrospective runs. I wanted to point out this figure from the report. One of the sensitivities we conducted was looking at what happens when you remove individual indices. The base

run is kind of hard to see, it is up by 0.6, where I think there are like four or five different lines overlapping each other.

This highlights again some of these data conflicts, but depending on which indices you include you can get a wide range of three-year SPR estimates. The lowest estimates occur when you remove the South Carolina trammel-net data and the MRIP survey. Those highest three-year SPR estimates are when you remove the Florida haul seine survey from the model.

Unsurprisingly given we didn't change any of the model code really, some of the issues we saw in SEDAR 18 persisted. The southern stock results are still very uncertain, making it hard to determine stock status; though it's probably good for relative trends. The plus group is large, particularly in the north. It is much larger than expected.

You don't see the trends in abundance, given the implementation of the slot limit. There are also still some concerns about pooling of data across fleets and time blocks; due to lack of data in those fleets and time blocks. However, we did see some issues improve such as the model results in the north being less sensitive to the inclusion of the tagging data.

For the future, the first was a recommendation also from SEDAR 18, but inclusion of the tagging data directly into the model. Currently it was calculated external to the model and stuck in, so including that with all of the uncertainty would be good; also exploring the fleets and time blocks, particularly the southern model. It seemed like the model was likely over parameterized.

Looking at ways to reduce the parameters in the south, and really getting into whether there is enough data to support all those different fleets and time blocks; depending on how much borrowing was occurring. Another improvement would be estimation of selectivity for the release fleet in the north and the Florida discard fleet in the south. Some early analysis

shows this could change some of the abundance estimates. If we have the data on those released fish, this might be something to pursue; and also explore the data weighting. Currently the model is very sensitive to how data is weighted. Looking into all those different data components and figuring out the optimal weighting is another direction for improvement. In conclusion, we're still unable to develop overfished reference points for these stocks; the abundance estimates just aren't there for the older ages.

In the northern stocks the stock is likely not experiencing overfishing there is no directional retrospective patterns, and the model results show less sensitivity to the inclusion of the external tag-based F estimates. For the southern stock the stock is also likely not experiencing overfishing though the model results are very uncertain; making this hard to know for sure. The retrospective pattern shows low SPR in 2013 compared to all other years. With that I don't know if we want to do questions now, or wait until after the reviewer's comments.

CHAIRMAN ESTES: I think we'll go ahead and hear about the review if Pat can do that and then we'll take questions after that.

PEER REVIEW PANEL REPORT

MR. PATRICK A. CAMPFIELD: I am going to quickly summarize the findings of the Desk Review Panel of the SCA assessments. The Review Panel consisted of Dr. Paul Rago, recently retired chief of the Population Dynamics Branch at the Northeast Fisheries Science Center and Dr. Cieri from Maine DMR, both experts in a variety of modeling approaches; including catch-at-age models.

Quickly on the process, the Review Panel and the Assessment Team convened on a webinar in mid-December to answer any questions the reviewers had and clarifications regarding the assessment report that they had received a couple weeks earlier and subsequently had a

couple calls to develop their findings and write the review report.

The Panel's overall findings were that they agreed with the assessment, and that both the southern stock and the northern stock, overfishing is not occurring in the average of the final three years used in the assessment; and agreed that no determination could be made on overfished or not overfished status.

The Panel finds the stock assessment acceptable for management use, both in the overall model outputs and in examining various indices. The Panel saw no major signs of trouble, but they did want to highlight that any small increases in F , in particular on older fish, would likely move the stocks into an overfishing status.

Angela showed these plots, so we'll skip past this. Those are the three-year SPRs. I will quickly go through each of the review Terms of Reference and the Panel's findings. The first term the assessment team met; that was to essentially evaluate the collection and treatment of data used in the assessment.

The Panel found that the Assessment Team did a very thorough job in evaluating the advantages and limitations of each data source; and agreed with the subset of surveys selected, and as Angela mentioned a smaller group of surveys in the north and 11 or so surveys in the southern stock.

The Panel did want to emphasize uncertainty in the magnitude and size composition of the recreational releases, and identify that as a top research priority needed to advance future redfish assessments; and again commended the addition in these current assessments of the longline surveys in the three South Atlantic states. Term of Reference 2 is to evaluate stock structure as defined in the assessment, and the Panel agreed with the South Carolina/North Carolina border to distinguish the stocks based on the life history and genetic differences. Term 3 was to evaluate the methods and

models used to estimate population parameters and reference points.

The Panel found that the Assessment Team did a thorough evaluation of the SCA Model with the various weighting alternatives and model runs; and agreed with the final selected runs. The Panel also noted the inability of the SCA model to establish reliable scale of either abundance or biomass, again preventing overfished status determination.

Term 4 was to evaluate the model diagnostics. As Angela summarized, both sensitivity and retrospective analyses were completed. The Panel found that this was sufficient and those analyses revealed conflicting patterns between fishery catches and indices. The Panel also recommended in the future to conduct likelihood profile analyses of the age-specific fishing mortality rates.

Term 5 was to evaluate methods to characterize and explain uncertainty. Again, the Panel found that the Assessment Team did a sufficient job here with the various error bounds and Monte Carlo Markov Chain analyses that were done in developing the model parameter estimates. Term 6, recommend best estimates of exploitation.

The Panel noted that the F estimates from the catch-at-age models were uncertain; and wanted to highlight that small changes in F can cause big changes in the SPR values. Again moving forward for the future, the Panel recommended exploring a relative F approach as a possible alternative, given the model's uncertainties and estimating scale of the various outputs.

