

Atlantic States Marine Fisheries Commission

Summer Flounder, Scup, and Black Sea Bass Management Board and Mid-Atlantic Fishery Management Council

*April 30, 2018
10:00 a.m. – 3:00 p.m.
Arlington, 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/R. O'Reilly*) 10:00 a.m.
2. Board Consent 10:00 a.m.
 - Approval of Agenda
 - Approval of Proceedings from February 2018
3. Public Comment 10:05 a.m.
4. Consider Approval of Summer Flounder Draft Amendment and Public Hearing Document for Public Comment (*K. Dancy/K. Rootes-Murdy*) 10:15 a.m.

Action

 - Review Management Alternatives
 - Presentation of Management Documents
5. Lunch Break 12:00 p.m.
6. Summer Flounder, Scup and Black Sea Bass Management (*J. Beaty/C. Starks*) 1:00 p.m.

Possible Action

 - Overview of Black Sea Bass Recreational Management Discussion Document
 - Review Draft Alternatives for Framework/Addendum on Recreational Issues
 - Review Preliminary February 2018 Black Sea Bass Recreational Harvest Estimates
7. Other Business/Recess 3:00 p.m.

The meeting will be held at the Westin Crystal City, 1800 S. Eads Street, Arlington, Virginia; 703.486.1111

MEETING OVERVIEW

Summer Flounder, Scup, and Black Sea Bass Management Board and Mid-Atlantic Fishery Management Council Joint Meeting

April 30, 2018

10:00 a.m. - 12:00 p.m. and 1:00 - 3:00 p.m.

Arlington, Virginia

Chair: Bob Ballou (RI) Assumed Chairmanship: 10/17	Technical Committee Chair: Greg Wojcik (CT)	Law Enforcement Committee Representative: Snellbaker (NJ)
Vice Chair: Adam Nowalsky	Advisory Panel Chair: Vacant	Previous Board Meeting: February 8, 2018 and Conference Call on March 20, 2018
Voting Members: NH, MA, RI, CT, NY, NJ, DE, MD, PRFC, VA, NC, NMFS, USFWS (13 votes for Black Sea Bass; 12 votes for Summer Flounder and Scup)		

2. Board Consent

- Approval of Agenda
- Approval of Proceedings from February 2018

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 Approval of Summer Flounder Draft Amendment for Public Comment (10:15-12:00 p.m.) Action

Background

- The Board and Council initiated a comprehensive amendment on summer flounder management in 2014. Since then the focus of the Draft Amendment has shifted to commercial management issues, specifically federal permit requalification, commercial allocation, and landings flexibility.
- In December 2017, the Board and Council were presented a range of alternatives on each of the commercial management issues and provided feedback on the development of the Draft Amendment. **(Supplemental Materials)**
- A Draft Public Hearing Document has been developed that summarizes the proposed alternatives and their expected impacts. **(Supplemental Materials)**

Presentations

- Review Management Alternatives and Management Documents by K. Dancy and K. Rootes-Murdy

Board actions for consideration at this meeting

- Review and Approve Public Hearing Document for public comment
- Approve Summer Flounder Draft Amendment for public comment

5. Lunch Break

6. Summer Flounder, Scup and Black Sea Bass Management (1:00-3:00 p.m.) Possible Action
<p>Background</p> <ul style="list-style-type: none">• Some Commissioners have expressed interest in exploring ways to improve black sea bass management, and have prepared a discussion document to help the Board and Council strategize management in future years. (Supplemental Materials)• In December 2017 the Board and Council initiated a joint Framework/Addendum to address several recreational issues for summer flounder, scup and black sea bass, including Conservation Equivalency for black sea bass, slot limits, and transit issues. The Council formed a Fishery Management Action Team (FMAT) to develop draft alternatives. (Briefing Materials)• In March 2018, the Demersal Committee of the Council reviewed and provided feedback on the draft alternatives for the Framework/Addendum. (Briefing Materials)• In October 2017, the Council and Board approved like motions to open a black sea bass recreational fishery in February 2018. 100,000 pounds of harvest were allocated to that fishery, with each state allocated a proportion of the total based on historical wave 1 harvest. Only the states of Virginia and North Carolina participated in the 2018 February fishery. (Briefing Materials)
<p>Presentations</p> <ul style="list-style-type: none">• Overview of Black Sea Bass Recreational Management Discussion Document by A. Nowalsky• Review of Draft Alternatives for Framework/Addendum on Recreational Issues by J. Beaty and C. Starks• Review of Preliminary February 2018 Black Sea Bass Recreational Harvest Estimates by C. Starks
<p>Board actions for consideration at this meeting</p> <ul style="list-style-type: none">• Provide guidance on Draft Alternatives for Framework/Addendum on Recreational Issues

7. Other Business/Recess

Caitlin Starks

From: captophook@aol.com
Sent: Monday, February 12, 2018 3:55 PM
To: Caitlin Starks
Subject: Fwd: RE: Shameful BSB Managing

Hi Caitlin I met you at N.Y. MEETING BSB. If you would PLEASE put this comment in the files.

Thank you
Steven R Witthuhn.

From: bmuffley@mafmc.org
To: captophook@aol.com
Sent: 2/12/2018 10:20:18 AM Eastern Standard Time
Subject: RE: Shameful BSB Managing

Hi Steve

Thanks for the email and phone call. Even though we just talked, sending this so you know that I got your email. I will add this to the Council comments page.

Have a good one.

Brandon

From: captophook@aol.com [<mailto:captophook@aol.com>]
Sent: Monday, February 12, 2018 10:00 AM
To: Muffley, Brandon <bmuffley@mafmc.org>
Subject: Shameful BSB Managing

I listened to the last Commission Board meeting webinar, on the Black Sea Bass regulatory process. It was nothing short of (legal) organized crime. the management process, in my opinion, has lost it's credibility in managing a "rebuilt stock". Those of us that listened in on the webinar, heard the Northern Region states (NY-CT-RI-MA) now have the deck stacked against them. The vote was stacked, when it came time to vote on a motion for the whole region. The stock has definitely moved north along the coast to the northern region.

With the current path of management, I can assure you that NON-COMPLIANCE will continue to flourish out of control, based on the availability of fish the upcoming season. My job, as a New York state advisor in the fishery management process, is to instill a belief in working within the process for the recreational fishermen and the For-Hire sector in order to maintain sustainable fish stocks.

