Atlantic States Marine Fisheries Commission

American Lobster Management Board

May 8, 2017: 2:45 - 5:15 p.m.
May 9, 2017: 8:00 - 10:15 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.

May 8

1. Welcome/Call to Order *(D. Borden)* 2:45 p.m.

2. Board Consent 2:45 p.m.
   - Approval of Agenda
   - Approval of Proceedings from January 2017

3. Public Comment 2:50 p.m.

4. Discussion on New England Fishery Management Council Deep-Sea Coral Amendment **Possible Action** 3:00 p.m.
   - Overview of Deep-Sea Coral Amendment Management Alternatives *(M. Bachman)*

5. American Lobster Gulf of Maine/Georges Bank Subcommittee Report *(M. Ware)* 3:50 p.m.

6. Update on Development of American Lobster Draft Addendum XXVI *(M. Ware)* 4:15 p.m.

7. Consider American Addendum XXV for Final Approval **Final Action** 4:20 p.m.
   - Review Options *(M. Ware)*
   - Public Comment Summary *(M. Ware)*
   - Committee Reports *(M. Robson, G. Moore)*
   - Consider Final Approval of Addendum XXV

8. Recess 5:15 p.m.

May 9

9. Reconvene 8:00 a.m.

10. Addendum XXV for Final Approval **Final Action** 8:00 a.m.

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

11. Consider Inconsistencies Between State and Federal Regulations 9:45 a.m.

Possible Action

- Addenda XXI and XXII Provisions in Federal Waters *(M. Ware)*
- Lobster Conservation Management Area 4 Season Closure *(M. Ware)*

12. Other Business/Adjourn 10:15 a.m.

MEETING OVERVIEW

American Lobster Management Board Meeting
Monday - May 8, 2017; 2:45-5:15 p.m.
Tuesday - May 9, 2017; 8:00-10:15 a.m.
Alexandria, Virginia

Chair: David Borden (RI) Assumed Chairmanship: 02/16	Technical Committee Chair: Kathleen Reardon (ME)	Law Enforcement Committee Representative: John Cornish (ME)
Vice Chair: Stephen Train (ME)	Advisory Panel Chair: Grant Moore (MA)	Previous Board Meeting: January 31, 2017
Voting Members: ME, NH, MA, RI, CT, NY, NJ, DE, MD, VA, NMFS, NEFMC (12 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. NEFMC Omnibus Deep-Sea Coral Amendment (3-3:50 p.m.) Possible Action

Background

- The NEFMC is currently drafting an Omnibus Deep-Sea Coral Amendment that is considering the implementation of discrete zones and/or broad depth zones in order to protect coral habitat. This action may restrict the lobster and Jonah crab fisheries. **(Briefing Materials)**
- At their April meeting, the NEFMC is scheduled to select preferred management alternatives and approve the Amendment for public comment. It is anticipated that the Council will take final action in June 2017.

Presentations

- Overview of Deep-Sea Coral Amendment and management alternatives by M. Bachman.

Board actions for consideration at this meeting

- Identify Lobster Board preferred management alternatives and recommendations to the NEFMC

5. American Lobster GOM/GBK Subcommittee Report (3:50-4:15 p.m.)

Background

- In January 2017, the Board established a Subcommittee to discuss resiliency in the GOM/GBK stock given changing environmental conditions.
- The Subcommittee met on April 13th. Discussion focused on lessons learned in the SNE stock and potential recommendations regarding future management of the stock. **(Briefing Materials)**

Presentations

- GOM/GBK Subcommittee Report by M. Ware

6. Update on Draft Addendum XXVI (4:15-4:20 p.m.)

Background

- The Board initiated Draft Addendum XXVI to improve harvester reporting and biological data collection in state and federal waters.
- The PDT met via conference call on March 29 to begin work on Draft Addendum XXVI.

Presentations

- PDT update on Draft Addendum XXVI by M. Ware

7. American Lobster Draft Addendum XXV (4:20-5:15 p.m.) Final Action

Background

- Draft Addendum XXV was initiated to address stock declines in SNE. The Board approved Draft Addendum XXV for public comment in January 2017. **(Briefing Materials)**
- Seven public hearings were conducted and comments were accepted through April 7th.
- The Law Enforcement Committee met to review Draft Addendum XXV on March 17th.
- The Advisory Panel met to review Draft Addendum on April 11th.

Presentations

- Overview of options and public comment summary by M. Ware **(Briefing Materials)**
- Law Enforcement Report by M. Robson **(Briefing Materials)**
- Advisory Panel Report by G. Moore **(Briefing Materials)**

Board actions for consideration at this meeting

- Select management options and implementation dates.
- Approve final document.

8. Recess

9. Reconvene

10. American Lobster Draft Addendum XXV Cont. (8:00-9:45 a.m.) Final Action
Board actions for consideration at this meeting • Select management options and implementation dates. • Approve final document.

11. State/Federal Regulatory Inconsistencies (9:45-10:15 a.m.) Possible Action
Background • In July 2016, NOAA Fisheries notified the Board they had suspended rule-making on trap banking in Addendum XXI and XXII until a clear picture of management in SNE was developed. The Board decided to revisit this issue following action on Draft Addendum XXV. **(Briefing Materials)** • On April 4, 2017 the Commission received a letter from New Jersey and New York requesting disparities between state and federal implementation of the LCMA 4 season closure be resolved. These inconsistencies include application of the most restrictive rule and the requirement that traps be removed from the water. **(Briefing Materials)**
Board actions for consideration at this meeting • Recommend full implementation of Addendum XXI and XXII in federal waters. • Address inconsistent regulations regarding the LCMA 4 season closure.

12. Other Business/Adjourn

DRAFT PROCEEDINGS OF THE

ATLANTIC STATES MARINE FISHERIES COMMISSION

AMERICAN LOBSTER MANAGEMENT BOARD

The Westin Alexandria
Alexandria, Virginia
January 31, 2017

These minutes are draft and subject to approval by the American Lobster 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 Addendum XXV include the proposal for *de minimis* for the states of Delaware, Maryland, and Virginia** (Page 11). Motion by John Clark; second by Mike Luisi. Motion carried (Page 12).

4. **Move that the overlap zone issue be added to Addendum XXV** (Page 12). Motion by Mark Gibson; second by Pat Keliher. Motion carried (Page 14).

5. **Move to approve Draft Addendum XXV for public comment as modified by discussion today** (Page 17). Motion by Dan McKiernan; second by Eric Reid. Motion amended.

6. **Move to Amend to approve Draft Addendum XXV for public comment as modified today and include an Option C under Section 2 to allow gauge size changes and season closures to be used either together or independently to achieve egg production increases** (Page 17). Motion by Peter Burns; second by Ritchie White. Motion carried (Page 20).

7. **Move to initiate an addendum to improve harvester reporting and biological data collection in state and federal waters. The addendum should seek to: 1) utilize the latest technology to improve reporting; 2) increase the spatial resolution of harvester data; 3) collect greater effort data; and 4) advance the collection of biological data offshore** (Page 26). Motion by Dan McKiernan; second by Steve Train. Motion approved by consensus (Page 27).

8. **Move to approve Addendum II to the Jonah Crab FMP with the following options: Issue 1, Option C (Claw Harvest Permitted Coastwide) and Issue 2, Option B (Bycatch Defined as Percent Composition)** (Page 30). Motion by Jim Gilmore; second by Mike Luisi.

9. **Move to Amend: Option C: Coastwide Small Volumetric Claw Harvest Permitted. Under this option, only whole crabs which meet the minimum size of 4.75" may be retained and sold, with the exception of a one 5-gallon bucket allowance of detached crab claws per vessel per trip which may be retained and sold. Two claws may be harvested from the same crab** (Page 31). Motion by Allison Murphy; second by Mr. McKiernan. Motion to amend fails (Page 33).

   Main Motion
   Move to approve Addendum II to the Jonah Crab FMP with the following options: Issue 1, Option C (Claw Harvest Permitted Coastwide) and Issue 2, Option B (Bycatch Defined as Percent Composition) (Page 33). Motion by Jim Gilmore; second by Mike Luisi.

10. **Move to approve Addendum II to the Jonah Crab FMP as modified today** (Page 33). Motion by Doug Grout; second by John Clark. Motion passes (Roll Call Vote: In favor – ME, NH, MA, NY, NJ, DE, MD, VA, NEFMC; Opposed – RI, CT; Abstain – NMFS). Motion carried (Page 34).

11. **Move to adjourn by Consent** (Page 37).

ATTENDANCE

Board Members

Terry Stockwell, ME, proxy for P. Keliher (AA)
Stephen Train, ME (GA)
Douglas Grout, NH (AA)
Dennis Abbott, NH, proxy for Sen. Watters (LA)
G. Ritchie White, NH (GA)
Raymond Kane, MA (GA)
Dan McKiernan, MA, proxy for D. Pierce (AA)
Sarah Ferrara, MA, proxy for Rep. Peake (LA)
Mark Gibson, RI, proxy for J. Coit (AA)
David Borden, RI (GA)
Eric Reid, RI, proxy for Sen. Sosnowski (LA)
Sen. Craig Miner, CT (LA)
Mark Alexander, CT (AA)
Lance Stewart, CT (GA)
John McMurray, NY, proxy for Sen. Boyle (LA)
Jim Gilmore, NY (AA)
Emerson Hasbrouck, NY (GA)
Adam Nowalsky, NJ, proxy for Asm. Andrzejczak (LA)
Tom Baum, NJ, proxy for D. Chanda (AA)
Craig Pugh, DE, proxy for Rep. Carson (LA)
John Clark, DE, proxy for D. Saveikis (AA)
Rachel Dean, MD (GA)
Mike Luisi, MD, proxy for D. Blazer (AA)
Joe Cimino, VA, proxy for J. Bull (AA)
Allison Murphy, NMFS
Peter Burns, NMFS

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

Ex-Officio Members

Kathleen Reardon, Technical Committee Chair

Staff

Megan Ware
Toni Kerns
Robert Beal

Guests

Bob Ballou, RI DEM
John Bullard, NMFS
Beth Carson, Mass Lobstermen Assn
Kevin Chu, NMFS
Lanny Dellinger, LCMT 2
Marty Gary, PRFC
Colleen Giannini, CT DEEP
Joseph Gordon, PEW
Zach Greenberg, PEW
Jon Hare, NMFS
Marin Hawk, MSC
Aaron Kornbluth, PEW
Wilson Laney, USFWS
Arnold Leo, E. Hampton, NY
Greg Matarones, RI Lobstermens Assn
Jason McNamee, RI DEM
Grant Moore, AOLA
Cheri Patterson, NH F & G
Michael Pentony, NMFS
Mike Ruccio, NMFS
Kate Wilke, TNC, Fairfax, VA
Chris Wright, NMFS
Darryl Young, MEFA
Rene Zobel, NH F & G

The American Lobster 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 1:02 o'clock p.m. by Chairman Dave Borden.

CALL TO ORDER

CHAIRMAN DAVID V. D. BORDEN: Let's get started. My name is David Borden; and I'm the Chair of the Lobster Board. Welcome to the January meeting of the Lobster Board.