Term 7 was to evaluate the choice of reference points and comment on the stock status determination. The Panel found that static SPR is useful for measuring overfishing, but again is very sensitive to small changes in F ; and the Panel agreed that both stocks appear to be above the management thresholds and targets,

with greater uncertainty in the southern stock status.

This is a plot developed by the reviewers just to exhibit how very small changes in the fishing mortality rate on older fish, which is on the X axis can quickly cause declines in the SPR; including those that may approach the threshold. In conclusion, the Review Panel found that the SCA model can be used for estimating overfishing or not overfishing status.

They also wanted to highlight that the concerns that were identified with the stock synthesis models also apply to the SCA models; because they're both age-based. The underlying problems are due to the exploitation pattern of red drum fisheries, as well as conflicting trends in the input data.

Nothing terribly new here, but if we get better data for red drum we should be able to improve the reliability of these models and these results. I think Angela and Jeff could provide more details on which types of data would really move things forward, but the Panel certainly agreed with their emphasis on recreational release lengths as one notable data deficiency. Finally, the Panel recommends careful consideration of relaxing management measures, notably concerned about increasing Fs on older fish. That is all I have for the Desk Review, Mr. Chairman.

CONSIDER BENCHMARK STOCK ASSESSMENT AND PEER REVIEW PANEL REPORT

CHAIRMAN ESTES: Here is what I would like to do. I would like to make sure that you're comfortable with what the presentation was that you just heard, and then we need to go back to we have a motion on the table from May of 2016. I think we've satisfied all the conditions to bring that back up on the table. I want to ask what you want to do with that. Then after that I want to have a very brief discussion about how we're going to go forward. Robert.

CONSIDER MANAGEMENT RESPONSES TO 2016 RED DRUM STOCK ASSESSMENT

MR. BOYLES: In the interest of time let me start by talking quickly. Thank you to the Stock Assessment Subcommittee and the Peer Review. I think this certainly clarifies some of the questions that we had. With that Mr. Chairman, **I would make a motion that we accept the Stock Assessment for Red Drum and the Peer Review as acceptable for management.** I guess that is in the form of a substitute motion that was on the table last May.

CHAIRMAN ESTES: Can we bring up that motion that we had last May? Do we have that? Okay so here is the motion that we had last May and here are the conditions that we said we had to meet before we would bring it back up. **Robert is suggesting a substitute motion. Okay do we have a second for that motion? Pat Geer.**

Is there a discussion about the motion to substitute? Seeing no discussion about that let me read the motion. **Move to substitute to accept the red drum stock assessment as presented today for management use; motion by Mr. Boyles, seconded by Mr. Geer.** Is there any objection to the motion? **Seeing none; this is a final action.** I guess it's okay if we don't have any objections. Seeing none; this becomes the main motion. Is there any objection to the motion? **Seeing none; motion passes.** Yes sir.

MR. BOYLES: Mr. Chairman if I may again in the interest of time again with appreciation to the staff to the Stock Assessment Subcommittee and to the peer reviewers. My questions have been answered and I'm satisfied with where we are. In terms of moving forward, I think I know what I need to do back home; and so I would recommend no further action at this time.

CHAIRMAN ESTES: There was a discussion at our, I think previous meeting that we might consider immediately going into an update including the 2015-2016 time series. What is the Board's pleasure as far as that issue goes?

MR. BOYLES: Mr. Chairman we did talk about that and I'm a little conflicted to be honest with you, recognizing how much work it has taken to get us to this point, recognizing the amount of work. I don't know that anybody is looking for things to do. There are a lot of bewildering questions for several of us that I think that I've got to do some work back home. I just wonder if the juice is worth the squeeze to do an update through 2016, to be honest with you at this point.

UPDATE ON SPOT AND ATLANTIC CROAKER BENCHMARK STOCK ASSESSMENTS

CHAIRMAN ESTES: Is there anyone that has an interest in that that we need to discuss? Seeing none; I guess we can move on to the next agenda item then. I think Jeff; you're going to give a presentation about where we're at with the spot and croaker assessments.

MR. JEFF KIPP: No presentation, just a brief update here. The Spot and Atlantic Croaker Assessment Modeling has been completed. Draft Assessment Reports have been completed and distributed to the Technical Committee and the Spot Plan Review Team and we're actually having a call tomorrow to review those with the TC and the PRT, get their approval and then those documents will be ready for the peer review; which is schedule to occur in March. The results of those assessments and the peer review will be presented at the May board meeting.

CHAIRMAN ESTES: Thank you, Jeff, any questions? Seeing none; we'll just keep rolling.

CONSIDER 2016 FISHERY MANAGEMENT PLAN REVIEW AND STATE COMPLIANCE FOR SPOT

CHAIRMAN ESTES: Mike is going to give us a lightning quick presentation about the Compliance Reports for Spot.

MR. MIKE SCHMIDTKE: I will make this as quick as humanly possible. First I'll go through the

status of the fishery. This graph shows commercial harvest in blue and recreational harvest in red throughout the time series that we have. Total landings of spot in 2015 are estimated at 4.44 million pounds; that is a decrease from 2014, as well as a decrease from the ten-year average.

The commercial fishery accounted for 49 percent of these landings with 2.2 million pounds, and this is less than half of the 2015 commercial landings. Virginia landed the majority of the commercial harvest in 2015. The recreational graph that you see here shows harvest in millions of fish, the red bars are harvest, green bars are spot that were released.