The methodology used for setting the Black Sea Bass allowable catch, MUST BE REVIEWED in order for fishery management to claim, they have and use the BEST SCIENCE for setting quotas, is no longer believable. All fishermen are asking for is an HONEST interpretation of National Standard One:..."the optimum yield from each fishery for the United States fishing industry". We ask for a fair and equitable use of the resource. "We the people" are experiencing an over managing of the resource, and in turn, "we the people" see and experience on the water what is essentially a rebuilt fishery, being managed poorly by the Mid-Atlantic council. The matter of managing the fish where they WERE in the south rather than where they ARE in the north. By looking backward rather than forward, ASMFC is forcing the states with the fish to reduce landing, while allowing states where the Biomass is lower to increase harvest, which is nonsensical on its face.

Respectfully

Steven R Witthuhn

Charter Boat Captain

New York MRAC member

AP BSB MAFMC

-----Original Message-----

From: Brian Marks [<mailto:bkm072@gmail.com>]

Sent: Monday, April 16, 2018 2:12 PM

To: info <info@asmfc.org>

Subject: sea bass

fishing 30 years more now then ever cut the baloney let people enjoy the great outdoors



**NORTH CAROLINA MARINE FISHERIES COMMISSION
DEPARTMENT OF ENVIRONMENTAL QUALITY**

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ALISON WILLIS
Harkers Island

March 28, 2018

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

Dear Mr. Beal:

I am writing on behalf of the N.C. Marine Fisheries Commission regarding the amendment to the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan that primarily addresses the commercial summer flounder fishery. The summer flounder fishery has been a very important component of the state's commercial fishing industry for the last several decades. In 2016, North Carolina's commercial fishery landed 2,071,089 pounds of summer flounder with a dockside value of \$8,238,703. The summer flounder trawl fishery accounts for nearly all of the commercial summer flounder landings in North Carolina, and a total of 266 flounder trawl trips from 97 vessels landed summer flounder in our state in 2016.

The commercial allocations issue in this amendment is of utmost concern to the commission. North Carolina has the largest allocation of the commercial summer flounder quota based on its historic landings, and shore-based infrastructure and businesses were developed to support the state's commercial summer flounder fishery. We understand that the amendment is still under development, so we ask that proposed management measures concerning allocation include a broad range of options that considers the historic fisheries of the affected states.

Thank you for keeping this request in mind as the amendment to this plan is being developed and please know how much we appreciate the work you do on behalf of our Atlantic Coast fisheries.

Sincerely,

A handwritten signature in cursive script that reads "Sammy Corbett".

Sammy Corbett, Chairman
N.C. Marine Fisheries Commission

cc: Steve Murphey, Director, N.C. Division of Marine Fisheries
N.C. Marine Fisheries Commission



Summer Flounder, Scup, and Black Sea Bass Recreational Management Framework and Addendum

Briefing Materials for April 30, 2018 Joint Meeting of the Mid-Atlantic Fishery Management Council and ASMFC Summer Flounder, Scup, and Black Sea Bass Board

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Draft Framework/Addendum Alternatives

The Mid-Atlantic Fishery Management Council (Council) and the Atlantic States Marine Fisheries Commission (Commission) staff propose the draft alternatives in Table 1 for the recreational management framework and addendum, based on input from the Fishery Management Action Team (FMAT), the Council's Demersal Committee, and a subset of the Commission's Summer Flounder, Scup, and Black Sea Bass Board (the Board). Specific considerations from the FMAT, Demersal Committee, and Board sub-group are described in more detail in the next section.

Table 1: Draft framework/addendum alternatives proposed by staff.

- **Alternative set 1: black sea bass conservation equivalency**
 - Alternative 1.A: no action (conservation equivalency cannot be used for black sea bass)
 - Alternative set 1.B: update the FMPs to allow conservation equivalency for black sea bass
 - Alternative 1.B.i: black sea bass conservation equivalency using the current summer flounder conservation equivalency process
 - Alternative 1.B.ii: black sea bass conservation equivalency using a similar process as summer flounder, with one or more of the following modifications:
 - Conservation equivalency rollover (when appropriate)
 - Joint Council and Board determination of state/regional allocations of RHL (vs. allocations developed through Board process as is current practice)
 - Manage to the ACL rather than the RHL
- **Alternative set 2: Block Island Sound transit provisions** (potentially Council only)
 - Alternative 2.A: no action (no transit provisions)
 - Alternative 2.B: Block Island Sound transit provisions
 - Which vessels?
 - Recreational only
 - Commercial and recreational
 - Which measures?
 - Season
 - Bag
 - Size
- **Alternative set 3: recreational slot limits** (Council only)
 - Alternative 3.A: no action (slot limits cannot be used in federal recreational summer flounder, scup, or black sea bass fisheries)
 - Alternative 3.B: modify the Council's FMP to allow use of a maximum size limit for recreational summer flounder, scup, and black sea bass fisheries (would allow for slot limits, split slot limits, trophy and guppy fish measures, and other size limit configurations requiring a maximum size)

Summary of FMAT, Demersal Committee, and Board Sub-Group Discussion of Draft Alternatives

The FMAT met in February 2018 to discuss this framework/addendum. The Council's Demersal Committee and a sub-group of the Board met in March 2018. Full summaries of these meetings can be found at: <http://www.mafmc.org/actions/sfsbsb-recreational-management-fw>.

Black Sea Bass Conservation Equivalency Alternatives

The Council and Commission's Summer Flounder, Scup, and Black Sea Bass Fishery Management Plans (FMPs) require uniform coastwide (state and federal waters) measures for the recreational black sea bass fishery; however, for the past several years, the Commission has used a series of addenda to allow temporary deviations from this requirement through an ad-hoc regional management approach.

Under the current process, the Council and Board agree to federal waters measures each year. Individual states or regions work through the Commission process to develop measures for state waters. For 2018 (Addendum XXX), the Commission used a combination of historical harvest and exploitable biomass information from the latest stock assessment to allocate the coastwide recreational harvest limit (RHL) among three regions: Massachusetts through New York (allocated 61.35% of the coastwide RHL), New Jersey (30.24%), and Delaware through North Carolina, north of Cape Hatteras (8.41%). The states within each region will cooperatively develop recreational measures designed to achieve, but not exceed, their regional RHL allocation. Each region will establish a standard set of measures, with each state in the region afforded the flexibility to adjust their measures up to one inch in minimum size and three fish in possession limit. The Board approved these provisions of Addendum XXX for use in 2018, with the possibility of extension into 2019.

Under the draft no action alternative for conservation equivalency (**alternative 1.A**), the ad-hoc regional management approach would likely continue to be used to set recreational measures for black sea bass in state waters and the Council and Board would set preferred federal water measures. The details of how this is carried out may vary year to year. The Board would also have the option of discontinuing the use of ad hoc regional management and reverting to uniform coastwide measures.