APPROVAL OF AGENDA

CHAIRMAN BORDEN: In terms of items on the agenda, we have an agenda that has been distributed. Are there any comments, additions, deletions to the agenda as circulated? Seeing none; we'll take the items in the order that they appear.

APPROVAL OF PROCEEDINGS

CHAIRMAN BORDEN: In terms of the proceedings, does anyone care to make any comments on the proceedings? No hands up; any objections to adopting the proceedings as written? No objections; proceedings stand approved.

PUBLIC COMMENT

CHAIRMAN BORDEN: On the public comment, we have one person signed up; Beth Casoni. Beth, if you would like to come up to a microphone. Beth, just so you understand, and I think you do, this is for items which are not on the agenda.

MS. BETH CASONI: Beth Casoni; Executive Director for the Massachusetts Lobstermen's Association. At our annual weekend meeting last weekend, we had the Division of Marine Fisheries give a presentation on the trawl survey data and the importance of it. Historically there have been significant gear conflicts where trawl tows have been aborted or abandoned completely. I've tried for the past five years to get it across to our active members that this data is important to the stock assessments; and that you should really give way to the glory of Michelle. The division did a great job; I would like to thank them for coming and bringing the information forward. When they did the numbers were quite staggering. Some of the sights had a 68 percent reduction. When they saw those numbers of data being missed in the stock assessments, it was quite clear that they needed to move their gear.

We're hoping that the 2017 season will be better. I would ask if the TC could look at historically how many sites have been abandoned in trawl surveys; and the impacts to the stock assessments collectively, the Gulf of Maine, Southern New England, and Georges Bank. Given the severity of the southern New England stock, I think that information would be pertinent before any further action is taken.

CHAIRMAN BORDEN: Any comments on that suggestion? No hands up. Any objections to having the TC discuss that? No objections, then the TC has their first charge of the meeting; which I am sure they were looking forward to.

AMERICAN LOBSTER DRAFT ADDENDUM XXV FOR PUBLIC COMMENT

CHAIRMAN BORDEN: Next item on the agenda is Addendum XXV**,** and I think I'm actually going to ask Megan. We're going to go through the reports and then I'm going to come back and make a few comments, and kind of frame the issues that I think we're going to have to deal with today. Megan.

MS. MEGAN WARE: Today I'll be reviewing Draft Addendum XXV; which looks to address the stock declines in Southern New England. The board first saw this addendum in October, but since that time several changes have been made. That will be the focus of our discussion today. The ultimate question for the board is whether the

board would like to approve this document for public comment.

Just taking a step back and reminding ourselves of why we are working on this addendum. Addendum XXV was initiated in response to the 2015 Stock Assessment, which found that the Southern New England stock is at record low abundance; and in response to this information the board decided that the goal of Addendum XXV is recognizing the impact of climate change on the stock.

The goal of Addendum XXV is to respond to the decline of the Southern New England stock and its decline in recruitment, while preserving a functional portion of the lobster fishery in this area. This is our current timeline for Addendum XXV. Today the Board is reviewing the document, making any necessary changes, and considering approving it for public comment.

If it is approved for public comment, our public comment period would be from February to April, 2017. During this time we would encourage LCMTs to get together and put together preliminary proposals. At the May board meeting the Board would review the public comment and select management measures; and then about a month later we would ask LCMTs to submit final proposals on how to meet the targeted increase in egg production.

This means at the August meeting we would review and hopefully approve those LCMT proposals; and this will allow for implementation in 2018. At the October meeting the Board decided to allow for preliminary comment from industry and state and federal agencies, and we received comments from Massachusetts, Rhode Island, Connecticut, New York and NOAA Fisheries.

We then put together a subcommittee that was comprised of two PDT members and three Board members to review these comments and provide recommendations to the Board. In late December the Board did review and approve these recommended changes to Draft Addendum XXV. Throughout January the PDT has worked to incorporate the recommended changes, and I am going to go through each of the changes that have happened.

This is a list of the editorial changes that were recommended. You'll see almost all of them were included by the PDT. There was one slight alteration to the recommendation that ventless trap survey data be added to the addendum. Instead of adding ventless trap survey data, the PDT added larval survey data.

This was done because the larval survey data has a much more extensive time series; and so it shows the full decline of settlement in Southern New England. We also had several recommendations for additional management issues or management alternatives that should be added to the addendum. Anything with a green checkmark next to it has been added by the PDT. There was only one issue which was not added by the PDT, and that was a recommendation to discuss the implementation of gauge size changes in relation to interstate commerce. The Commission received advice that this document should not include issues in relation to interstate commerce; and so the PDT followed that advice. You also see there are two issues that have a black squiggly line next to it. Those have to do with the ongoing trap reductions.

I'm going to kind of take a step here and talk about those in a bit more detail. As a reminder, LCMAs 2 and 3 are currently going through a series of trap reductions. These were started in 2016. Any biological implications of these trap reductions were not included in the 2015 stock assessment.

One of the recommendations from the Board was that an issue be added; which asks whether these areas should receive credit for ongoing trap reductions as a part of this addendum. In the PDTs discussion of this issue, the PDT

decided that really what this issue is asking is what is our baseline for this addendum; or said another way what year are we considering current stock status? That would be the same year from which we're measuring increases in egg production.

The PDT went through the TCs analysis on the various management tools, and all of that analysis depends on data from the 2015 stock assessment; and the last year of data included in those analyses is 2014. As a result the PDT is proposing that 2014 serve as the baseline for Addendum XXV.

Action implemented after 2014, which produced measurable increases in egg production, counts towards the egg production target chosen by the Board. If the Board wants to use a different baseline or wants to exclude specific management tools from counting towards the egg production target; that needs to be specified to the PDT at this board meeting.

There was also a recommendation to add an issue; which would ask whether current trap reductions can be accelerated. The intent of accelerating the trap reductions would be to allow for LCMAs 2 and 3 to be able to take additional trap reductions and still meet the implementation deadline of this addendum.

In discussions with staff at ASMFC and the PDT, the PDT felt that the implementation schedule represents the final deadline for trap reductions, and if LCMAs want to implement trap reductions on a quicker schedule; they have the ability to do so; since again that implementation deadline is really that final deadline.

This is similar to other addenda where there is an implementation deadline; and states can always implement something ahead of schedule if they choose. As a result the PDT has added a sentence to the addendum which states that ongoing trap reductions can be accelerated; to allow LCMAs to take additional action in this addendum and meet the implementation deadline. I am now going to go through the issues that are included in the addendum; and the associated management alternatives.

We do now have six issues in this addendum. The first issue asks what the target increase in egg production should be. We have options ranging from 0 percent to 60 percent, with 0 percent being our status quo and the Board tasking the PDT to investigate options between 20 percent and 60 percent. The second issue asks whether management tools can be used independently to achieve the increase in egg production; and this question is prompted by the fact that there is a greatest confidence in gauge size changes to produce measurable increases in egg production. Option A says that management tools can be used independently. This means if the Board chooses a 20 percent increase in egg production, an LCMA could decide to use just a season closure to achieve that 20 percent increase. Under Option B, trap reductions and season closures must be used in conjunction with gauge size changes; and trap reductions and season closures cannot account for more than half of the increase in egg production.

Going back to that example, again if the Board chooses a 20 percent increase in egg production only a 10 percent increase in egg production could come from trap reductions and season closures. Issue 3 asks how the recreational fishery will be impacted by this addendum. Option A says that the recreational fishery must abide by all management action taken in Addendum XXV; that would include gauge size changes, season closures and trap reductions.

Option B relaxes this a bit and says that the recreational fishery must abide by gauge size changes and season closures. Then Option C further relaxes this and says that the recreational fishery must abide by gauge size changes only. Given that the recreational fishery primarily occurs in the summer months, this third option provides an alternative to maintain the recreational fishery; should a summer closure be implemented.

There is no option which completely exempts the recreational fishery from gauge size changes; and that's because if the recreational fishery is exempted from gauge size changes then there is the potential to have two sets of minimum and maximum sizes, one for the recreational fishery and one for the commercial fishery.

The PDT felt that there might be a lot of enforcement challenges if we have two sets of gauge size changes for one area. The fourth issue asks how season closures should be implemented as a result of this addendum. While removing traps from the water provides the greatest biological benefit to the stock, this issue is complicated by the fact that the lobster and Jonah crab fisheries are now jointly managed.

This means that season closures could negatively impact the Jonah crab fishery. Under Option A, lobster traps must be removed from the water. No lobsters may be harvested during a season closure. Under Option B, commercial harvesters would not be allowed to land or possess lobsters; but lobster traps could remain in the water, and species such as whelk or Jonah crab could be harvested during that closure.

Option C is kind of a further relaxation of this. It says that those with the lobster trap allocation cannot land or possess lobsters during a season closure; but lobster traps may remain in the water. Those non-trap gears which are allowed to land lobster under the bycatch limit can continue to do so.

Just as a reminder, there are 100 lobsters per day, 500 lobsters per trip bycatch allowance; and this also includes black sea bass pots. Those gear types would be allowed to continue to land under a season closure. You also notice that there are sub-options under each of the Options A, B, and C. These sub-options ask whether the most restrictive rule should apply to season closures. The reason this is prompted is that for example, if Area 2 implements a season closure in Quarter 1, and Area 3 implements a season closure in Quarter 2 that means that an Area 2/3 dual permit holder would not be allowed to fish for the first half of the year under the most restrictive rule. Sub-option 2 provides an option where the most restrictive role would not apply. Again, if we have that 2/3 dual permit holder and Area 2 implements a season closure in Quarter 1 that fisherman could continue to fish in Area 3 during Quarter 1. Our fifth issue asks about the standardization of regulations across LCMAs in Southern New England.

Just as a reminder the Board did ask the TC to weigh in on this option and the TC stated that while standardized regulations may help with the enforcement of regulations, as well as the stock assessment process; it would likely create clear winners and losers in the fishery. Option A is our status quo, so regulations would not have to be uniform across LCMAs.

Under Option B, gauge size changes and season closures would be uniform across LCMAs 4 and 5, and in Option C, gauge size changes and season closures would be uniform across LCMAs 2, 4, 5 and 6. Our last issue is where in LCMA 3 the management measures adopted in this addendum should apply.

This question is prompted by the fact that Area 3 spans both the Southern New England stock and the Gulf of Maine/Georges Bank stock. Really the intent of this addendum is to address the declines in Southern New England. Under Option A that would be our status quo, so we would maintain Area 3 as a single area.

Any management action taken in this addendum would apply throughout Area 3. Options B and C provide an opportunity to split Area 3 along the 70 west line; and this is the line that divides the Southern New England stock from the Gulf of Maine/Georges Bank stock. Option B would allow for a one-time declaration by fishermen into either the Southern New England or Gulf of Maine stock.

Option C would provide a bit more flexibility to fishermen by allowing for an annual declaration. A fisherman can annually declare into the Gulf of Maine stock and not be subject to any gauge size changes or season closures, or that fisherman can declare into the Southern New England stock, but be able to fish throughout Area 3; but be constrained to the more restrictive management measures.

Just to show this for those who are also visual learners. We have a map up here. We have a red solid line that represents the 70 west line, and that splits the Gulf of Maine stock from the Southern New England stock. Under Options B and C we would split Area 3, which is the lighter blue color; and fishermen could declare either one time or annually into either of those stocks.