Recreational harvest of spot along the Atlantic Coast has varied throughout the time series between 3.6 and 20.1 million fish. In 2015 the recreational harvest was 6.1 million fish and this was a decrease from 2014. The majority of recreational harvest was caught in South Carolina. Since an assessment is currently underway, we did not run a traffic light analysis for spot for 2015; so I'm just showing the results of the 2014 traffic light analysis.

What we see here is the 2014 harvest composite index, and this index has shown some decline from 2009 through 2012, but has increased since then and did not trip in 2014. The abundance composite index did trigger in 2014 with a mean read proportion of 43.5 percent. Overall management triggers were not tripped in 2014 since both the harvest and abundance indices were not above the 30 percent threshold.

Nonetheless the analyses showed that there are declining trends in the fishery independent indices, and we hope that the ongoing assessment will provide more insight on the recent trends of the fishery. The omnibus amendment does not require specific fishery management measures in either the recreational or commercial fisheries for states within the management unit.

There is a de minimis qualification if a state's past three years of combined commercial and recreational catch is less than 1 percent of the past three years average of the coastwide combined commercial and recreational catch. Georgia has requested de minimis and qualifies under these standards. The PRT recommends that the Board approve the 2016 FMP review for spot, the compliance reports from the states as well as de minimis status for Georgia.

CHAIRMAN ESTES: Questions. Yes sir, David.

MR. BUSH: Quick question for you. I've been getting sort of beat up back home. These are a nearshore fishery, especially the spot, croakers, things like that and a lot of the management decisions we're hinging on have pretty big impacts back home, and they hinge on the abundance of some of these species or that's a big arguing point in it. One of the questions that have been brought up repeatedly is the use or the impact of NEMAP data. I've tried to ask around a little bit and I've gotten a few answers that it has influenced and it's been considered, it's been reviewed, but really nothing numerical so to speak. The majority of again the fishery is in the 60 foot and less. If you're showing a declining trend in independent indices, I'm curious where the independent data is coming from and why we're not putting more emphasis on the NEMAP information if it is useable at this point.

MR. SCHMIDTKE: After talking to Jeff just now, the NEMAP data currently isn't being used in the assessment model for spot. I would have to get more detail I guess from the Stock Assessment Team to be able to provide a more comprehensive answer, but the details surrounding each index that is and is not included will be outlined in the Stock Assessment Report.

MR. KIPP: I can just add to that. The NEMAP Index of Abundance is not being used in the model for spot. There is some biological data that is being used within the assessment and the NEMAP index is also being used in the

sensitivity analysis; so it is included in the assessment in that fashion.

MR. O'REILLY: **May I recommend approval of the 2016 spot FMP Review and also the rest of the screen flipped off, but the state compliance reports and there may have been something right after that.** I guess the de minimis.

CHAIRMAN ESTES: Second. Pat. Is there any discussion? Move to approve the 2016 Fishery Management Plan Review for Spot, and approve the de minimis status for Georgia. Motion by Mr. O'Reilly and seconded by Mr. Geer. **Is there any objection to this motion? Seeing none; motion passes.**

ADJOURNMENT

Is there any other business to come before the board today? It's a long time before dark, and if you all want to stay here we can do that. Seeing none; we are adjourned.

(Whereupon the meeting was adjourned at 3:29 o'clock p.m. on February 2, 2017.)



Atlantic States Marine Fisheries Commission

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MEMORANDUM

TO: South Atlantic State Federal Fisheries Management Board

FROM: Dr. Louis Daniel and Michael Schmidtke

DATE: April 25, 2017

SUBJECT: Cobia Management Options from the Working Group for South Atlantic Board Review

The Atlantic States Marine Fisheries Commission's (Commission) Cobia Plan Development Team (PDT) and Working Group have met on several occasions by conference call since the February 2017 South Atlantic State/Federal Fisheries Management Board (Board) meeting. The Draft Fishery Management Plan (FMP) should be on track for approval for public comment at the August Board meeting. Public Hearings would be in the late summer/early fall.

This memo provides the information discussed by the Working Group and solicits Board feedback for the various management options to be considered in the draft FMP.

Background:

Based on data through 2011, the SEDAR 28 (2013) stock assessment concluded that Atlantic cobia and Gulf cobia were not overfished (SSB>MSST) and overfishing was not occurring (F>MFMT). SEDAR 28 also incorporated genetic and tagging data, and the stock boundary was set at the Georgia/Florida line. The South Atlantic Fishery Management Council (Council) and the Gulf Fishery Management Council modified the stock boundary and updated the annual catch limits for Atlantic Migratory Group (AMG) cobia, located from Georgia through New York, and Florida east coast cobia through CMP Amendment 20B. The changes were implemented in March 2015.

In 2015 and 2016, AMG cobia landings exceeded the ACL and the overfishing level (OFL) recommended by the Council's Scientific and Statistical Committee (SSC) after SEDAR 28. As defined by the Council, landings greater than the OFL indicate that overfishing occurred in 2015 and 2016. NOAA Fisheries reduced the recreational season length of Atlantic cobia in 2016 and 2017.

As a result of the overages of the recreational ACL, the Commission was asked to consider complementary management of the AMG cobia stock. The Board directed the PDT to develop a complementary plan with the basic objectives to maintain catches within the Council prescribed catch limits and to provide states with the flexibility for maximum fishing opportunities for their respective stakeholders. The Board also initiated a Working Group, composed of Board members and proxies, to investigate potential allocation strategies.

Summary of the Fishery:

Recreational landings and commercial landings and ex-vessel values are presented in Tables 1 and 2. Landings north of Virginia are sporadic and will be included in the FMP. For this discussion, we focused on the 4 primary states that land AMG cobia: Georgia, South Carolina, North Carolina, and Virginia.