Alternative 1.B.i proposes establishing a process for black sea bass conservation equivalency based on the process currently used for summer flounder. Under this process, the Council and Board decide each year whether to use coastwide measures or conservation equivalency. If they agree to conservation equivalency, they must agree on a set of non-preferred coastwide measures consisting of a minimum fish size, possession limit, and season that, if implemented on a coastwide basis, would constrain harvest to the RHL. They also agree to a set of precautionary default measures (described in more detail below).

Individual states or regions develop measures that, when taken as a whole, are the conservation equivalent of the non-preferred coastwide measures. An agreed upon allocation scheme forms the basis for the state/regional measures. The summer flounder allocations are written into the Commission's FMP as state targets based on the percent of 1998 recreational harvest by state. The Board has developed addenda in recent years to deviate from these allocations.

The Commission's Technical Committee reviews the state/regional proposals to determine if, as a whole, they would constrain harvest to the RHL. The Board then considers the proposals for approval, taking into account the Technical Committee recommendations. If the Board does not approve an individual proposal, that state or region may submit a revised proposal. If a state or region implements

measures which are not approved by the Board, then the precautionary default measures should be enforced in that state or region. The precautionary default measures are intended to be restrictive enough to deter states/regions from implementing measures which are not approved through the conservation equivalency process.

After reviewing and approving the state/region proposals, the Board then submits a letter to NMFS certifying that the combination of state and regional measures is expected to constrain harvest to the RHL. NMFS then either approves or rejects the combination of proposals. If approved, NMFS waives the federal waters measures (i.e. the non-preferred coastwide measures) in favor of the state or regional conservation equivalency measures. Federally-permitted vessels and vessels fishing in federal waters are then subject to the regulations in the states where they land their catch.

Alternative 1.B.ii proposes to use a similar process to that described above, but with one or more modifications. Specific modifications (each of which are described in more detail below) discussed by the FMAT, Committee, and Board sub-group include conservation equivalency roll over, joint Council and Board determination of state/regional RHL allocations, and managing to the annual catch limit (ACL) rather than the RHL.

Conservation equivalency rollover: The FMAT, the Demersal Committee, and the Board sub-group agreed that it could be beneficial to allow conservation equivalency to roll over from year to year, which is not possible under the current federal summer flounder regulations. If conservation equivalency rolled over from year to year, NMFS would not need to go through the rulemaking process to waive the federal waters measures each year. The Committee and Board sub-group supported the use of conservation equivalency roll over (when appropriate) for both black sea bass and summer flounder.

The Council and Board would still need to review the non-preferred coastwide and precautionary default measures each year to ensure that the fishery would be constrained to the appropriate management target (i.e. a single-year ACL or RHL, see pages 7-11). Given the timing of data availability from the Marine Recreational Information Program (MRIP), the Council and Board would still need to review projected fishery performance in December and final recreational estimates early in the next year.

For conservation equivalency to roll over from one year to the next, the non-preferred coastwide and precautionary default measures would need to be appropriate for the ACL or RHL in both years. In the future, the non-preferred coastwide and precautionary default measures could be crafted with this flexibility in mind. The Committee and Board sub-group requested that staff examine recent summer flounder recreational fishery performance in relation to the non-preferred coastwide and precautionary default measures to determine how often conservation equivalency rollover could have been possible in the recent past if the regulations had allowed for it. The information included in **Appendix 1** suggests that rollover would have been possible in multiple years.

Under the current process for summer flounder, conservation equivalency expires at the end of the year, but the federal waters measures are not waived until the spring, after NMFS receives a letter from the Commission certifying that the combination of state and regional measures will constrain harvest to the RHL. This means that from January 1 until NMFS completes the rule-making process to waive the federal waters measures, the non-preferred coastwide measures from the previous year are technically in place in federal waters. This not only creates the potential for confusion, but can also create a situation where federal waters measures are more restrictive than state waters measures.

Managing to the ACL or RHL: The summer flounder conservation equivalency regulations specify that management measures must constrain harvest to the RHL. The black sea bass conservation equivalency regulations could be written to specify that measures must constrain catch to the ACL, rather than constraining harvest to the RHL. The Council and Board have expressed interest in evaluating measures based on the ACL rather than the RHL (see pages 7-11).

Joint allocation decisions: The FMAT, Committee, and Board sub-group discussed the possibility of the Council and Board jointly deciding on state or regional recreational allocations under black sea bass conservation equivalency. Summer flounder RHL allocations under conservation equivalency are not included in the Council's FMP and the Council does not have a formal role in the decision-making process for these allocations. An FMP amendment would likely be needed to add conservation equivalency allocations to the Council's FMP.

There was disagreement among Committee and Board sub-group members as to whether this framework/addendum should include an alternative for conservation equivalency allocations to be decided upon jointly by the Council and Board. Concerns were expressed about the balance of representation among the states between the Council and Commission. Massachusetts, Connecticut, and Rhode Island do not have voting members on the Council. Those states would not have equal voting power with mid-Atlantic states if allocations were decided jointly between the Council and Commission. In addition, there was some concern that adding the Council to the decision-making process would add complexity to and prolong the rule-making process for allocation changes.

The Board adopted black sea bass RHL allocations for 2018, with the possibility of extension into 2019, through Addendum XXX. However, the states of Massachusetts through New York have appealed this decision. MRIP plans to release a revised time series of recreational harvest estimates during the summer of 2018. The NEFSC currently plans to carry out a black sea bass operational assessment using the revised MRIP time series in early 2019. The revised MRIP estimates and the operational assessment could have implications for allocations based on historical harvest. The FMAT recommended that the Council and Board wait until after the results of the operational assessment are available to consider new allocation schemes under conservation equivalency.

General Conservation Equivalency Recommendations

The FMAT, Demersal Committee, and Board sub-group agreed that it would be beneficial to streamline the conservation equivalency process and decrease the amount of time needed to develop, approve, and implement state waters measures and waive federal waters measures.

The FMAT recommended that the Council and Board focus on updating the FMPs to allow conservation equivalency to be used in a future year, rather than crafting measures to implement conservation equivalency in 2019. However, the Committee and Board wished to retain all options for consideration for use in 2019 at this point in time.

Under the current schedule for this action (**Appendix 2**), NMFS will not be able to approve the use of black sea bass conservation equivalency until spring 2019 at the earliest. Therefore, if the Council and Board wish to use black sea bass conservation equivalency in 2019, they would need to approve a set of backup measures to be implemented if NMFS does not approve conservation equivalency or if conservation equivalency cannot be implemented by the start of the 2019 fishing season.