We would amend trap tags to either add an E or a W, and that would signify to law enforcement where those traps are allowed to be fished. Hopefully that would help with the enforcement of these different regulations. After the comment period we also received two state proposals, and these are proposals that the Board will need to address today.

The first proposal was whether de minimis states should be exempt from management measures taken in Addendum XXV. Just as a reminder, our current de minimis states are Delaware, Maryland, and Virginia. Under Option A, de minimis states must implement all management measures adopted under Addendum XXV. Under Option B, de minimis states would be exempt from measures adopted in this document. But the states would have to meet the following criteria. They would have to close the lobster fishery in de minimis states to new entrants. They could only allow lobster permit holders of that state to land lobsters in that state; and then total lobster landings for that state could not accumulate to more than 40,000 pounds annually. We also received a proposal that proposes an Area 3 overlap.

This goes back to Issue 6, which asks where in Area 3 the management measures should be implemented. Under this proposal we would add an Option D. Again we would split Area 3 along the 70 west line, but we would have an overlap area; which is defined by 30 minutes on either side of the 70 west line.

Fishermen could elect to fish in either the eastern or western portion of Area 3, but everyone would be allowed to fish in the overlap zone. The intent of this proposal is to accommodate about a dozen fishermen who harvest lobsters on the Gulf of Maine/Georges Bank side of Area 3; but then cross over the 70 west line to harvest Jonah crab in that Southern New England portion.

Again we have a map here for the visual learners. We have the dotted line, which represents our 70 west line; and then two solid lines which represent about 30 minutes on each side of that. If a fisherman declares into the Gulf of Maine/Georges Bank portion, then that fisherman can fish in the eastern portion as well as the overlap zone.

On the other side if a fisherman declares into the Southern New England portion, they could fish in the western portion and the overlap zone. These are some of the questions that the Board needs to address today. What year should serve as the baseline for this addendum? Should an issue which discusses an exemption for de minimis states, be added to the addendum? Should an option which proposes an overlap zone in Area 3 be added to the addendum; and should this document be approved for public comment?

CHAIRMAN BORDEN: What I would like to do at this point is to take questions on the addendum and then I would like to deal with the issue of de minimis, the overlap zone, and the baseline separately. I think all of those will require motions, because all of those suggestions came in after the deadline.

I think it is appropriate to do it via motion; or at least by consensus if we have consensus. Let's start. I would ask individuals to not, well you actually you can ask any questions you want, but let's not get into a debate of personal preferences and so forth at this point; so questions on Megan's proposal. Dan McKiernan.

MR. DAN McKIERNAN: Yes, Megan, you mentioned that for the Area 3 fleet there would be an option to fish east or west; and you would declare that prior to the year. I don't see a same option for what you described earlier as dual permit holders, somebody who had an Area 2 and Area 3 allocation. Wouldn't it make sense to give that vessel that same kind of option saying for this year I'm going to be an Area 3 boat or an Area 2 boat; and live by whatever rule they chose? I don't think it's in the document, or if it is it wasn't presented that way.

MS. WARE: Yes we can clarify that it would apply to dual permit holders as well.

MR. McKIERNAN: They could declare at permit renewal time whether they wanted to sort of surrender for the season the right to fish in one of the two areas; if they had multiple LCMA trap allocations.

MS. WARE: Yes I think the intent is anyone who holds an Area 3 permit would be able to declare either one time or annually; depending on the option chosen.

CHAIRMAN BORDEN: Other questions for Megan. Doug.

MR. DOUGLAS E. GROUT: Just on that picture that you have up there, clearly the overlap on that picture goes up into Area 1; and I assume that is just a product of not being able to cut it off at Cape Cod, correct?

MS. WARE: That's just my poor painting skills, yes.

CHAIRMAN BORDEN: Mark Gibson.

MR. MARK GIBSON: Megan, I just wanted to be clear the Board has had a number of disagreements about the merits of trap reductions; in terms of reducing exploitation. There have been counterpoints raised to written testimony from industry. I just want to make sure that the way the action is written right now, there is an option for trap reductions after the baseline period to be determined that could count independently against the exploitation reductions. They could be combined with other factors; but there is an option for them to stand independent.

MS. WARE: Yes that is an option in the document.

CHAIRMAN BORDEN: Other questions, anyone? Peter and then Emerson.

MR. PETER BURNS: I'm just curious about the overlap proposal and wondering if the Law Enforcement Committee had a chance to consider that and discuss any issues that might come up with respect to enforcing those management measures. I know that the document talks about consistency and the options for consistency throughout the area, so I'm a little confused about how this option would fit in.

MS. WARE: The Law Enforcement Committee has not had a chance to review that. That would have to be during the public comment process.

MR. EMERSON C. HASBROUCK: Thank you for your presentation, Megan. I've got a couple of questions, one is I'm wondering how actual egg production is going to be determined going forward. That is my first question.

MS. WARE: I'm trying to flip to the page, but at the end of the addendum it does talk about trying to measure the impacts or achievements, we'll say of the addenda. Much of the TC analysis was looking at changes in exploitation and seeing how that relates to egg production; so I presume we would have to do it that way.

But we can also look at some of the other surveys to see if it is an effective management tool.

MR. HASBROUCK: Follow up on that. Yes well that is what prompted my question was reading that section on monitoring. My question still is, how is actual egg production going to be determined going forward? Is that just going to be an output from a model? What is the actual means of determining what egg production is?

MS. WARE: I believe it would be outputs from model.

CHAIRMAN BORDEN: Other questions.

MR. HASBROUCK: I've got a second question, Mr. Chairman.

CHAIRMAN BORDEN: You get a third bite of the apple. Go ahead.

MR. HASBROUCK: My other question related to Figure 2 in the document, which is a little confusing. I have two questions relative to that figure. The first question is where are we currently? I'll say currently, whatever the latest year data that we have? Kind of where are we on that graphic? That's the first question.

MS. WARE: We are just so everyone knows what we're talking about. We're looking at the relationship between model-based spawning stock biomass and recruits. We are at the bottom of that graph. There is an 11; that is where we are at now. But that is the last year of the assessment; that's where we were at.

MR. HASBROUCK: Okay so we don't have anything more current than 2011 on that then, okay. Then the second part of that is what I'm seeing on Figure 2 is that there really is no relationship between recruitment and spawning stock biomass or egg production. Is that correct?

MS. WARE: You're correct in the sense that spawning stock biomass has been fairly constant but recruitment has dropped.

CHAIRMAN BORDEN: Dan, do you want to respond?

MR. McKIERNAN: I think the overlap zone might be an error. I think it is supposed to be drawn at the 70 line and go on either side of the 70 line; but Megan, I think as you've drawn it, it is west of that. Just so we're clear.

CHAIRMAN BORDEN: My suggestion is to staff have the discretion. We know what the intent is. Staff will have the discretion to make the line in the correct spot. Does anyone object to that? If not, Emerson back on your question. Do you want to follow up on that or get a response to it?

MR. HASBROUCK: On what Dan just raised, no.

CHAIRMAN BORDEN: On Figure 2. You had two questions on 2.

MR. HASBROUCK: Yes I asked both of those. But I have another question, but I don't want to dominate this conversation, so if you want to come back to me later after everybody else has asked questions; I'll be happy with that.

CHAIRMAN BORDEN: Any other questions? Peter.

MR. BURNS: I was going to bring this issue up when we talked about the Plan Development Team report on the trap reductions, but since Emerson brought it up I thought it makes a good point; and if we're just going to be talking about this addendum with respect to those questions that were on the previous slide, then I think we should begin the discussion on some of the management options that are offered in the addendum.

I was just curious, Emerson made the point of how are we going to quantify egg production? I think that is a very, very good question. We've got two measures here, we've got seasonal closures and gauge increases that have a fairly good way to be measured, and the Technical Committee has felt very confident in being able

to measure egg production based on those two things.

Not so much with trap reductions. I'm looking at the management options in the addendum that look at, and I think it's Section 2. Would those be predicated on active trap reductions or would it be something else? Would they be permanent active reductions, because keep in mind that the Technical Committee's assessment assumes you get a 13 percent reduction in egg production with a 25 percent trap reduction; if it is active traps that are taken out of the fishery.

We know that when those trap reductions are applied, at least in the last two years; a lot of that effort has been latent effort. I'm just curious as to how that is going to be characterized. If we're actually going to be assigning numbers to trap reductions and these other measures that are going to have to add up, ultimately to whatever egg production target we're choosing, we need to know what those numbers are. Right now I don't see how we could measure trap reductions.

CHAIRMAN BORDEN: That's a little bit of a statement as opposed to a question.

MR. BURNS: My question, I think I said it at the beginning was; do these management options are they going to apply to active traps, and is it going to assure that that active effort is not going to be replaced, and that those reductions are going to be permanent?

MS. WARE: Right now the trap reductions are written to apply to total trap allocations.

CHAIRMAN BORDEN: How is the trap-reduction analysis done? Was that also done based on active or allocated traps?

MS. WARE: The analysis, if I understand it correctly from Burton, was looking at the relationship between changes in exploitation and the total traps allocated; and trying to find a relationship between that. That is how they got to the change in exploitation and a change in egg production.

CHAIRMAN BORDEN: I guess the important point to answer your question; the analysis was done based on allocated traps. Peter. We're going to save the debate. If you've got questions we'll take the questions. But I'm going to come around to the debate point. Mark.

MR. MARK ALEXANDER: Megan, has any analysis been done to determine if the traps or the permits that have been involved in a transfer or fished either in the year of the transfer or the previous year, to help discern whether those traps are actually active or latent?

MS. WARE: I don't have a good answer to that question. I'll say at this point I don't know of analysis that has done that. But we could try and investigate it.

CHAIRMAN BORDEN: We've got Ritchie White then Dan.

MR. G. RITCHIE WHITE: Megan, the PDT was not in consensus on their decision on trap reduction in relation to egg production. It would be helpful for me when this happens and we're provided with two different results, two different reports; it would be helpful for me to have a vote, because if it's a 4 to 3 vote then I would tend to weigh both those inputs equally. If it was 7 to 1 vote let's say, then I may weigh those quite differently than a 4 to 3 vote. If you could help in that regard that would be helpful to me.

MR. McKIERNAN: The question is would it be useful if the Commonwealth of Mass and let's say the state of Rhode Island that has data on these permit holders tabulate the number of permits, the number of maximum traps fished, and the number of trap hauls in advance of the final action in May; so that we can put this issue to rest?

I understand the concerns that reducing allocated traps doesn't actually save lobsters, if

there is a lot of compensation going on. But the big trap cut was last year and we are just now getting the cash reports in so that we can tabulate the net result of all of that. I'm pledging to this board that we will in Massachusetts deliver on that question. Maybe that would put the question at least to rest to some degree. I understand the PDT and the TC speculating about what could happen, but I'll try to bring forward in advance of the next meeting that kind of a summary.

CHAIRMAN BORDEN: Other questions. Okay, Emerson.

MR. HASBROUCK: Thank you Mr. Chairman, for coming back around to me again. Megan, I have a question on Table 5 relative to the discussion we just had about trap allocations. I was discussing those numbers from New York with New York's lobster biologist, and her numbers don't agree with what is in the table. I would suggest that before this goes back out to the public that you resolve those numbers for New York in that table, please.