Table 1. Recreational landings of AMG cobia from 2005-2015 in pounds. Data sources: SEFSC

| Year | VA | NC | SC | GA | Total |
|------|---------|---------|---------|---------|-----------|
| 2005 | 577,284 | 322,272 | 5,793 | 3,358 | 908,707 |
| 2006 | 733,740 | 104,259 | 101,018 | 4,824 | 943,841 |
| 2007 | 322,887 | 90,197 | 268,677 | 64,708 | 746,469 |
| 2008 | 167,949 | 66,258 | 50,108 | 257,690 | 542,006 |
| 2009 | 552,995 | 123,061 | 76,229 | 3,997 | 756,282 |
| 2010 | 232,987 | 561,486 | 65,688 | 79,855 | 940,015 |
| 2011 | 136,859 | 121,689 | 3,565 | 90,375 | 352,488 |
| 2012 | 36,409 | 68,657 | 224,365 | 105,193 | 434,623 |
| 2013 | 354,463 | 492,969 | 19,130 | 29,224 | 895,786 |
| 2014 | 214,427 | 277,489 | 31,927 | 20,642 | 544,485 |
| 2015 | 718,647 | 630,373 | 123,952 | 67,804 | 1,565,186 |

* There are no MRIP-estimated recreational landings in numbers of AMG cobia in states north of Virginia.

Table 2. Commercial AMG cobia landings (pounds) and revenues (2014 dollars) by state/area, 2010-2015.

| Year | GA/SC | NC | Mid-Atlantic* | Total |
|---|----------|-----------|---------------|-----------|
| Commercial Landing in Pounds | | | | |
| 2010 | 3,174 | 43,737 | 9,364 | 56,275 |
| 2011 | 4,610 | 19,950 | 9,233 | 33,793 |
| 2012 | 3,642 | 32,008 | 6,309 | 41,959 |
| 2013 | 4,041 | 35,496 | 13,095 | 52,632 |
| 2014 | 4,180 | 41,848 | 23,111 | 69,139 |
| 2015 | 3,555 | 52,315 | 27,277 | 71,790 |
| Average | 3,867 | 37,559 | 14,732 | 56,158 |
| Dockside Revenues (2014 dollars) | | | | |
| 2010 | \$11,377 | \$70,377 | \$19,976 | \$101,730 |
| 2011 | \$19,666 | \$37,893 | \$21,666 | \$79,224 |
| 2012 | \$15,554 | \$66,887 | \$14,597 | \$97,038 |
| 2013 | \$15,639 | \$79,397 | \$35,792 | \$130,828 |
| 2014 | \$13,320 | \$95,462 | \$67,972 | \$176,754 |
| 2015 | \$11,151 | \$147,160 | \$75,360 | \$233,672 |
| Average | \$14,451 | \$82,863 | \$39,227 | \$136,541 |

*Georgia and South Carolina landings are combined to avoid confidentiality issues. Source: SEFSC Commercial ACL Dataset (December 2015) for 2010-2014 data; D. Gloeckner (pers. comm., 2016) for 2015 data. Mid-Atlantic States include Virginia, Maryland, New York, New Jersey. Landings are also reported from Rhode Island in New England.

BOARD DISCUSSION ISSUES:

1. Size and Bag Limits:

The current Council plan proposes a 1 fish bag limit and a 36" FL minimum size limit for federal waters recreational fishery. States appear prepared to complement these measures in state waters if they haven't already. The Working Group suggests the Commission FMP complement these actions and not provide opportunities to adjust at this time.

2. State-by-State Allocations:

Arguably, one method to provide states with the greatest flexibility in managing their recreational cobia fishery is to provide an allocation of the current ACL to each state. The Working Group has spent significant time reviewing the AMG cobia landings data, recognizing cobia are a pulse fishery that are considered a rare event species in the MRIP program.

The Council used the Southeast Fisheries Science Center (SEFSC) data for the SEDAR 28 Cobia stock assessment and those data have been certified as best available data by the SSC. The Board directed staff to use the SEFSC data in developing this plan, however, understanding and recognizing the differences in the two methods is important moving forward.

Concerns have been raised regarding the differences between the recreational landings data estimated from the Office of Science and Technology through the Marine Recreational Information Program (OST MRIP) and landings generated by the SEFSC. The primary difference in the methodologies center around average weights of the fish used to expand numbers harvested to pounds landed by state. The OST MRIP estimates are based on actual fish observed and may be estimated based on as few as one fish, while SEFSC estimates require a sample of at least 30 fish to generate an average (Table 3).

States without a sample size of 30 for a specific year may use an average over several years (e.g., Virginia) or be lumped with another state to meet the required sample size of 30 fish (e.g., SC and GA).

Table 3. Comparison of OST MRIP and SEFSC average weights for Virginia, North Carolina, South Carolina, and Georgia (2010-2015) (source: OST MRIP website; SEFSC).