Table 1 does not include options for use of black sea bass conservation equivalency in 2019 because this could be achieved through the normal recreational specifications process (assuming that NMFS approves use of conservation equivalency through this framework/addendum). However, the current action timeline, combined with revisions to MRIP data which will impact allocation discussions, means that implementing conservation equivalency for 2019 may not be feasible.

One Committee member said he preferred a state-by-state system to a regional system for black sea bass conservation equivalency. This is possible under the current summer flounder conservation equivalency regulations and would be allowed for under alternatives 1.B.i and 1.B.ii as summarized in Table 1.

Block Island Sound Transit Provision Alternatives

Alternative set 2 includes alternatives related to transiting Block Island Sound. Under current regulations (**alternative 2.A**), when scup and black sea bass recreational fisheries are closed in federal waters but open in state waters, vessels may not transit federal waters with scup or black sea bass caught in state waters. This has been problematic in Block Island Sound during the September 22 – October 21 black sea bass federal waters closure in recent years. State waters in Rhode Island, Connecticut, and New York are open to black sea bass fishing during that time.¹ Anglers fishing in state waters around Block Island must pass through federal waters to return to the mainland. If they retain any black sea bass, they are in violation of the federal regulations while they pass through federal waters, even if those fish were legally caught in state waters. This has not been an issue for summer flounder as federal waters regulations for summer flounder are waived under conservation equivalency. It has also not been an issue for scup in recent years as the federal waters scup season has been open year-round since 2012.

Alternative 2.B would allow vessels to transit federal waters in Block Island Sound with summer flounder, scup, or black sea bass caught in state waters on board. It is possible that these changes could be implemented through the Council's FMP without a complementary change to the Commission's FMP. The existing transit provisions for striped bass could be used as a model to define the transiting area. These regulations state that "it is unlawful for any person to...Possess any Atlantic striped bass in or from the EEZ, except in the following area: The EEZ within Block Island Sound, north of a line connecting Montauk Light, Montauk Point, NY, and Block Island Southeast Light, Block Island, RI; and west of a line connecting Point Judith Light, Point Judith, RI, and Block Island Southeast Light, Block Island, RI. Within this area, possession of Atlantic striped bass is permitted, provided no fishing takes place from the vessel while in the EEZ and the vessel is in continuous transit" (50 CFR 697.7 (b)).

Instituting such transit provisions requires a simple change to the FMP and the regulations. Other FMPs would need to be updated if these provisions were to address additional species besides summer flounder, scup, and black sea bass. The FMAT recommended that this action consider only adding these changes to the Summer Flounder, Scup, and Black Sea Bass FMP. As other FMPs are modified for other purposes, similar transit provisions could easily be added for other species.

The FMAT recommended that, for ease of enforcement, these transit provisions address only recreational fisheries in Block Island Sound and only situations where federal waters are closed and state waters are open (i.e. not situations where the federal waters minimum fish size or bag limit is more restrictive than in state waters).

¹ With the exception that in 2017 Rhode Island closed their state waters fishery during the fall federal waters closure.

The Committee and Board sub-group requested that alternative 2.B also consider situations where the recreational bag or minimum size limit is more restrictive in federal waters than in state waters. The FMAT advised against this as it would be more complicated for enforcement than simply addressing situations where federal waters are closed and state waters are open.

The Committee and Board sub-group requested that similar provisions also be considered for commercial fisheries. Commercial black sea bass and summer flounder fisheries are managed on a state-by-state basis with no federal seasons or possession limits; thus, conflicting regulations are generally not an issue for individuals fishing under federal permits. However, state-only commercial permit holders are currently not permitted to transit Block Island Sound with summer flounder, scup, or black sea bass in excess of the recreational possession limit on board. The FMAT has not yet discussed the potential implications of applying these transit provisions to both commercial and recreational fisheries.

Slot Limit Alternatives

Alternative set 3 includes alternatives related to recreational slot limits. Currently, the Council may not use slot limits as a management tool for summer flounder, scup, or black sea bass as the Council's FMP does not allow for specification of a maximum fish size (**alternative 3.A**). Slot limits may be implemented through the Commission process; thus, they may be implemented for summer flounder by states or regions through conservation equivalency, or for black sea bass and scup for state waters measures only.

Under **alternative 3.B**, the Council's FMP would be modified to allow specification of a maximum fish size. This would allow for use of regular slot limits, split slot limits, and trophy fish. A complementary alternative is not needed in the Commission's addendum as slot limits can already be used through the Commission process.

A maximum size may not be desired for scup. In addition, some Committee and Board members cautioned that slot limits may not be appropriate for black sea bass given concerns about barotrauma for larger fish, which could be discarded at higher rates under certain slot limits.

Given the timing of this action, if the Council and Board wish to use slot limits in 2019, they would need to approve a set of backup measures in case NMFS does not approve adding the option for a maximum size to the FMP or if this change is not implemented by the start of the 2019 fishing season. Table 1 does not include options for use of slot limits in 2019 because this could be achieved through the normal recreational specifications process (assuming that NMFS approves use of a maximum size through this framework/addendum).

The Monitoring and Technical Committees have analyzed slot limits in the past. Their analysis and recommendations should be revisited if the Council and Board wish to consider use of specific slot limits in a given year. For example, given the current status of the summer flounder stock (i.e. biomass is below the target and overfishing is occurring) and resulting low RHLs in recent years, a slot limit would need to be very narrow to prevent RHL overages. Black sea bass spawning stock biomass is currently more than double the biomass target; therefore, black sea bass may be a better candidate for slot limits than summer flounder at this point in time.

ACL Evaluation Issue (Not Currently Included in Framework/Addendum)

Under current practice, recreational management measures for summer flounder, scup, and black sea bass are developed and modified based on a comparison of harvest to the RHL. The Board (through Addendum XXX) and the Council (as stated at their February 2018 meeting) are considering moving towards evaluating and modifying measures based on a comparison of catch to the ACL, rather than harvest to the RHL. The intent behind this change is to better address total mortality (i.e. harvest and dead discards) compared to the current process.

The Council and Board have not approved this issue for inclusion in the recreational management framework/addendum; however, it could have implications for the black sea bass conservation equivalency alternatives.

Depending on how this change is configured, FMP and regulation changes may not be necessary. However, a Commission Technical Addendum with associated public hearings may still be warranted. The current black sea bass and scup regulations require that recreational management measures ensure that the recreational ACL (not the RHL) is not exceeded. The summer flounder conservation equivalency regulations, however, state that measures must constrain harvest to the RHL. The black sea bass conservation equivalency alternatives considered through this framework/addendum could require measures that constrain harvest to the ACL, rather than the RHL.