MS. WARE: Can do.

CHAIRMAN BORDEN: Anything else? No hands up. What I would like to do next is I'm going to go back to Pete Burns eventually, but what I would like to do is have a discussion on the issues that came in after the deadline; which is de minimis and the overlap area for Number 3, and the baseline.

We have to answer the questions on these, and then I think we can go back, have a debate on the overall addendum. We'll know what if any additional items will be added to the addendum; and then we can actually have a vote on whether or not to proceed to public hearing. I would like to take the first issue which is de minimis, and I'm going to recognize John Clark.

MR. JOHN CLARK: In conjunction with Mike Luisi of Maryland and Joe Cimino in Virginia, we put together this proposal for de minimis for our states; because as we stated in the proposal as included in the meeting materials, we have very small lobster fisheries in our states. It is getting to the point that the administrative burden of allowing these fisheries to go forward when, I jokingly refer to it sometimes as almost concierge management.

When we only have two lobstermen in the state and the state is putting in all this effort to make sure all these regulations are in place. We thought that as long as we follow the guidelines as stated in Amendment 3, which is the amendment we're working under for American lobster, and we're sure to not exceed the de minimis limit as put in Amendment 3.

If our states were exempted from these new regulations that we could still ensure that our insignificant lobster fisheries would not grow. We would not be an attractive situation to other states; because we would limit it only to the lobstermen we already had in our states. As stated the de minimis level is clear in the amendment, 40,000 pounds.

If we exceeded that if we did not follow through on the other parts of this, we would not be eligible for this option; but we were hoping that the Board would see fit to grant us this de minimis. In addition, as it's been pointed out during the Technical Committee presentations, down at our end of the range it is probably pretty doubtful that we're having that much impact on the stock anyhow; given the water temperatures and all. For those reasons we hope the Board can put this de minimis option into the addendum.

CHAIRMAN BORDEN: Mike do you want to follow along on that? No, okay; any questions for John on the de minimis proposal with that explanation? Peter.

MR. BURNS: Yes just curious. Is there a status quo option that goes along with that that would allow it? I thought when I saw it up there were just two options for de minimis.

MR. CLARK: Yes I mean status quo in the sense that we would have to follow all the other management requirements of the addendum. That would be the status quo is that our three states would have to implement all the management measures of the addendum. Then the second option that we would like to include would be one that would exclude us from the new management options.

CHAIRMAN BORDEN: Any further questions? No hands up. Are there any objections to including this in the addendum? Obviously this is for public comment. We'll get comment from not only all the states, but the federal agency on the issue. Dan.

MR. McKIERNAN: I think I object to it, and it's because this is reminiscent of what we just went through with Jonah crabs, where as I understand it, it is essentially a fish prosecuted in federal waters. You would have fishermen from a few states that are going to have different rules based on their state of landing.

The time is now for NMFS to speak up to whether or not this would be inconsistent under the federal standards for regulating fishing activity in the EEZ. As I understand it, the request is not concerning necessarily catches in their state waters; but it's in their state ports.

CHAIRMAN BORDEN: To that I won't put NOAA staff on point on that; but I'm happy to entertain any comments they want to make. Normally what NOAA has done on an issue like this, is they look at the item after it has been written out in detail, and they listen to the comments that are made; and then they submit written guidance on it. What my expectation would be that NOAA would handle it in a similar manner, but if someone on the NOAA staff wants to answer the question that was asked I will certainly recognize you. Peter.

MR. BURNS: Right just to clarify. The states can go ahead and if they were de minimis and they're exempt from implementing the regulations, then that would only apply to their state waters. But we would I am sure be asked by the Board, by the Commission to implement complementary management measures for Addendum XXV in federal waters. If those folks in those states, fishermen from those states with federal permits would be subject to those federal restrictions if they are more restrictive than the state ones.

CHAIRMAN BORDEN: All right so I'll go back and ask the same question, and if we have objections I'm going to ask for a motion on the issue. Is there anyone at the table that wants to object to including this proposal in the public hearing document? Emerson, you're objecting?

MR. HASBROUCK: Not directly, but as the discussion was going on here I was looking for a table that had the landings for the states that are asking for de minimis status. The only thing I could find is – I've lost it in the discussion – but it had landings for Southern New England, there we go, by state for Massachusetts, Rhode Island, Connecticut and New York, and then New Jersey and south.

I think it would be helpful that if this option is included in the document that Table 2 be expanded to show what the landings are for these states that are asking for de minimis status. If that request can be accommodated then I won't object to this request.

MS. WARE: The issue is Emerson that the landings from those three states are confidential. I could add those three states together and separate out New Jersey, but I cannot say in the document what Maryland's landings are for example.

MR. HASBROUCK: That's fine.

CHAIRMAN BORDEN: All right so I'll ask a third time, are there any objections? Craig.

MR. CRAIG A. MINER: I guess I'm just trying to be clear. This de minimis status in these two

states, is it driven by a bycatch; or are these targeted species?

CHAIRMAN BORDEN: John, do you want to respond to that please?

MR. CLARK: It's both. They have lobster permits, but they're also catching them as bycatch in black sea bass pots. Is there anything else, Mike? I think it's just those two fisheries.

MR. McKIERNAN: Yes I would just ask the three state proponents for this de minimis request to repeat on the record that if it won't apply to the federal permit holders, is it still worth going forward with?

CHAIRMAN BORDEN: Craig, did you have your hand up to follow up on that? I apologize.

MR. MINER: That's all right, thank you. When I think about bycatch I think primarily about species caught in a net that you probably can't release or shouldn't release; they're going to be dead discards or something like that. In this case these animals are alive. I don't know where recruitment is going to start to build from.

I couldn't tell you if it's going to be off the coast of the southern state or the coast of the Gulf of Maine. But right now we seem to have a spawning biomass that stays fairly consistent, and have continued downward spiral of recruitment. I guess my question would be, if it is going to be a de minimis status why wouldn't they just be released to the ocean?

Otherwise, maybe the burden of tracking all that would be sufficient to have the agency say look; it's not enough for us to do it so we're going to close that fishery. I think most of us that are dealing with some of the requirements of any of these selections are going to be facing some tough choices. I guess that's my only comment on de minimis.

CHAIRMAN BORDEN: All right I think we've got enough of a divergent view here so we need a motion. John.

MR. CLARK: **Well in that case I would move that the addendum include the proposal for de minimis status from Delaware, Maryland and Virginia as included in the meeting materials.**

CHAIRMAN BORDEN: Do I have a second? Second, Mike. Discussion, is there any discussion on it? Joe.

MR. JOE CIMINO: I just wanted to make one comment, or address something that was just said and that's some of the options that seem to be going forward, as far as seasonal closures, also would be including an option where bycatch fisheries are still allowed to retain lobsters. I don't see that as a difference; although I don't dispute anything that was said in that.

CHAIRMAN BORDEN: Ritchie.

MR. WHITE: I guess from what Peter said then, this would be de minimis for state water fishery. Is that a correct assumption?

CHAIRMAN BORDEN: I don't believe that's the intent from the maker of the motion, but John clarify that if I'm incorrect.

MR. CLARK: Well, no that was not, the intent was de minimis for the lobster fishery; which these guys are pursuing in both. I understand the federal waters issue is definitely a complication here. I was just going by the wording in the amendment that being that this is a joint plan, federal and state, I thought because of the state component of this that this could be done without causing huge problems here.

But obviously that is something that will be obviously evaluated here. If that is the case that it would not apply at all in federal waters that would make it less attractive; although as Joe

pointed out, there is the bycatch component to the black sea bass fishery.

CHAIRMAN BORDEN: Any other comments on this? Adam.

MR. ADAM NOWALSKY: Just what I believe is clarification perfection. I don't believe this is a proposal for de minimis status; as that already exists. I think this is a proposal for the de minimis states; as I believe it is.

CHAIRMAN BORDEN: John is that what the intent is; to Adam's point?

MR. CLARK: I believe that covers it.

CHAIRMAN BORDEN: Any other questions on this? Dan, do you have your hand up?

MR. McKIERNAN: Well, I guess I'm really concerned that we're going to have a lot of questions when this public hearing document goes out. If I hold a public hearing in Massachusetts, and fishermen from Massachusetts ask me what this means for those states to be de minimis. I guess I would fall back on Peter Burns' likely answer.

There is a lack of clarity or I guess I'm really shocked this is going forward without really clarifying that it would not apply to federal permit holders; if the federal government enacts complementary measures on its permit holders. Maybe if the document says that I'll be a little more comfortable.

CHAIRMAN BORDEN: Any other comments? Mike.

MR. MIKE LUISI: In thinking through this, I also share the concern based on what Peter mentioned about federal waters. I think when John and Joe and I talked about this, we were thinking that in federal waters that the provisions would not apply to our state licensed permit holders. However, after hearing where this might go in federal waters, so I'm going to support it at this point because I think it could be more defined in the document. We obviously have some questions about how this would work. I would like to see it stay in the document and be developed; so that when it is time to make a final decision we'll have all that information in front of us.

CHAIRMAN BORDEN: Anyone else who hasn't commented? No hands up. Are you ready for a vote on this? Do you want a one minute caucus; one minute caucus? **All right ready for the vote? All those in favor of the motion to include de minimis status in the addendum, signify by raising your right hand.**

Six in favor, opposed; two opposed, any null votes, any abstentions? One abstention; motion carries. Next item on the agenda is the overlap zone. Mark, would you like to comment on this? I would note while Mark is doing that; Grant Moore who is Chair of the LCMT3 is here and I may ask him to comment on it, since he and David Spencer collaborated on the development of this.

MR. GIBSON**: I would like to move that under the issue of the boundary line in Area 3 between Georges Bank and Southern New England; that the 70 line with overlap zone as described today, or as perfected today, be included in the addendum.**

CHAIRMAN BORDEN: Is there a second? I'll wait until we get the motion on the board before I call for a second; so you can see what it is. Mark could you please repeat the motion?

MR. GIBSON: I'll try; I may not get the words the same. In regard to the boundary line on Area 3 between Georges Bank and Southern New England; that the 70 line with overlap zone alternative be added to the addendum.

CHAIRMAN BORDEN: Is there a second on that motion? Pat Keliher. Discussion, Mark do you want to comment on this further?

MR. GIBSON: I would just comment that it was finally endorsed by the industry as deemed necessary to avoid conflicts out there in a spatially stratified fishery.

CHAIRMAN BORDEN: Grant, would you mind coming to the microphone? You can use that microphone right in front of you, and just explain the basis for this. Then I'll take questions and then we'll get into the debate on the issue.

MR. GRANT MOORE: The purpose; the industry sat down and basically with a sharp 70 degree line there was a big concern with shift in effort with some of the western fisheries thinking that if they were going to draw a firm line that they would definitely move their effort to the eastern side of 70 degrees. The reality of this is that there are probably eight to ten boats that are effected that fish either side of this line; and some of the fishermen are lobstering on the east side but they're fishing for crabs on the west side.

By basically putting this 30 degree buffer on either side of the line, and treating it like the Area 2/3 overlap, it is a solution that is going to basically solve the problem of fishermen feeling like they're being displaced and feeling like they're going to have to relocate. By adopting this measure we're really going to be, I believe giving the fishermen an opportunity to continue their practices; while still adhering to new regulations in southern New England.