| State-Year | Cobia # | OST MRIP Landings | OST MRIP Weight (lbs.) | SEFSC Landings | SEFSC Weight (lbs.) |
|------------|---------|-------------------|------------------------|----------------|---------------------|
| VA-2010 | 7,056 | 254,414 | 36.1 | 239,153 | 33.9 |
| VA-2011 | 4,119 | 107,424 | 26.1 | 139,622 | 33.9 |
| VA-2012 | 1,051 | 26,537 | 25.2 | 35,614 | 33.9 |
| VA-2013 | 10,735 | 224,442 | 20.9 | 363,865 | 33.9 |
| VA-2014 | 6,490 | 173,772 | 26.8 | 219,993 | 33.9 |
| VA-2015 | 21,173 | 882,022 | 41.7 | 717,676 | 33.9 |
| | | | | | |
| NC-2010 | 15,125 | 498,581 | 33.0 | 558,984 | 37.0 |
| NC-2011 | 4,478 | 145,796 | 32.6 | 119,347 | 26.7 |
| NC-2012 | 2,050 | 104,106 | 50.8 | 66,302 | 32.3 |
| NC-2013 | 19,224 | 506,067 | 26.3 | 491,527 | 25.6 |
| NC-2014 | 9,804 | 247,386 | 25.2 | 275,777 | 28.1 |
| NC-2015 | 16,166 | 695,842 | 43.0 | 642,213 | 39.7 |
| | | | | | |
| SC-2010 | 2,102 | 67,946 | 32.3 | 61,424 | 29.2 |
| SC-2011 | 0 | 0 | 0 | 0 | 0 |
| SC-2012 | 6,835 | 201,223 | 29.4 | 221,024 | 32.3 |
| SC-2013 | 634 | 9,873 | 15.6 | 15,146 | 23.9 |
| SC-2014 | 1,137 | 26,439 | 23.3 | 28,377 | 25.0 |
| SC-2015 | 4,182 | 124,933 | 29.9 | 124,316 | 29.7 |
| | | | | | |
| GA-2010 | 2,637 | 89,840 | 34.1 | 77,064 | 29.2 |
| GA-2011 | 3,304 | 74,651 | 22.6 | 88,049 | 26.6 |
| GA-2012 | 3,185 | 97,766 | 30.7 | 102,996 | 32.3 |
| GA-2013 | 1,189 | 25,183 | 21.2 | 28,427 | 23.9 |
| GA-2014 | 792 | 19,079 | 24.1 | 19,768 | 25.0 |
| GA-2015 | 2,282 | 26,499 | 11.6 | 67,851 | 29.7 |

Staff and the Working Group expressed concerns regarding the average weights as being high. In some years, the average size exceeds the weight required to receive a citation for an outstanding catch.

Staff provided the Working Group with multiple views of the landings from both the OST MRIP and SEFSC that included head boat landings, various time series (3, 5, and 10 years), and an option that accounts for both historical and recent landings by multiplying the annual average landings from a 10 year time series by 50% and adding that value to 50% times the annual average landings for the most recent 5 years in the that time series (henceforth referred to as a 5yr/10yr average) (Tables 4-7).

Table 4. Average AMG Cobia landings and percentage of total landings by state for the 3 year, 5 year, 10 year, and 5yr/10yr averages (**2005-2014**) (Data source: SEFSC w/ headboat).

| State | 3yr % | 5yr % | 10yr % | 5yr/10yr % |
|----------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Georgia | 51,051 lbs. 8.1% | 63,873 lbs. 10.1% | 64,391 lbs. 9.0% | 64,132 lbs. 9.5% |
| South Carolina | 91,174 lbs. 14.5% | 67,751 lbs. 10.7% | 83,054 lbs. 11.7% | 75,402 lbs. 11.2% |
| North Carolina | 279,163 lbs. 44.5% | 303,329 lbs. 47.8% | 221,266 lbs. 31.1% | 262,297 lbs. 39.0% |
| Virginia | 206,491 lbs. 32.9% | 199,649 lbs. 31.5% | 342,608 lbs. 48.1% | 271,128 lbs. 40.3% |
| Total | 627,879 lbs. 100% | 634,602 lbs. 100% | 711,319 lbs. 100% | 672,959 lbs. 100% |

Table 5. Average AMG Cobia landings and percentage of total landings by state for the 3 year, 5 year, 10 year, and 5yr/10yr averages (Data source: SEFSC w/ headboat).

| State | 3yr % | 5yr % | 10yr % | 5yr/10yr % |
|----------------|------------------------|-----------------------|-------------------------|-----------------------|
| Georgia | 39,474 lbs. 4.0% | 61,993lbs. 8.2% | 71,100 lbs. 9.2% | 66,546 lbs. 8.7% |
| South Carolina | 58,845 lbs. 5.9% | 80,088 lbs. 10.6% | 95,212 lbs. 12.3% | 87,650 lbs. 11.4% |
| North Carolina | 471,250 lbs. 47.0% | 320,015 lbs. 42.2% | 253,529 lbs. 32.7.0% | 286,772 lbs. 37.4% |
| Virginia | 433,845 lbs. 43.2% | 295,354 lbs. 39.0% | 354,811 lbs. 45.8% | 325,082 lbs. 42.4% |
| Total | 1,003,414 lbs. 100% | 757,450 lbs. 100% | 774,652 lbs. 100%. | 766,050 lbs. 100% |

Table 6. Average AMG Cobia landings and percentage of total landings by state for the 3 year, 5 year, 10 year, and 5yr/10yr averages (**2005-2014**), including headboat landings (Data source: OST MRIP website).

| State | 3yr % | 5yr % | 10yr % | 5yr/10yr % |
|----------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Georgia | 47,997 lbs. 8.6% | 61,916 lbs. 10.6% | 68,249 lbs. 10.0% | 65,082 lbs. 10.3% |
| South Carolina | 82,170 lbs. 14.7% | 63,653 lbs. 10.9% | 76,263 lbs. 11.1% | 69,958 lbs. 11.0% |
| North Carolina | 286,507 lbs. 51.3% | 300,944 lbs. 51.5% | 228,728 lbs. 33.4% | 264,836 lbs. 41.7% |
| Virginia | 141,584 lbs. 25.4% | 157,318 lbs. 27.0% | 311,639 lbs. 45.5% | 234,478 lbs. 37.0% |
| Total | 558,258 lbs. 100% | 583,831lbs. 100% | 684,879 lbs. 100%. | 634,354 lbs. 100% |