Greater clarification on the Council and Board's intent is needed. For example, it is not clear if the intent is for recreational measures to be designed to achieve the ACL, or if they should continue to be based on the RHL, with the ACL taken into account when evaluating the performance of the measures. Table 2 includes examples of options which could be considered. In addition, it is not clear if the Council and Board intend for this change to apply only to black sea bass, or also to the other species in the FMP.

As previously stated, under the current process, recreational management measures are designed to ensure that harvest does not exceed the RHL. Late in year 1, projected year 1 harvest is compared to the year 2 RHL. This is re-evaluated early in year 2 when preliminary harvest estimates for all of year 1 are available. If year 1 harvest is significantly over or under the year 2 RHL, then the recreational management measures are modified to reduce or increase harvest to achieve but not exceed the year 2 RHL.

The timing of availability of discard estimates would be problematic if management measures were evaluated based on catch compared to the ACL, rather than harvest compared to the RHL. MRIP provides estimates of live discards in numbers of fish. Some of these fish are assumed to die after being released. Only dead discards and landings count towards the ACL, which is specified in pounds. NEFSC stock assessment scientists translate the MRIP live discard estimates in numbers of fish to dead discards in weight using the length distribution of recreational discards from MRIP party/charter sampling and other programs, length/age/weight relationship data, and an assumed 10% or 15% discard mortality rate, depending on the species. **Appendix 3** describes this process in more detail.

If recreational management measures were evaluated against the ACL, rather than the RHL, then discards in weight would be needed to estimate catch in year 1 for comparison with the year 2 ACL when drafting year 2 management measures. Estimates of discards in weight in year 1 are typically not available until mid-year in year 2 as they must be calculated based on final year 1 MRIP discard

estimates and other data which are typically not available until mid-year in year 2. Therefore, any necessary modifications to the year 2 measures due to year 1 catch that is significantly higher or lower than the year 2 ACL could not be implemented until late in year 2 or at the start of year 3. This is a notable time lag compared to the current process.

Addendum XXX states that if the ACL is exceeded, catch will be evaluated against a three-year moving average of the ACL. States/regions would develop proposals to reduce harvest in the following year if catch exceeds the three-year average ACL. It should be noted that in every year since 2012, recreational black sea bass catch exceeded both the ACL and the three-year moving average ACL (where the average includes the current year and the two prior years; Figure 1). Under this approach states/regions would still need to constrain catch to a given year’s ACL, given current FMP requirements. However, a three-year moving average of the ACL could be used to provide rationale for why a given year’s ACL won’t be exceeded. Clarification is needed on which three years would be used to calculate the ACL moving average. It may be worth also considering a comparison of three years of catch to three years of the ACL. This would align with the current process for determining if recreational accountability measures (AMs) are triggered (i.e. the previous three complete years of catch is compared to the average of the previous three years of ACLs).

In the future, if the SSC uses a multi-year averaging approach to recommend ABCs, then the ACL averaging approach described above may not be able to be used as the single-year ACLs would already be based on an average.

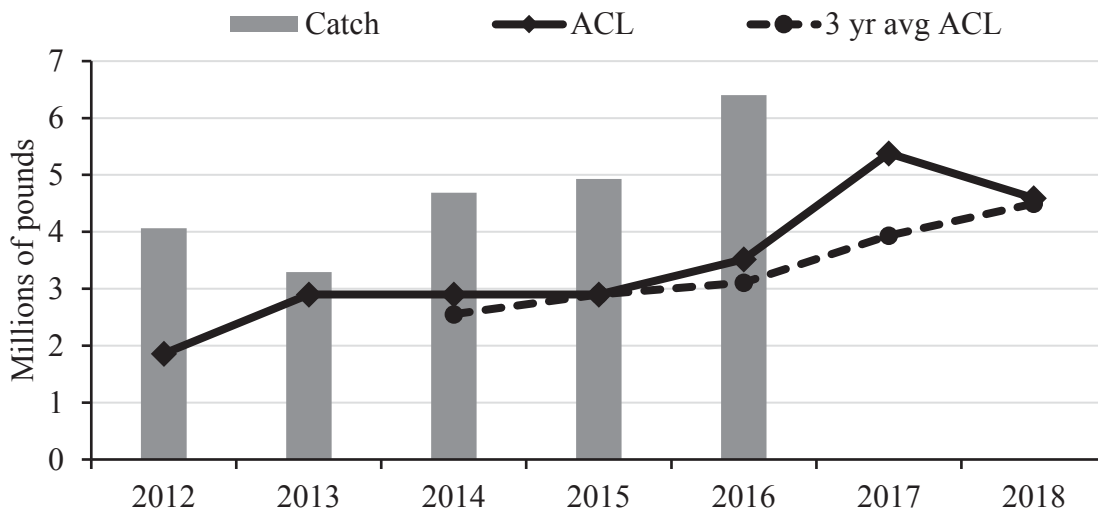


Figure 1: Recreational black sea bass catch, ACLs, and three-year moving average ACL, 2012-2018. Catch values are from the 2017 data update provided by the Northeast Fisheries Science Center.

Several challenges regarding managing to the ACL, rather than the RHL, are worth emphasizing. For example, some Committee and Board members cautioned that managing to the ACL would disadvantage northern states, given regional differences in the availability and size distribution of black sea bass. Some Council and Board members have expressed an interest in using information from the 2016 black sea bass benchmark stock assessment to manage the northern region (north of Hudson Canyon) differently than the southern region (Hudson Canyon through Cape Hatteras), for example,

with different fishing mortality and biomass targets. This could help address concerns about differences in availability and size distribution among the northern and southern states; however, this type of regional management is not currently feasible given the way the stock assessment is configured (see **Appendix 4** for more information).

In addition, concerns regarding the accuracy and precision of data used in the current process, as well as challenges with the timing of the current process, would be exacerbated if measures were evaluated based on the ACL because discard information would need to be considered. Recreational discards are much more difficult than landings to accurately estimate, in part because they are largely based on self-reported angler data (see **Appendix 3** for more information). In addition, dead discard data in weight for one year are typically not available until at least June of the next year. Preliminary harvest data can be used to project harvest for the full year late in that same year. Final harvest estimates for the full year are typically available the next spring. Given the data needed to estimate dead discards (i.e. MRIP live discard estimates, discard length distributions from a variety of programs, and age/weight/length relationship data from a variety of sources), dead discards in weight cannot be projected prior to the year's end as accurately as harvest.