CHAIRMAN BORDEN: All right any questions for either Mark or Grant; questions? Mark.

MR. ALEXANDER: My question is not directly related to the overlap zone, but I'm looking in the addendum on Page 28 under Option B. The last sentence there says season closures and gauge size increases that are implemented as a result of this addendum would not apply to fishermen who elect to fish exclusively in the eastern portion of LMA3. Essentially aside from whatever reductions in traps that may be claimed there, they are not implementing any other measures to address egg production?

CHAIRMAN BORDEN: Megan, if you would like to answer that. What is the intent?

MS. WARE: The intent of splitting Area 3 is the fact that it spans both the Gulf of Maine/Georges Bank stock and the Southern New England stock. The intent of this addendum is to address the Southern New England stocks decline. The reason we would propose these splits is so that those fishermen who exclusively fish in the Gulf of Maine/Georges Bank portion of Area 3 would be less impacted by this addendum. Through that sentence they would not be subject to any gauge size changes or season closures implemented as a result of this addendum.

CHAIRMAN BORDEN: Mark, follow up.

MR. ALEXANDER: Even though a big chunk of Area 3 east lies south of a latitude where Southern New England starts, those measures still wouldn't apply?

MS. WARE: The line was drawn based on the biological stock boundaries. The boundary between the Georges Bank stock and the Southern New England stock.

CHAIRMAN BORDEN: Any other questions for Mark or Grant? Adam.

MR. NOWALSKY: The original options in the document for the LCMA3 split contemplated a one-time versus an annual declaration. As I read the Rhode Island proposal that included only an annual declaration. Is there any merit for having both options, both an annual and one-time declaration or we're talking about with the overlap area that will only provide an annual declaration; and the overlap would not be a one-time declaration option?

MS. WARE: My understanding from the proposal is that the overlap zone, the fishermen would declare annually or could declare annually into either the Gulf of Maine/Georges Bank or the Southern New England stock. If the board would like to see an option with that proposal that also does a one-time declaration, we can add that. But we would need Board direction to do so.

CHAIRMAN BORDEN: Any other questions? Thank you very much, Grant. Peter.

MR. BURNS: There is just a lot to this and it's fairly new. I don't think there has really been any analysis on this. I know I really appreciate Grant's comments on this; and he addresses the number of vessels that are involved. But I guess I'm just curious about the enforcement on this, and whether or not the Law Enforcement Committee possibly could look into this.

Between now and the May meeting, if we were to add this into the document, to give an idea of whether the measures that we're going to possibly implement to help the Southern New England stock would be somehow diminished or compromised by something like this.

CHAIRMAN BORDEN: To that point, Peter. It was my original intent to have the Law Enforcement Committee review the Draft Addendum before this meeting. It would have been highly desirable to have their comments on a number of these provisions; but it simply wasn't possible.

At least from my perspective, I think this entire document has to go to the Law Enforcement Committee and get comments from them on all the proposals. Further discussion on this, any discussion, anyone object to including this proposal in the addendum? No objection; so it's included in the addendum. The next issue and this is the last one that Megan raised; was the baseline for the analysis. What the PDT and Megan have suggested is the benchmark stock assessment be the baseline for it; so comments or questions on that.

MR. GIBSON: The recommendation was for 2014, which is the terminal data year. I just want to make sure there is clarity. There is a difference between the calendar year, lobster fishing year, what the last bit of data is; which I think is the fall trawl survey. We're talking about fall of 2014. What do we mean by 2014? I just want to make sure before I make a motion or someone else does.

CHAIRMAN BORDEN: Megan.

MS. WARE: I think it would be the fall 2014 data and we can clarify that. The assessment, the terminal year is 2013 but it includes data from 2014 to stabilize that final year. That's the end of the last bit of data that we're including as part of the assessment.

CHAIRMAN BORDEN: Are you suggesting that some language to that effect be included in the addendum? Whatever was the terminal year in the analyses?

MR. GIBSON: Yes I think we're calling it the terminal data year for the stock assessment. I don't know if that means different things relative to the lobster catch year or the survey year. I guess the point it just to make sure there is clarity on that.

CHAIRMAN BORDEN: Any objections to doing that? No objections. Okay so comments on this baseline issue. **You've heard the recommendation from both the PDT and the staff on this; any objections to including that, no objections. It is adopted by consensus.** Okay so now what I want to do is go back to the Addendum XXV.

Essentially now you have a written addendum before you. We've added items to the addendum by consensus generally. I think we're to the point where we need to get on with the discussion that Pete Burns was raising about certain issues that he wanted to get into. Peter, I am going to come back and recognize you.

Then after I take a few statements I'm going to ask for a motion to send this addendum out to public hearing. I've asked the staff to draft a motion to do that just for clarity purpose. Let's take any statements that individuals want to make. Peter.

MR. BURNS: This is a very comprehensive document. It is a much different document then the one that we looked at in October. That document as you remember was the initial version from the Plan Development Team that set the boundaries for our next stage in Southern New England management; and included gauge increases, trap reductions and seasonal closures, and requiring all the measures to be tied to a gauge increase.

We've gone back out to public comment. We've received lots of comments and now we've got a very complicated and a lot more, I guess maybe comprehensive document; and a lot of different ways to look at this. But I think one of the things we have to think about moving forward is that we need to come up with a number here.

Ultimately what we're going to be deciding on in May is a percent egg production target, whether it is 0 or 60 percent or somewhere in between. All of these measures cobbled together are going to have to equal that number. We have some fairly good analysis from the Technical Committee and about the ability to measure seasonal closures and gauge increases, in their ability to improve egg production. But with trap reductions there is a real disconnect there; because the analysis that we have is predicated on active traps being removed from the fishery. We know that the way that we've allocated traps that it has been mostly latent traps that have been removed from the fishery.

I think that needs to be addressed here somewhere in the document that I think certainly we can give credit where credit's due. If we're looking for credit between 2014 and now for what we've gotten for trap reductions that's fine. But I don't think we have any way to quantify that.

I think it's misleading to the public if we allow them to consider trap reductions as an egg production tool; only to not really be able to quantify that and attribute those credits toward whatever egg production goals we come up with. I would like the board to address that or maybe Megan or somebody in the PDT could address it or the TC could address it; to see how these management measures going forward that are in here can actually meet the egg production goals as stated.

CHAIRMAN BORDEN: Any other comments on the addendum? Mark Gibson.

MR. GIBSON: Yes I just want to speak to this trap reduction issue for the record. Rhode Island staff engaged this issue prior to the Technical Committee and the PDT. We specifically used what's called a saturating type curve to describe this relationship, because we recognized prior to board comment and prior to Technical Committee input that the relationship would be nonlinear, and there would be factors that would prevent that linearity from emerging.

We specifically used a saturating curve, which is designed to accommodate and explicitly recognize those issues that have been repeatedly raised at the Board and by the Technical Committee. We believe that so much attrition has occurred by any measure, whether it is allocated traps, whether it is prep tags issued, whether it is plot hauls computed from landings and industry CPUE from the sea sampling program.

Just looking out my window over the past 15 years, there is enormous attrition has happened. We believe we have cut through that saturation point of the curve and are now in a position where trap cuts, whether you're talking about allocated ones or active ones; effort is going down now at a place where we're going to be on what we call the descending limb of the

saturation curve. I just wanted to put that on there for the record. Thank you.

CHAIRMAN BORDEN: Other comments on this. Dan.

MR. McKIERNAN: I agree with Mark, and over the next month and a half, two months, I think we have an opportunity to demonstrate what has been the effect of the effort control plan. I think if we can do that it will lend credibility to the proposal; or it may do the opposite. But I think the data will reveal, the data is important to look at and I pledge to bring that data forward as soon as possible.

CHAIRMAN BORDEN: Other comments. Mark.

MR. ALEXANDER: I appreciate the comments by Dan and Mark. I know that a lot of people have contemplated both sides of this issue. I would like to certainly see some analysis related to the saturation curve that Mark talks about. But I would specifically like to see some analysis or indication that indicates, or leads credence to the idea that a lot of the reduction seen in Areas 2 and 3 has been active and not latent traps. I think especially to get credit for reductions that have taken place to date, since the baseline that we just proposed. I think we really need to see that kind of analysis to be fair about the equitability of all these options that we're considering.

CHAIRMAN BORDEN: Any other comments here? Peter.

MR. BURNS: That was an interesting comment about the saturation curve, and I was just curious if the TC had had a chance to look at that; and whether the TC can give us an indication of how we can measure any trap reductions that have already taken place, as far as egg production is concerned.

CHAIRMAN BORDEN: Any other hands up on this. Eric.

MR. ERIC REID: I just want to remind the Board that this is a public hearing document for public comment; and I think we're having a lot of public comment before the document even goes out to the public. Trap reduction was a proactive measure by industry, and I think that should be acknowledged moving forward.

You've already got several people acknowledging and stating that they will provide the data as it becomes available. I just want everybody to remember this is a public hearing document, and we should have as many options for consideration as possible.

CHAIRMAN BORDEN: Does anyone else care to comment? Doug Grout.

MR. DOUGLAS E. GROUT: Maybe I missed it, but I thought Peter Burns had just specifically asked a question; if that saturation curve analysis that Rhode Island had used had been put before the TC for analysis. Maybe there was a nod that I missed. If it hasn't then I would recommend that that be put forward to the Technical Committee for analysis between now and the time that we make a final decision on this. If the state of Rhode Island would be willing to put that forward to the Technical Committee, I think it would help us in our decision.

MR. GIBSON: Yes I believe it has already gone to the Technical Committee and I believe that Burton's work, which generates the 25-13 number or whatever it is; 25 percent reduction in traps doesn't yield a 25 percent reduction in exploitation, it drops to 13 because he's using a saturation type curve. The nonlinearity or the linearity is just starting to emerge. I believe that has already been before the Technical Committee and those are the numbers that come out of it.

CHAIRMAN BORDEN: Doug, do you want to follow up on that?

MR. GROUT: No, if it's been before the Technical Committee that is fine. But I think it is something

that when the Technical Committee provides their input on this, hopefully they can put forward their opinion based on the analysis.

CHAIRMAN BORDEN: Does anyone else care to offer comment or another comment? Peter.

MR. BURNS: First of all I want to address Mr. Reid's comment, and I appreciate his understanding of the debate we're having here. I really am in favor of a document that has a lot of comprehensive options going out for public comment; and so I'm not trying to delay that. But I think this is a concern.

Because there are a lot of different interpretations it seems on what's happened with this Technical Committee analysis. If we could have something that could come before the Board prior to the review of this, if the Technical Committee could look at this and maybe clarify this issue; we've got a divided Plan Development Team on this.

Frankly the way that we're interpreting this at NOAA Fisheries, the way that this addendum is written right now there is a possibility that measures could come forward after we've approved this from the LCMTs; that really don't meet the goals and objectives of this addendum, which is to increase egg production.

Some of these trap reductions if they come in on their own as a sole way to make these egg production goals, if we're looking at this information loosely, can mean that there could be basically no action and we could meet the goal that is chosen. I've got some concerns with that. I would appreciate it if we could get some kind of clarification there.