Table 7. Average AMG Cobia landings and percentage of total landings by state for the 3 year, 5 year, 10 year, and 5yr/10yr averages (**2006-2015**), including headboat landings (Data source: OST MRIP website).

| State | 3yr % | 5yr % | 10yr % | 5yr/10yr % |
|----------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Georgia | 24,379 lbs. 2.5% | 49,211 lbs. 6.6% | 70,868 lbs. 9.1% | 60,039 lbs. 7.8% |
| South Carolina | 56,647 lbs. 5.7% | 74,809 lbs. 10.0% | 88,334 lbs. 11.3% | 81,571lbs. 10.7% |
| North Carolina | 483,890 lbs. 48.8% | 340,418 lbs. 45.5% | 274,266 lbs. 35.1% | 307,342 lbs. 40.2% |
| Virginia | 426,745 lbs. 43.0% | 282,839 lbs. 37.8% | 348,164 lbs. 44.5% | 315,501 lbs. 41.3% |
| Total | 991,661 lbs. 100% | 747,277 lbs. 100% | 781,632 lbs. 100%. | 764,453 lbs. 100% |

Excluded from all these analyses are landings data from north of Virginia. Using SEFSC data, those landings are:

2005 – Delaware – 1,480 lbs.

2006 and 2012– New Jersey – 27,863 lbs. and 69,655 lbs., respectively

2010 and 2016 – Maryland – 1,287 lbs. and 1,762 lbs., respectively.

Average landings and percentages by state vary based on the time series selected and the landings estimate used. As a result of concerns raised over the variability in average weights throughout the management unit and the observation that total numbers of fish harvested

were consistent between methods, we examined the landings by number of fish to eliminate any bias or concern relative to average weights. While any landings estimation method may be selected, using the 5/10yr averaging method for the 2005-2014 time series appears to smooth out the variability in the results from other methods and time series, and was used in this simple comparison (Table 8).

Table 8. AMG Cobia landings calculated as 5yr/10yr averages for 2005-2014 in pounds and numbers. State percentages of the coastwide totals of these landings were multiplied by an example ACL of 620,000 pounds to estimate potential state landings allocations in pounds under each allocation strategy (percentages from pounds versus percentages from numbers) (Data source: SEFSC w/ headboat).

| State | 5yr/10yr Pounds | Percent Allocation | ACL | 5yr/10yr Numbers | Percent Allocation | ACL |
|----------------|-----------------|--------------------|--------------|------------------|--------------------|--------------|
| Georgia | 64,132 lbs. | 9.5% | 58,900 lbs. | 2,221 | 10.2% | 63,240 lbs. |
| South Carolina | 75,402 lbs. | 11.2% | 69,440 lbs. | 2,521 | 11.6% | 71,920 lbs. |
| North Carolina | 262,297 lbs. | 39.0% | 241,800 lbs. | 8,932 | 41.2% | 255,440 lbs. |
| Virginia | 271,128 lbs. | 40.3% | 249,860 lbs. | 7,999 | 36.9% | 228,780 lbs. |
| Total | 672,959 lbs | 100% | 620,000 lbs. | 21,673 | 100% | 620,000 lbs. |

Based on the review of the Working Group, there was clear interest in considering numbers of fish to examine allocations among states, if it is a direction of the Board.

3. Seasonal Options:

Data are sparse for analysis of seasonal options outside of wave data and are variable based on the years chosen for review (Figure 1). Peak landings occur during wave 3 from Georgia through North Carolina (May-June) with limited landings after wave 3. Landings vary for Virginia with peaks occurring during waves 3 and 4 (July-August) and landings occurring as late as wave 5 (Sept-Oct).

Figure 2 provides coastwide landings for the most recent years (2013-2015) and indicates an extension of availability later into the fall (wave 5).

The Council examined the potential for changing the fishing year start date to May 1 using the most recent landings information (2013-2015) via a framework but later removed because fishing year changes can only be made via an amendment. Based on Council analysis, and recognizing that landings of AMG cobia are minimal prior to May 1, season lengths could be extended 3-4 days by delaying the coastwide opening until May 1 (Table 5).

Based on review, coastwide seasonal options are limited. A January 1 start date for the fishing year and vessel limits that range from 1 to 6 fish, result in seasonal closures ranging from July 15 – August 22. Changing the fishing year to begin May 1, provides coastwide seasons that close ranging from July 19 – August 25.

State specific impacts of a coastwide seasonal closure vary. Based on the most recent years (2013-2015), the majority of individual state's catches are taken during waves 2 and 3 in Georgia (80%), South Carolina (82%), and North Carolina (90%), whereas 70% of the catch is taken during waves 4 and 5 in Virginia.

While Virginia had no wave 2 landings reported from 2006-2015, wave 2 accounted for nearly 100% of the landings in Georgia, and 16-26% of the landings in North Carolina and South Carolina respectively, in some years.