Addendum XXX also specifies that, if the approach of evaluating measures based on the ACL is used, significant improvements need to be made in: 1) Biological sampling (length and weight), 2) Reduction in refusal rates of dockside MRIP intercepts/interviews, 3) Discard composition information (i.e. reason discarded, length), 4) Reduction in discarding relative to 2010-2015, 5) Improved compliance with management measures. These topics warrant further clarification and development of guidelines for achieving sufficient progress.

In recent years, the Monitoring and Technical Committees have worked toward improving the recreational measures setting process by identifying technical approaches for considering uncertainty in the recreational data and developing alternative methods for evaluating and responding to recreational harvest estimates. For example, the Committees identified methods of evaluating and smoothing extreme outlier harvest estimates using multiple years of data to project harvest and predict how modified measures will perform. The Monitoring and Technical Committees support continued evaluation of the current process for developing recreational management measures, including consideration of developing and evaluating measures based on the ACL, rather than the RHL. This topic warrants further discussion by the Monitoring and Technical Committees.

Table 2: Potential options for evaluating and modifying recreational management measures based on the RHL and/or the ACL (not included as alternatives in this framework/addendum).

<ul style="list-style-type: none"> - Recreational management target options <ul style="list-style-type: none"> o Recreational management measures are designed to allow the fishery to achieve, but not exceed, the RHL (current practice), or o Recreational management measures are designed to allow the fishery to achieve, but not exceed, the ACL. This does not require an FMP or regulation change for black sea bass or scup, but would require a change to the summer flounder conservation equivalency regulations. - Options for evaluation and modification of management measures <ul style="list-style-type: none"> o If the RHL is the management target: <ul style="list-style-type: none"> ▪ Evaluate and adjust measures based on a comparison of harvest (or projected harvest) in year 1 to the year 2 RHL. If the year 2 RHL is greater than year 1 harvest, then measures can be liberalized to help the fishery achieve but not exceed the year 2 RHL. If year 1 harvest exceeds the year 2 RHL, then: <ul style="list-style-type: none"> • Adjust management measures to reduce harvest so the year 2 RHL is not exceeded (current practice), or • Take the ACL into consideration (proposed in Addendum XXX) <ul style="list-style-type: none"> o Consider a single-year ACL - If year 1 catch does not exceed the year 2 ACL, then modifications to the management measures are not required. If year 1 harvest exceeds the year 2 RHL, and year 1 catch exceeds the year 2 ACL, then <u>measures should be modified so harvest in year 2 does not exceed the year 2 RHL</u>, or o Compare the three-year average of catch to the three-year average ACL - If the three-year average catch does not exceed the three-year average ACL, then modifications to the management measures are not required. If year 1 harvest exceeds the year 2 RHL and the three-year average catch exceeds the three-year average ACL, then <u>measures should be modified so harvest in year 2 does not exceed the year 2 RHL</u>. o If the ACL is the management target: <ul style="list-style-type: none"> ▪ Evaluate and adjust measures based on a comparison of catch (or projected catch) in year 1 to the year 2 ACL. If the year 2 ACL is greater than year 1 catch, then measures can be liberalized to help the fishery achieve but not exceed the year 2 ACL. If year 1 catch exceeds the year 2 ACL, then: <ul style="list-style-type: none"> • Adjust management measures to reduce catch so the year 2 ACL is not exceeded, or • Compare the three-year average of catch to the three-year average ACL – If the three-year average catch exceeds the three-year average ACL, then measures should be modified so catch in year 2 does not exceed the year 2 ACL. If the three-year average catch does not exceed the three-year average ACL, then modifications to the management measures are not required.

Multi-Year Approaches to Management

The Committee and Board sub-group discussed the potential for evaluating the recreational black sea bass fishery based on multiple years of performance and multiple years of RHLs and/or ACLs, regardless of whether conservation equivalency is used. This could add efficiency to the process and could result in less frequent modifications of recreational management measures. Table 3 summarizes potential options for multi-year approaches to management for recreational summer flounder, scup, and black sea bass fisheries.

Multiple years of data are already considered in some parts of the process. For example, the Monitoring and Technical Committees consider multiple years of data to project harvest when developing management measures for the upcoming year. In addition, three years of catch and ACLs are compared when determining if recreational AMs are triggered.

The Magnuson Stevens Fishery Conservation and Management Act and the National Standard 1 Guidelines allow some flexibility in terms of multi-year approaches to management, including allowing a single-year ACL to be exceeded in certain circumstances. For example, stock status, the reason for the overage, and other details can be considered when determining whether an ACL overage necessitates implementation of an AM. However, it should be noted that the summer flounder conservation equivalency regulations require constraining harvest to a single-year RHL.

The Commission's Cobia FMP was referenced on the Committee and Board sub-group call as an example of setting measures for multiple years and modifying them only if there is a significant change in circumstances (e.g. stock status or fishery performance). Currently, the 2018-2020 cobia RHLs in the Commission's FMP are identical. States set recreational management measures with the goal of constraining average harvest over 2018-2020 to their individual RHL allocations. Single-year overages do not require changes to the management measures, as long as the three-year average harvest does not exceed the RHL allocation in a given state. Applicability of this type of management for summer flounder, scup, or black sea bass has not yet been considered in detail. However, it should be noted that the current summer flounder conservation equivalency regulations require constraining harvest in a single year to a single-year RHL. The FMP also requires that catch of all three species be constrained to the appropriate single-year ACL, thus, this approach could not currently be used if it results in a single-year ACL overage.

The Council's FMP currently allows for constant ABCs to be set for up to three years for summer flounder, scup, and black sea bass. This approach has not yet been used.

Table 3: Potential multi-year approaches to management of recreational summer flounder, scup, and black sea bass fisheries.

Already allowed under current FMPs:

- ABC averaging for constant ABCs over up to three years and thus the potential for constant ACLs, quotas, and RHLs for up to three years at a time.
- Evaluating fishery performance using multiple years of data
 - o Under current practice, the average of the most recent three complete years of recreational catch is compared to the average ACLs in those years to determine if AMs are triggered for the recreational fishery.
 - o Under current practice, when appropriate, the Monitoring and Technical Committees consider data on fishery performance in multiple past years when projecting recreational harvest in a given year when developing recommendations for recreational management measures for the following year.
 - o Under current practice, when appropriate, the Monitoring and Technical Committees evaluate recreational data for extreme outliers and use multiple years of data to adjust these outlier estimates.