I know we sent the TC back to the drawing board a lot of different times, but maybe this is a time that we can try to wrap this up; because as I said, I still don't have an answer on how we're going to quantify or enumerate trap reductions, and this document is not clear on that.

CHAIRMAN BORDEN: Any other comments that haven't been made? I think we're ready for a motion. **My suggestion would be to have someone make a motion to approve this addendum for public hearing as modified by the discussion today. Does someone care to make that as a motion?** Dan McKiernan is there a second, Eric Reid. Is there any discussion on the motion to approve the addendum for public hearing?

MR. BURNS: I would like to add an option into the document, if this is the appropriate time. I missed my chance before you asked for a motion to approve the addendum.

CHAIRMAN BORDEN: Motion on the table, so if you want to make a motion to amend you are certainly happy to do that.

MR. BURNS: I could do that. That's fine. **It would be motion to amend to approve Draft Addendum XXV for public comment and include Option C under the management measures; I think it's Section 2; that would state gauge size changes and season closures used together or independently. Gauge size changes and season closures may be paired or used independently to achieve the targeted increase in egg production.** I'm not sure if it's Section 2. I'm sorry; I don't have the document right in front of me.

CHAIRMAN BORDEN: Is there a second to this motion? Ritchie White. Discussion on the motion to amend, is there any discussion on it? No hands up. Peter.

MR. BURNS: Just to clarify. This just gives us one third option. The first option allows for independent use of all three management measures, the second one requires them to be tied to a gauge increase. This one just allows either gauge increases or seasonal closures to be used either together or independently; and this could be useful to the public, considering the controversiality of the egg production issue, the trap reduction issue, excuse me.

MR. GIBSON: Just to the maker of the motion. Would this option if adopted then preclude trap reductions from being used to calculate egg production increases?

MR. BURNS: Yes trap reductions wouldn't be included in this if this motion was selected. I think the point that I'm trying to make is that I think trap reductions have a place in our management program; they have for quite some time. In a lot of ways they were never intended to achieve egg production benefits.

The reason we had them in Addendum XVIII wasn't to achieve any kind of fishing mortality reduction or any kind of egg production; it was to right-size the industry, because we knew that it was rife with latent effort. At least this way we have some way that we can look at something else. I think if there is credit to be given for trap reductions then that's fine. That is what my questions were intended to get today was what those numbers are, and how we come to get that. But I never got an answer.

CHAIRMAN BORDEN: Anyone else on the motion to amend? Are you ready for the question? We'll take a one minute caucus on the motion to amend. All right are you ready for the question? This is on the motion to amend; Motion to amend to approve Draft Addendum XXV for public comment and include an Option C under Section 2 that gauge size changes and season closures may be used either together or independently to achieve egg production increases.

The motion by Peter Burns and second by Ritchie White, are you ready for the question**? All in favor of the motion to amend signify by raising your right hand. Nine in favor; opposed, two opposed, any null votes, none, any abstentions, one abstention. Motion carries. You're back on the amended main motion.** Are you ready for the question? Emerson.

MR. HASBROUCK: After the Board has discussed this, if anybody needs to discuss this, I'm wondering if we could go to the audience to see if there are any comments from the audience.

CHAIRMAN BORDEN: I'm glad you mentioned that. Does anyone in the audience care to comment on this? No hands up. Yes sir, if you could come up to a microphone please. At the table identify yourself.

MR. GEORGE DAHL: My name is George Dahl; I'm here on behalf of the Long Island Sound Lobstermen's Association. I do have to say that this addendum, the document is quite impressive and obviously took a lot of hard work to produce. Unfortunately there are some items in there that our members disagree with.

First of all in the Executive Summary it states that the poor condition of the stock is due to environmental conditions and fishing mortality. It implies that each thing is equal; and we find that environmental conditions are way more important than fishing mortality. The document also states that environmental conditions are, in our case that we should rebuild or have increased egg production in case the environmental conditions get better, so that the lobsters can survive.

My comments are just from Long Island Sound. What good is penalizing the fishermen with more restrictions if the environmental conditions are not good enough for the lobster population to survive? We also continue to disagree with Long Island Sound being lumped together in Area 3. Long Island Sound, there are things happening in Long Island Sound that are not being recognized.

We have in the last few years seen a tremendous increase in the stock. The data that you're using I believe is from the latest is 2013 or '14. In 2014 we implemented a closed season. I have never heard of any of the results from that closed season. Has it achieved what it was supposed to? All we hear is that there are more regulations coming on top. We never hear what

the results of all the things that we have already done.

In the Executive Summary, you had six items; increase egg production, new management tools, and impacts to the Jonah crab fishery, uniform management measures, and LCM3, something to do with LCM3. Also the effects of these measures on the recreational fishery, I'm astounded that in the Executive Summary there are not the impacts of these regulations on the commercial fishery. Also uniform management measures across the whole of Southern New England, we again believe that Long Island Sound is a special place and it should be treated as such.

CHAIRMAN BORDEN: I'm going to ask you to conclude your comments.

MR. DAHL: Okay I can understand that data is hard to collect and everything, but we have joined with this Fisheries Observer Program. I don't really know at this time who gets the data from that. But they've been out on lobster boats on Long Island Sound and taken brand new data.

I had the survey that they took and I was bringing it here, and then I realized that it's in some kind of a code which they have not told me how to read the stuff. I believe that that new data in Long Island Sound should be considered for any of these management measures. That's it thanks.

CHAIRMAN BORDEN: Anyone else? Beth. Is there anyone else after Beth that wants to speak from the audience? Then we're going to come back to the Board.

MS. CASONI: Beth Casoni; Executive Director Massachusetts Lobstermen's Association. As you can imagine, several of our members in Area 2, Massachusetts and Rhode Island have been trying to stay whole; and to not give credit to the trap reductions for part of this fishing mortality is detrimental to the industry for buy-in. I mean the fishermen are scrambling to stay whole, and when there are so few of them left who are they going to get their trap tags from?

One of our members, and I jokingly say he is looking at his father like, okay Dad when can I have your allocation; because further trap reductions are just going to be pitting fishermen against fishermen. It is an industry funded buy-out. To do the economics, I mean $30,000 or $40,000 to stay whole in an industry that is collapsing. In Massachusetts there are about 35 fishermen. To take that off the table for the past years reduction and to accelerate it, how are they going to stay whole with another 25 percent reduction? Thank you.

CHAIRMAN BORDEN: Back to the Board. Craig, you had your hand up.

MR. MINER: I am wondering whether, with this action having just been taken. Is it in any way conflicting with Option 2A in the document that we voted to take out to hearing; or are they separate?

MS. WARE: Nothing has been approved to take out for hearing yet that will be kind of the next vote here. But 2A and 2C I do not believe are conflicting, because they are different options. You can either chose to have trap reductions, season closures and gauge size changes used independently; which would be Option A, or you can have gauge size changes and season closures be used independently, which would be Option C.

MR. ALEXANDER: Just to be clear what Craig was trying to get at, so if ultimately Option C were chosen that would infer or imply that trap reductions had to be used; either in conjunction with the gauge increase or season closure. Is that correct?

MS. WARE: I believe the intent of the motion, but maybe I'll look to Peter Burns, is that trap reductions would not be used. But Pete, maybe you can clarify that.

MR. BURNS: This Option C is an alternative to the other two options because it does not include trap reductions. But there would still be Option B that allows trap reductions and seasonal closures to be used in conjunction with a gauge increase, or Option A that allows the three to be used either together or independently.

CHAIRMAN BORDEN: My interpretation all you're doing is adding another option to the document, not taking any of the options out.

MR. ALEXANDER: But if this were to be chosen it would take trap reductions off the table entirely, or would it just say the trap reductions have to be used with some other measure?

MS. WARE: The Board is considering adding an option right now, and that option would only look at season closures and gauge size changes. Final action in May would decide which option is ultimately chosen by the Board.

CHAIRMAN BORDEN: Any other discussion on the motion? Are you ready for the question; 30 second caucus. Are you ready for the motion? I have to go find the end of my microphone**. All those in favor of the motion on the board signify by raising your right hand; eleven in favor, no votes, anyone opposed, any abstentions, one abstention, any null votes. Motion carries.**

All right so the next item on the agenda is a Technical Committee report. Just by way of introduction, the last Board meeting Pat Keliher made a motion which passed, requesting the Technical Committee to look at the changing stock conditions in the Gulf of Maine and look at a whole number of different parameters, and then bring some recommendations back to us.

TECHNICAL COMMITTEE REPORT

CHAIRMAN BORDEN: Kathleen Reardon from Maine DMR is the new Chair of the Technical Committee; congratulations! She is going to give a report, and then at the end of the report what I want to do is discuss how to handle this issue. I'm going to tell you right up front what the recommendations are. One would be to initiate an addendum today or at the May meeting. The second I think alternative for the Board to consider would be to form a small subcommittee and bring a recommendation back to the next meeting; a written recommendation back to the next meeting. Those are the questions I'm going to ask you after we listen to Kathleen, take questions on her presentation. Then we'll go back and try to answer those two preferences; so Kathleen, welcome and congratulations!

MS. KATHLEEN REARDON: Thank you, Mr. Chairman. This will be the report on the Gulf of Maine/Georges Bank that the TC put together over the last couple months. Just to review, last spring the Board made the motion for the Technical Committee to shift our focus on to the Gulf of Maine to determine baselines, recent research, and data gaps for the Gulf of Maine and Georges Bank in relation to the lobster population.

We were tasked with some specific questions; they were to determine what we know about connectivity between Canada, Gulf of Maine and Georges Bank. If there had been changes for size distribution of egg bearing females, if there had been changes in the Gulf of Maine currents and how they could potentially impact larval supply.

What has been the stock recruitment relationship in Gulf of Maine and Georges Bank, and what are the current research holes; and how would we prioritize them? What could the benefits be for harmonizing biological management measures that are currently competing? Finally, could we develop a traffic light analysis as a potential control rule?

As a review of where we stand after the 2015 stock assessment, Gulf of Maine and Georges Bank were combined as one stock. We're still using the same reference period as the 2005 stock assessment of 1982 to 2003, and our

current effective reference abundance is above the 75th percentile.

The concern has come from the young-of-year settlement survey where the index has declined for a number of years; with record high spawning stock biomass. The TC believes that the egg production is unlikely to be the cause for the observed young-of-year declines. Temperature is one of the most talked about changes in the Gulf of Maine and other places as well.

Looking at this long term dataset of sea surface temperature from Boothbay Harbor in Maine, you can see that there have been more years since 2000 with days above 20 degrees Celsius than the previous 100 years. More warming is projected in the northwest Atlantic. For ocean currents, the Gulf of Maine is a complicated system.

Generally it is a clockwise gyre with some sub-gyres around the deeper basins. There is some inter-annual variability in deepwater sources coming off the shelf along the Gulf of Maine, and along the Gulf of Maine coastal current. The shelf water input can change the water masses, especially at depth in the Gulf of Maine; while the Gulf of Maine coastal current annual variability can drive differences in connectivity of the east and west regions, and stratifications along the coast.