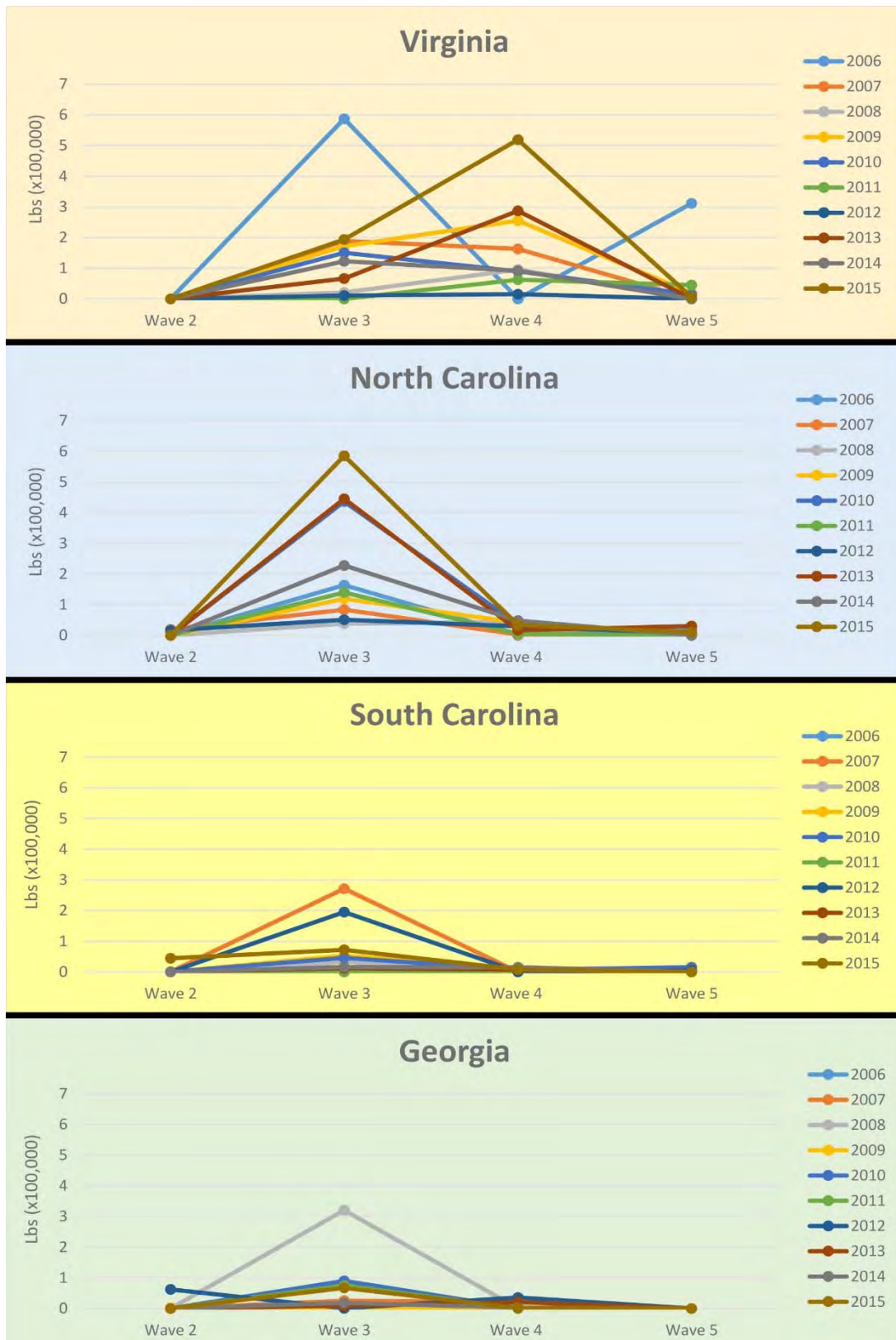


Figure 1. Recreational catch of Atlantic cobia by wave from 2006-2015 for Waves 2-5. Data sources: SERO and MRIP database—Framework 4.

Table 9. Framework 4 proposed but omitted Table 2.2.1. Estimated dates when Atlantic cobia recreational landings would meet the recreational ACL under the range of minimum size limits, bag limits, and vessel limits, if the fishing year is changed to May 1-April 30. Highlighted cells were the current preferred alternative prior to dropping season closures in Action 1.

| Minimum Size Limit (inches fork length) | | | | | | | | | |
|---|--------|--------|--------|--------|--------|--------|--------|------|------|
| | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 45 | 50 |
| Bag Limit | | | | | | | | | |
| 1 per Person | 5-Jul | 8-Jul | 13-Jul | 19-Jul | 26-Jul | 3-Aug | 8-Aug | None | None |
| 2 per Person | 2-Jul | 6-Jul | 10-Jul | 16-Jul | 23-Jul | 31-Jul | 4-Aug | None | None |
| Vessel Limit | | | | | | | | | |
| 1 per Vessel | 2-Aug | 7-Aug | 14-Aug | 25-Aug | 20-Mar | None | None | None | None |
| 2 per Vessel | 14-Jul | 18-Jul | 23-Jul | 31-Jul | 8-Aug | 18-Aug | 24-Aug | None | None |
| 3 per Vessel | 8-Jul | 12-Jul | 16-Jul | 23-Jul | 30-Jul | 8-Aug | 13-Aug | None | None |
| 4 per Vessel | 6-Jul | 9-Jul | 14-Jul | 21-Jul | 27-Jul | 5-Aug | 10-Aug | None | None |
| 5 per Vessel | 5-Jul | 8-Jul | 13-Jul | 20-Jul | 26-Jul | 4-Aug | 9-Aug | None | None |
| 6 per Vessel | 3-Jul | 7-Jul | 11-Jul | 18-Jul | 24-Jul | 1-Aug | 6-Aug | None | None |

Note: As with **Table 2.1.1** this analysis assumed consistent regulations in state and federal waters, and estimated the dates based on recreational landings from 2013-2015.