FMP and/or regulation changes required:

- Cobia approach - Under the Commission's Cobia ISFMP recreational measures are set such that average harvest over three years does not exceed the RHL, which is constant over three years. The RHL may be exceeded in a single year without requiring further action as long as the three-year average harvest does not exceed the RHL. Under current regulations, this would not be possible for summer flounder through conservation equivalency because harvest must be constrained to a single-year RHL. The FMP also requires that catch be constrained to a single-year ACL, thus, this approach could not currently be used if it results in a single-year ACL overage.

Appendix 1: Summer Flounder Conservation Equivalency Rollover Potential

Demersal Committee members requested information on how often the non-preferred coastwide and precautionary default measures for summer flounder conservation equivalency could have remained the same from year to year in recent history. This question is relevant to the issue of conservation equivalency rollover. If conservation equivalency rolled over from one year to the next, assuming fishery conditions and the upcoming year's RHL allowed for it, then the non-preferred coastwide and precautionary default measures would remain unchanged and federal waters measures would continue to be waived until additional action was taken to implement changes. This could result in administrative savings and allow staff to prioritize other projects because a recreational specifications package for summer flounder would not need to be developed annually.

Determining whether or not the non-preferred coastwide measures could justifiably stay the same from one year to the next is complicated, as multiple factors are taken into account when setting them (e.g. harvest and effort trends, changes in the RHL, and availability factors such as stock trends and year class strength). Non-preferred coastwide measures must be realistically expected to constrain harvest to the RHL if implemented on a coastwide basis.

Precautionary default measures are also determined annually but are less variable from year to year as they are not as closely tied to the RHL as the non-preferred coastwide measures. Precautionary default measures simply need to be restrictive enough to deter states from not adopting acceptable conservation equivalency measures through the Board's process.

Since 2012, the non-preferred coastwide measures have generally remained similar from year to year with minor to moderate changes in 2013, 2017, and 2018. The precautionary default measures remained the same from 2012-2016 and were made more restrictive for 2017 and 2018 (Table 4).

Table 4: Non-preferred coastwide and precautionary default measures under summer flounder conservation equivalency, 2012-2018.

Fishing year	Non-preferred coastwide measures (changes from previous year in bold)	Precautionary default measures (changes from previous year in bold)	RHL (mil lb)	Reduction needed? (at time of Dec. meeting)	Notes
2012	18 inches, 2 fish, May 1-September 30	20 inches, 2 fish, May 1-September 30	8.49	0%	
2013	18 inches, 4 fish , May 1-September 30	20 inches, 2 fish, May 1-September 30	7.63	0%	
2014	18 inches, 4 fish, May 1-September 30	20 inches, 2 fish, May 1-September 30	7.01	0%	2014 start of regional management; Constant state measures 2014-2016 (except DE Bay)
2015	18 inches, 4 fish, May 1-September 30	20 inches, 2 fish, May 1-September 30	7.38	0%	
2016	18 inches, 4 fish, May 1-September 30	20 inches, 2 fish, May 1-September 30	5.42	0%	
2017	19 inches , 4 fish, June 1-September 15	20 inches, 2 fish, July 1-August 31	3.77	41%	Addendum XXVIII required 1-inch increase in size limits and reduced possession limits to achieve reduction
2018	19 inches, 4 fish, May 15-September 15	20 inches, 2 fish, July 1-August 31	4.42	0%	Collective 17% cap put on liberalization of state/regional measures

Appendix 2: Draft Timeline for Framework/Addendum Development and Implementation

Task Description	Date (all are subject to change)
Initiation	December 2017
FMAT call to develop initial draft alternatives	February 2018
Demersal Committee and Board sub-group call to discuss initial draft alternatives	March 2018
Council and Board approval of draft alternatives	April 2018
Development of draft ASMFC public hearing document	May – August 2018
AP meeting	June 2018
Monitoring Committee meeting	July 2018
Council and Board review of draft alternatives and impacts analysis; Board approval of public hearing document	August 2018
ASMFC public hearings	Fall 2018
Monitoring and Technical Committee meeting (if needed)	November 2018
AP meeting - recommendations for final action	November 2018
Demersal Committee and Board sub-group meeting - recommendations for final action	November or December 2018
Council and Board final action	December 2018 or February 2019
Finalization of framework and addendum documents; submission of EA to NMFS	Early 2019
EA revisions and resubmission to NMFS	Spring 2019
Proposed rule	Spring or summer 2019
Final rule	Summer or fall 2019

Appendix 3: Recreational Discard Estimation for Summer Flounder, Scup, and Black Sea Bass ACL Accounting

Recreational harvest estimates from MRIP include kept fish observed by MRIP samplers (referred to as catch type A) and fish that are kept, filleted, used as bait, or released dead, as reported by anglers but not observed by MRIP samplers (catch type B1). Harvest estimates (catch types A and B1) are provided both in numbers of fish and weight. Angler-reported harvest (catch type B1) in weight is estimated based on numbers of fish reported by anglers and weights recorded by MRIP samplers (the type A data). MRIP also provides estimates of live discards (catch type B2) in numbers of fish as reported by anglers (not observed by MRIP samplers). MRIP does not provide estimates of total catch (i.e. harvest plus live and dead discards) in weight.

Total dead catch (i.e. all harvest and dead discards) in weight is needed for evaluation of catch against the recreational ACL. This requires converting MRIP estimates of live discards in numbers of fish to dead discards in weight. The general methodology for this conversion is described below. The specific data inputs vary slightly by species.

First, estimated live discards in numbers of fish are combined with recreational discard length frequency data to calculate the numbers of discarded fish by length. Recreational discard length frequencies are derived from a number of sources including sub-legal lengths from MRIP landings sampling, MRIP sampling aboard party/charter boats, the American Littoral Society tagged fish database, special sampling of the New York and Massachusetts party/charter fleets, and volunteer angler surveys in Connecticut, New Jersey, Maryland, and Virginia. The weight of all discarded fish is then estimated by applying a length/weight relationship to the estimated discards by length.

Some of the fish released alive die from their injuries or from predation which would not have otherwise occurred (e.g. if the fish is disoriented or suffering from barotrauma after release). The assumed recreational discard mortality rate for a given species (10% for summer flounder, 15% for scup and black sea bass) is applied to the estimate of total live discards in weight to arrive at the estimate of total dead discards in weight.

Estimates of dead discards in weight for a given year typically cannot be calculated until at least halfway through the next year as data from most of the sources listed above are typically not available until June of the following year, at the earliest.

Annual recreational harvest estimates are available earlier in the year than discard estimates. Preliminary MRIP harvest estimates for the full year are typically available in February of the following year. Final estimates are typically available in April or later.