There are strong correlations between the oceanographic trends and larval connectivity. There have been a few coupled biophysical modeling efforts to investigate the connectivity of lobster larvae. Depending on the ocean currents, especially that coastal current, some areas are more likely to be sources or sinks. But the models did find that most larvae came from local or upstream adjacent zones, but they can also come from multiple and distant sources. Eastern Gulf of Maine tends to be a source, while western areas are often sinks for larvae. The offshore banks have had less modeling effort, but the studies imply that the source of larvae is variable annually; but it is also uncertain at this point. The modeling research identified key factors for connectivity. The biological factors were location and amount of egg production, hatch timing and location at depth, larval development times and larval mortality.

For oceanographic factors the coastal current transport and eddies were a driving factor; but drift from wind forcing and stratification also played a role in where the larvae ended up. Shifting to older lobsters in connectivity, we looked at a number of tagging studies, many tagging studies have been completed and at different life stages.

The research shows that movement depends on life stage. The smaller lobsters don't move as much while the mature, reproductive lobsters can migrate long distances often seasonally and likely associated with thermal regulation. Tagging studies do depend on recaptures by the commercial fleet; so the success of those tagging studies depends on the distribution of fishing effort and reporting compliance. In many studies the days at large after tagging are short, so limited movement has been observed.

Summarizing the available tagging studies in the literature, a general southwest movement along the inshore Gulf of Maine and out to the outer Cape Cod, similar to the direction of the coastal current has been observed. There have been very few recorded recaptures providing evidence for exchange between the inshore Gulf of Maine and Georges Bank; but the analysis in the assessment of trawl surveys imply that there is more connectivity than the tagging studies suggest.

While there have been a number of studies on the offshore banks and inshore areas of Gulf of Maine, we found little work has been done to try to characterize the movement in the middle of the Gulf of Maine. At the end of this process of collecting tagging studies, a tagging project from the early 1980s completed by NMFS was brought to our attention.

The only available record of the results that we could find from the study published in the Commercial Fisheries News in 1985. The map is there and sorry for the quality, because it is a scan from a newspaper. The results indicate that lobsters in the deeper water tagged in the deeper water in the Gulf of Maine, travel in all directions; to Canada, to Georges Bank, to the inshore Gulf of Maine.

This work was never published in a peer reviewed journal, so we hope to explore this further if we can find more information. In the meantime there is a tagging study proposed by AOLA, New Hampshire and Maine that may try to tag some lobsters in the deeper basins offshore Gulf of Maine and Georges Bank; to at least partially replicate this study.

Moving on to looking at changes within the reproductive component of the lobster population, possible changes in size and maturity has been an ongoing question as the assessment is using parameters determined in the 1980s and '90s. For this initial investigation we focused on data from the commercial sea sampling programs from the states; and size classes below the minimum gauge.

We found the proportion of small egg bearing females has been increasing in all statistical areas in the Gulf of Maine; for which we have data, especially in the 76 to 80 millimeter size class and especially in 513 and 514 in the western areas. The figure shows a line for each size class and the proportion over time. The change indicates a decrease in the size at 50 percent maturity, and warrants further research. While the decrease in size at maturity would imply greater egg production, we did find that there may be changes in larval abundance.

The New Hampshire Seabrook Nuclear Station has been monitoring the larval abundance every year since 1988. Larval abundance is not necessarily straightforward or easy to interpret. But the index from this monitoring project indicates there has been an increase in Stage 1 larvae confirming the high egg production; but they've also observed a decrease in Stage 4 larvae, especially in the last few years.

This lines up with the young-of-year settlement index declines. At this point we do not know why these declines are being observed, but could be possible changes in hatch timing transport; also could be limits of food supply, as it has been noted in the literature that the zooplankton in the Gulf of Maine has also declined.

Unfortunately there are few larval abundant surveys available in the Gulf of Maine, but the TC is hoping to examine this further. Using the data we did have available, we were able to look at hatch timing using our commercial sea sampling programs; and found that while comparing the time period before 2009 to after, the hatch is occurring up to one month earlier in all statistical areas.

This is a big biological change that needs more investigation to determine the implications for the population. Another theory for why we have been observing declines in the young-of-year survey has been an expansion of available habitat per settlement driving the densities down, or observed densities down.

Post larvae have a temperature threshold for settlement where they are less likely to survive below a specific temperature. We currently assume a cutoff of about 10 meters as a threshold depth. This is just a preliminary analysis that looks at the available depth by statistical area, and does not consider the temperature or habitat quality for settlement.

By looking at depth alone, we found that depth was unlikely to be able to account for the declines in density. This simplified analysis found to double the amount of habitat area relative to the area available at 10 meters; more than twice the depth is needed. The amount of habitat increases incrementally with incremental depth.

I don't know if you can read that. In 511, which is the lower left panel, to get twice as much habitat than the 10 meter area you would have to go to 27 meters. Shifting gears to other tasks. The TC developed a stock recruitment relationship using the lobster model similar to the Southern New England developed relationship that we were talking about earlier.

Each point represents six to eight years of surveys and landings from multiple sources. The points at the end of the time series have less data to stabilize them and should be interpreted with caution. I'll focus on the lower, smooth plots in the slide. In both stocks starting in the early 1980s, there seemed to be a linear relationship between recruitment and the spawning stock biomass. As the spawning stock biomass increased recruitment increased. That changed for Southern New England around 1991, where the spawning stock biomass was still increasing and the recruitment was decreasing. Then after 1997 the spawning stock biomass was decreasing, but the recruitment stayed the same. In both stocks there seems to be a change and further decoupling beginning in 2003; but with opposite results. In Gulf of Maine/Georges Bank as the spawning stock biomass remained the same, the recruitment has been increasing.

The opposite was observed in Southern New England, where the recruitment decreased while the spawning stock biomass was stabilized. The Board asked the TC to consider the competing management measures in the Gulf of Maine/Georges Bank stock; and we looked at potential increases in minimum size.

As expected, by harvesting a larger size, less individuals are caught for the same yield. This leads to more mature lobsters in the population and potentially increased resilience. Looking at the figures below, the left shows the relative change in spawning stock biomass with increased minimum size, and the right illustrates the relative change in the total population biomass.

With an increase up to the same gauge size as Southern New England and outer Cape Cod of three and three-eighths inches or 86 millimeters, this analysis suggests a 75 percent increase in spawning stock biomass; with only a 20 percent increase in total biomass. That increase in spawning stock biomass could increase resilience in the population.

But the TC notes again that we are currently at record high levels for spawning stock biomass, and do not know if the system could support higher biomass. The TC did consider a traffic light analysis, but we want the Board to recognize that the last assessment provides a set of model free indicators that could be considered a traffic light analysis.

The TC recommended incorporating these indicators as part of the control rule in 2010; but the addendum at the time set the current control rule based on effective reference abundance and exploitation determined by the model. We do think that developing additional indictors reflecting changes in the environment like number of days above a certain temperature or predator abundance; could be a useful addition to the current indicators.

Also with the declines observed in the young-of-year index, we recommend monitoring the existing surveys that are in the model free indicators like the ventless trap survey and the inshore trawl surveys. The current control rule triggers action when effective reference abundance falls below the 25th percentile. Currently that threshold is defined by the reference period of 1982 to 2003.

We again recommend changing the trigger threshold for abundance to below the 50th percentile to increase the resiliency in this changing system. The table to the right is from a 2010 memo from the TC to the Board, using both the assessment model and the model free indicators; spawning stock biomass and young-of-year as an example of what were recommended in the past.

In the meantime there are a number of uncertainties and data gaps that the TC would like to highlight. There are some current research projects that address components of these; but we recommend further research on updating parameters for maturity, growth, and age; understanding natural mortality and how it could be changing or change in the future. Generally the environmental influence on the life stages of lobster, better understanding of mating and reproductive success, stock connectivity, especially between Gulf of Maine/Georges Bank and Canada, and better fishery dependent data about discards effort and landings with higher spatial resolution; especially in the offshore areas. Thank you for your time and I will attempt to answer any questions or bring them back to the Technical Committee if I cannot.

CHAIRMAN BORDEN: Questions for Kathleen. Any questions? No questions. Okay Pat Keliher.

MR. PATRICK C. KELIHER: I mostly just wanted to thank Kathleen and the TC for all the work they put into this. There is a lot of work obviously and a lot of analysis that went on here. I appreciate the effort that the TC put in to bring this report forward. Mr. Chairman, I did have a lot of questions but as I developed my list of questions what came to light was one of your suggestions that you made earlier; as far as a path forward.

Instead of spending a lot of time answering and asking questions, my thought was the development of a subcommittee to really start looking into this a little bit more thoroughly; to start talking about the ideas of resiliency for the stock in the face of a changing environment within the Gulf of Maine and to address any other issues that may arise out of this report. I would encourage the development of a subcommittee between Maine, New Hampshire, Massachusetts and Rhode Island to advance this thinking.

CHAIRMAN BORDEN: All right any other views on that? We're essentially to I think the end point here where we have to decide how to handle it or at a minimum form a subcommittee that can bring a written recommendation back to the Board. Pat is suggesting the subcommittee alternative; it would be Maine, New Hampshire, Massachusetts, and Rhode Island. Is that correct?

MR. KELIHER: That is what I would recommend, Mr. Chairman, and I would think obviously TC representation along with some state staff. But there probably ought to be, states ought to be identifying and selecting some potential industry members to participate in the discussion as well.

CHAIRMAN BORDEN: Any comments or questions on that suggestion; any objections to the suggestion? Okay Dan.

MR. McKIERNAN: Just a question for Pat. How would you envision a group like that relating to the LCMT, because the LCMT is kind of created in the same vein; but could you contrast your vision with what an LCMT would look like versus this?

MR. KELIHER: To be honest, Dan, I didn't really think about the LCMTs in this venue, other than this would be the State Directors, Managers, Commissioners, whatever we want to call them along with industry so the states could engage their LCMT members in the process.

CHAIRMAN BORDEN: All right any objections to that suggestion? If not, we'll form a subcommittee and I think to make it productive, it would be useful to have a written recommendation from the subcommittee at the next meeting. The committee will meet and include whatever technical advice and industry input they deem appropriate. No objections to that? If not we're going to move on to the next agenda item; which is the data deficiencies. Megan.

MR. KELIHER: Just quickly, many of our subcommittees obviously meet over phone, and I would encourage because of the proximity of the states, encourage these to be at least one

face-to-face meeting if not all to start the process.

CONSIDER ACTION TO ADDRESS DATA DEFICIENCIES IN THE AMERICAN LOBSTER FISHERY

CHAIRMAN BORDEN: All right. Moving on to the next agenda item and just for introduction the Lobster Working Reporting Group met. I think as everyone recognized they gave us some excellent items for suggested changes in the data collection protocol. Those have been fleshed out. Megan will highlight what those suggestions are, and then I think we'll have a discussion of whether or not we want to initiate an addendum on this to improve the data collection aspects of the plan. Megan.

MS. WARE: I'm just going to briefly highlight some of the recommendations from the reporting workgroup, which met in September, 2016. Just to kind of set the stage, this discussion on reporting started after a TC report highlighted some of the data deficiencies in the lobster fishery; particularly offshore.

Then subsequent to that a series of management actions have taken place, so we've had the National Monument, we have the ongoing Deep Sea Coral Amendment, offshore wind projects; all of these have kind of highlighted that improved data with greater spatial resolution is needed to respond to these growing management issues.