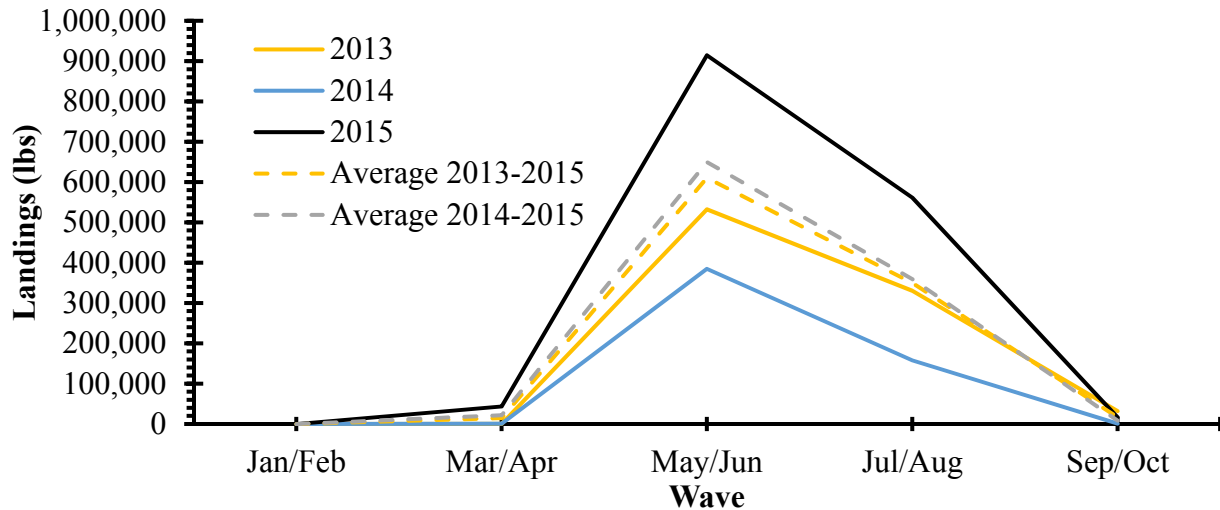


Figure 2. Framework Figure 2.2.1. Atlantic recreational landings for January-October of 2013, 2014, 2015, average 2013-2015 landings, and average 2014-2015 landings by two-month wave. The landings for 2015 are preliminary. Source: SEFSC Recreational ACL Dataset

A detailed analysis of state-specific landings information was conducted by Chris Wilson (NC Department of Marine Fisheries). The analysis was provided to members of the Working Group and the PDT. Summary findings illustrate the variability in the impacts of seasons, size, bag, and vessel limits on individual states. These data tend to indicate that mandated seasonal options remove flexibility from the states and the data are available, though confidence varies, for states to modify seasonal opening based on their fishery needs.

A summary table provides some of the general information from the state specific analysis (Table 10). The analysis also provides state specific information at the month level as opposed to wave. The analyst does not recommend reducing time periods to less than 1 month due to data limitations.

Table 10. Cobia Harvest reductions by state from a coastwide 36" FL size limit (36"), a coastwide 36" FL size limit with a 1 fish bag limit and season open May 1 (May 1), and a coastwide 36" FL size limit with a 1 fish bag limit and season open June 1 (June 1)

| State | 36" | May 1 | June 1 |
|--------------|------------|------------|------------|
| Georgia | 28% | 37% | 60% |
| SC | 11% | 58% | 66% |
| NC | 5% | 49% | 73% |
| VA | 11% | 44% | 48% |
| Total | 11% | 47% | 61% |

In summary, variability in catch rates over the past decade indicate landings are increasing and have recently exceeded the ACL by a wide margin. A consistent size limit of 36" FL in state and federal waters along with a 1 fish bag limit is unlikely to constrain catches if recent annual harvests are an indication of future success. Consequently, vessel limits, season start dates, and

season lengths are the primary mechanisms examined to further constrain landings to achieve the FMP objective of maintaining catches within the ACL.\

Board Decisions/Discussion:

What set of years should the PDT use in the draft FMP for management options (years used and number of years)?

Use average weights (SEFSC or MRIP) or numbers of fish?

Are specific seasons options wanted for the FMP, or are they best left to the states to develop and have approved by the TC and Board?

If specific seasons are needed in the FMP, should they be based on a state-specific allocation? Are there other options to ensure equity and accountability?

The PDT expressed some interest in spawning season closures, suggesting an early season closure that extended through May would provide an increase in population egg production. The state of South Carolina has implemented a May closure in their southern management unit to reduce harvest and facilitate spawning. **Should the plan include options for similar closures in other states, adapted to the timing of spawning in those areas?**

Based on current state actions that implement 3-4 fish vessel limits, we are unclear as to how those limits may constrain catches to the level required for NMFS to re-open the EEZ to harvest. Providing access to the cobia resource in federal waters is a critical need for most states. Based on recent performance in the fishery, vessel limits greater than 2 may impact the fishery in the EEZ. However, later start dates or in season closures at the state level may provide NMFS with the assurance they need to minimize the chances of exceeding the ACL. **Are there Board-preferred options on how to complement the federal management strategy (for example, one option may include “extension” of state regulations into adjacent federal waters)?**

Regardless of the allocation scheme used, concern has been raised over tracking the ACL on a state or coastwide basis in real time using MRIP. While all states may have port agents to observe catches, effort data are unavailable until after waves are complete and could result in impacts despite best efforts to control. **Should the plan attempt to develop alternative quota monitoring methods to track the ACL on a scale that is finer than waves?** These efforts would have to be developed with NMFS and the Council.