Recreational discards are more difficult to accurately estimate than recreational harvest. Self-reported angler data play a larger role in recreational discard estimates than harvest estimates. Self-reported data from private anglers are recorded after fishing has occurred; therefore, recall bias can be an issue. For example, anglers tend to report discarded fish in increments of five. This reduces the accuracy of the discard estimates. The number of fish that are released by private recreational anglers is not validated.

Discards make up significant proportions of total recreational catch for summer flounder, scup, and black sea bass. According to MRIP estimates, during 2007-2017, recreational live discards in numbers

of fish averaged 88% of total summer flounder recreational catch, 58% of total scup recreational catch, and 82% of total black sea bass recreational catch.

For both recreational discards and harvest, annual coastwide estimates for all modes are generally considered more accurate and precise than estimates for smaller regions and subsets of waves and modes.

Appendix 4: Utility of the Black Sea Bass 2016 Benchmark Stock Assessment in a Two-Region Management Approach

Council and Board members have questioned if information from the 2016 black sea bass benchmark stock assessment could be used to manage the northern region (north of Hudson Canyon) differently than the southern region (Hudson Canyon through Cape Hatteras), suggesting that this could help address concerns about differences in availability and size distribution between northern and southern states.

Council staff discussed the potential for the stock assessment to inform development of regional sub-unit catch advice and reference points with the lead stock assessment scientist. The information below is a summary that discussion.

The 2016 benchmark stock assessment model portioned the black sea bass stock north of Cape Hatteras, North Carolina into two sub-units (North and South with a separation at approximately Hudson Canyon) to account for the spatial differences in the data and fishery. The SAW/SARC peer review did not consider these sub-units to be separate stocks. They recommended that sub-unit fishing mortality and biomass model results be combined for the development of reference points and black sea bass catch specifications. In addition, it should be noted that a sub-committee of the SSC reviewed the Black Sea Bass Assessment Working Group's recommendation to spatially partition the black sea bass stock for developing spatial models. This sub-committee concluded the spatial separation at Hudson Canyon was appropriate for the purposes of modeling and parameter estimation; however, there was little biological justification for a split and the split did not support the development of two separate stocks.

Since both reviews indicated these sub-units do not represent unique stocks, the development of sub-unit reference points and targets to inform management is not supported by the best available science.

As such, the current stock assessment model should not be used to provide catch advice for the two sub-units. The assessment includes estimates of abundance and fishing mortality for each sub-unit. However, any regional management catch advice based on these sub-unit estimates would be uncertain and would require a number of significant caveats and assumptions be made for any possible consideration in their use. In addition, a number of allocation decisions beyond just the recreational sector would need to be considered and evaluated. For example, the current assessment is comprised of four fleets:

- North sub-unit recreational hook and line and commercial hook and line/pot
- South sub-unit recreational hook and line and commercial hook and line/pot
- North sub-unit offshore trawl
- South sub-unit offshore trawl

Each sector contributes to the total fishing mortality within a sub-unit and targets black sea bass at different times of the year with different selectivities. In addition, the offshore trawl fleet operates on a combination of north and south sub-unit fish. Therefore, allocation decisions would need to be developed across the sub-units and fleets in order to manage as two separate units.

A two-region management approach would increase the complexity of the model and the demands for finer spatial resolution of commercial catch (particularly from the offshore trawl fishery) going forward.

Retrospective patterns are present in both sub-units for multiple variables (F, SSB, total biomass) and are in the opposite direction (e.g. the North model under estimates SSB and the South model over estimates). The retrospective patterns generally canceled each other out when combined and resulted in little retrospective patterns for the total stock. These retrospective patterns, which are more pronounced in the South sub-unit, could pose significant issues when developing sub-unit catch advice.



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MEMORANDUM

April 16, 2018

To: Summer Flounder, Scup and Black Sea Bass Management Board
From: Caitlin Starks, FMP Coordinator
RE: Preliminary February 2018 Black Sea Bass Recreational Harvest Estimates

In October 2017, the Council and Board approved a motion to allow a February 2018 black sea bass recreational fishery for interested states in federal waters. Anglers were limited to 15 fish per day at a minimum size of 12.5". The projected harvest assuming participation of all states was 100,000 pounds.

The two states that opted into the February fishery were Virginia and North Carolina. Based on wave 1 landings data from 1996-2000 and 2013 they were projected to harvest 5,496 pounds and 62 pounds, respectively. Preliminary harvest estimates from the two states indicate between 4,826 and 5,206 pounds of black sea bass were harvested by Virginia anglers, and zero pounds were harvested by North Carolina anglers. Descriptions of sampling and estimation methods for each state are provided below.

Virginia Sampling and Estimation

The Virginia Marine Resources Commission (VMRC) required mandatory reporting for all black sea bass harvested during the 2018 February season. All reports were due by March 15, 2018. A total of 2,540 black sea bass were reported as kept, including the for-hire fleet. VMRC staff sampled 75 fish from 4 private recreational trips. VMRC APAIS staff also rode on 4 of the 5 party boat trips that took place. Sampling from the private vessels showed an average weight of 1.7 pounds per fish. There were a total of 21 private anglers who reported a total of 33 trips. The 4 trips sampled may not be the best representation of all 33 trips. As an alternate approach to characterizing those trips, VMRC staff reviewed the MRIP average weight (for all modes) for waves 5 and 6 for 2017. The average weight was 1.7 pounds for wave 5 and 1.9 pounds for wave 6. Applying 1.9 pounds per fish for all modes for the February fishery, Virginia harvested 4,826 pounds.

The amount of sampling for party boats was extensive compared to the number of trips taken. However, only lengths were collected on sampled fish, not weights. Therefore VMRC staff used the 2015-2017 length-weight regression from data collected by the Northeast Fisheries Science Center (NEFSC) survey for the southern region for the length samples and calculated an average weight of 2.18 pounds for the party boat samples. Applying that to the number of fish kept by the party boats, and still using the 1.9 pounds per fish for the private mode, the total estimate goes up to 5,206 pounds harvested in February.

North Carolina Sampling and Estimation

North Carolina Division of Marine Fisheries staff intended to work with charter boat captains who target black sea bass north of Cape Hatteras to collect black sea bass carcasses for age and growth samples. However, no carcasses were collected due to very low fishing effort for black sea bass (only two known trips). MRIP staff reported zero intercepts with black sea bass north of Cape Hatteras in February. Weather conditions prevented many boats from going offshore out of Oregon Inlet, which played a role in little fishing effort during February.

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