This is a table of the recommendations from the Reporting Workgroup; it is split up into short-term, intermediate, and long-term recommendations. The two short-term recommendations were that Maine's 10 percent harvesters reporting only include active commercial harvesters. Right now it also includes noncommercial harvesters.

There was also a recommendation to define inshore versus nearshore versus offshore; as we don't have consistent definitions for these three areas. Moving to the intermediate recommendations, there was a recommendation to require a statistically valid sample of harvester reporting.

The TC is working on that analysis and we hope to have that to you guys in a coming board meeting; but work on that is ongoing. Another recommendation was to add data components to harvester reporting; so things like soak time, trap hauls, LCMA. Some of the states are collecting this information, but it's not uniform across the states. This data would help provide greater effort data in the lobster fishery.

The third intermediate recommendation was to further delineate the statistical areas in the harvester reports, as a way to provide greater spatial resolution to the lobster fishery. Then we had three long-term recommendations. The first was to establish an electronic swipe card system. Some of the benefits of this are quick linking of harvester and dealer reports, pre-programmed fisherman information.

The second recommendation was to incorporate VMS on lobster vessels, to again get at the spatial resolution of the lobster fishery, and then the third recommendation was to create an electronic fixed gear VTR for all federal permit holders. This would help get at some of the more specific data needs of fixed gears; as opposed to all gears in general.

CHAIRMAN BORDEN: Questions for Megan. Any questions? I see no hands up. One of the items that is not included in this list that I think should be in it, relates not only to this agenda item but it relates to the previous agenda item. One of the biggest drawbacks in the current stock assessment, the most recent benchmark stock assessment, and this has been noted repeatedly by the Technical Committee and a number of states, and even federal partners; is the lack of a comprehensive bio-sampling program in federal waters.

It just doesn't exist. We have a trawl index that gets included in the stock assessment. We have

some other sampling from fixed gear, some observer coverage. But there really isn't a comprehensive program that spans all of federal waters. I think this should be one of the issues that we should seek some guidance from the Technical Committee on.

Then in fact, based on whatever they give us for a recommendation, possibly factor that into this addendum. One of the things I'm seeking some comment on is whether or not the board members think that we should ask the Technical Committee, basically to come back to us with a recommendation for a comprehensive statistically valid sampling program in federal waters.

Then factor that into the data collection program. This is going to become a critical – and I'm just speaking personally at this point – this is going to become a critical issue if the lobster resource in Southern New England continues to move offshore. If you look at the sampling programs for instances, in Area 4 and 5; they are almost nonexistent.

We need this data. To Pat Keliher's earlier initiative in terms of the Gulf of Maine and Georges Bank, I think as water temperatures continue to increase we should expect some of the same dynamics. I think it is important for us to seek some technical guidance on this. I discussed this concept a little bit with Bob Glenn the other day. His attitude was, and I'm not representing him here, his attitude basically was this is an excellent idea. I think we should do it. It is not a heavy lift for the Technical Committee to do it.

They know where the deficiencies are in the stock assessment. All I'm suggesting is that whatever action we take in terms of the data deficiencies that we basically seek the guidance of the Technical Committee to flesh out a sampling program for federal waters. What we do with that advice we will determine at a subsequent meeting. Comments on any of the above, and if somebody wants to make a motion to move this forward I would be happy to entertain a motion.

MR. McKIERNAN: Yes we've known for a long time that lobster is one of the most valuable species in the United States that probably has some of the weakest data collection. I would certainly be all in favor of filling those gaps. I think I provided a motion earlier to Megan, if you want to put that up for discussion. Would you like me to read it, David, at this time?

Move to initiate an addendum to improve harvester reporting and biological data collection in state and federal waters. The addendum should seek to one, utilize the latest technology to improve reporting, two, increase the spatial resolution of harvester data, three, collect greater effort data and four, advance the collection of biological data offshore.

CHAIRMAN BORDEN: Is there a second? Yes, Steve Train. Discussion on the motion. Doug Grout.

MR. GROUT: Maybe I misunderstood what you were saying, Mr. Chair. Originally I thought you were calling for something that we would be directing the Technical Committee to develop a program, and this is to initiate a management action. Is the intent that this would be a management action now or are we trying to get the information from the Technical Committee first?

CHAIRMAN BORDEN: I think the reason it's a little bit confusing is we already have a written recommendation from the working group on specific proposals. My suggestion was to just add tasking to the Technical Committee to give us that input; and then we would consider whether or not we wanted to fold that into the FMP or addendum. Are you clear on that Doug?

MR. GROUT: We're initiating an addendum and then we may add stuff to it, depending on what the Technical Committee sees happening.

CHAIRMAN BORDEN: That's correct.

MR. GROUT: This would clearly involve our federal partners and they have responded to some of our requests in the past for this type of a program.

CHAIRMAN BORDEN: Yes, NOAA has a number of personnel that attend Technical Committee meetings; and they would be, I would imagine heavily involved in this effort. Certainly we would invite them to be heavily involved in this effort. Other questions. Pat Keliher.

MR. KELIHER: I'm not sure Mr. Chairman that you answered, I mean you answered Doug's question to his satisfaction. But I'm unsure why we would initiate the addendum process now, before we got the information back from the Technical Committee. The Technical Committee still has not done an analysis on the appropriate level of harvester that should be reporting.

I brought up the issues with the state of Maine; we're at 10 percent now. What is the right number? It seems to me the idea and what you talked about and what is in here I agree with; I'm just not sure why we're initiating the addendum process at this time.

CHAIRMAN BORDEN: I think the only advantage of doing it now is we are now in the process. The PDT, there are a number of really definitive recommendations that the Working Group has already made. There is no uncertainty in regard to those, so the PDT can basically start developing a document on the issues that we have definitive advice on. Then on the two issues where we're going to get additional advice at the May meeting, then we'll decide whether or not to factor those in; depending upon the advice we get and how we receive it.

Does that make sense? Okay, anyone else on this; anyone in the audience on this issue? If not are you ready for the question? Do you want a 30 second caucus; 30 second caucus. All right, given the lack of discussion on that is there anyone at the table that is opposed to this motion? **Are there any objections to adopting it by consensus? The motion stands approved by consensus.**

JONAH CRAB ADDENDUM II FOR FINAL APPROVAL

CHAIRMAN BORDEN: The next item on the agenda is the Jonah Crab Addendum, and this is an action item, and we'll vote on it. Megan, if you could go through and outline the issues, then we'll move on with a couple of motions.

REVIEW ISSUES AND MANAGEMENT OPTIONS

MS. WARE: We're going to be discussing Jonah Crab Draft Addendum II today. I'll be reviewing the public comment we received, and then the Board will be considering final action on this addendum. Just a brief overview of the presentation today, I'll go over the two issues included in Addendum II, which are claw harvest and a definition of bycatch.

Then I'll go right into the public comment summary. We did hold public hearings and received written comment. Then we will finish up with a Law Enforcement Committee report. Starting off with our first issue, which is claw harvest. The FMP established a whole crab fishery, with the exception of individuals from New Jersey through Virginia, who can prove a history of claw landings prior to the control date.

However, following final action on the FMP several issues arose that have prompted this addendum. The first is that claw fishermen from New York and Maine were identified following approval of the FMP; and currently those fishermen are limited to whole crabs. There are concerns about the equity of the current provision.

The second issue is that NOAA Fisheries has stated that there might be some potential challenges implementing the regulation in federal waters; and this is specifically in regards to National Standard 4, which requires that

management measures not discriminate between residents of different states.

While the Commission is not under the purview of the Magnuson-Stevens Act, NOAA is and they are the ones that implement regulations in federal waters; where the majority of the Jonah Crab fishery is being executed. We have three management options for the claw issue. The first would be status quo, so only whole crabs can be retained and sold; with the exception of individuals who can prove a history of claw landings before the control date in the states of New Jersey through Virginia.

Option B would establish a coastwide whole crab fishery, so only whole crabs which meet the minimum size of 4.75 inches may be retained and sold. Once landed claws may be detached from the whole crab and sold; and there would be no minimum size for claws detached at the dock.

Option C would permit claw harvest coastwide. Under this option claws may be detached and harvested at sea. If the volume of claws harvested is less than five gallons, there is no minimum claw length. However, if the volume is greater than five gallons then claws must meet a 2.75 inch minimum claw length.

This is a slightly more conservative claw length than the expected length of 2.5 inches. This was chosen to ensure that claws are harvested from neither sublegal crabs nor berried females. Two claws may be harvested from the same crab. Under this option the bycatch limits would still remain in Addendum 1.
If a gear type is under the thousand crab bycatch limit, they would be allowed to land up to 2,000 claws. Fishermen can also harvest whole crabs which meet the 4.75 inch minimum size. Once landed claws can be detached from the whole crab and sold; and there would be no minimum size for claws detached at the dock. Moving on to our second issue, which is bycatch. The FMP established a 200 crab per day, 500 crabs per trip bycatch limit for non-trap gear. Addendum I increased this to a thousand crabs per trip, and expanded it to include non-lobster trap gear.

While the intent of the bycatch provision is to cap landings of Jonah crab across all non-directed gear types with a uniform allowance; the increased bycatch limit has raised concerns that it could support a small scale fishery. This is primarily due to the fact that there is no definition of bycatch provided. As a result a fisherman could target Jonah crab by landing a thousand crabs per trip and nothing else. We have two management options under the bycatch issue. The first is status quo. Under this option there would be no definition of bycatch in the Jonah crab fishery.

Fishermen using non-trap gear and non-lobster-trap gear could land Jonah crabs up to the bycatch limit without having any other species onboard. Option B would define bycatch as percent composition. Under this option Jonah crab caught under the incidental bycatch limit must comprise at all times during a fishing trip an amount lower in pounds than the species the deployed gear is targeting.

PUBLIC COMMENT SUMMARY

CHAIRMAN BORDEN: Moving on to the Public Comment Summary, eight public hearings were held. They were primarily in conjunction with the menhaden public hearings. Approximately 40 individuals attended. We also received seven written comments, five from organizations and two from individuals.

Looking at our first issue of claw harvest, a majority supported Option C, which is that claw harvest be permitted coastwide. Those in favor of this option stated that it provides equal opportunities to those along the state; that it's critical to pot fishermen to be able to land claws, especially in the summer when whole crabs don't survive without refrigeration.

Others commented that trawlers and gill netters have to break the claws off of the crab to remove the crab from the net, and so this provides them

an opportunity to participate in the Jonah crab fishery. Those who supported Option B, which is our whole crab fishery, expressed concern that a claw fishery could undermine the provisions of the FMP, namely the carapace width and the prohibition on egg bearing females.

There were also concerns about enforcement, and one individual expressed concern over the high mortality rate associated with claw harvest. We also had some who supported Option A, which is our status quo. Those who supported this option wanted more research on the claw fishery before changing regulations; and we had one individual say that residents of different states should not be treated the same if the fisheries are not the same. Moving on to bycatch, a majority of comments supported a bycatch definition based on percent composition.

Comments in favor of this option were that it would ensure a small-scale fishery does not develop, and ensure that the bycatch provision is truly used for incidental catch. We did have a couple comments that stated the thousand crab limit is too high. We did have one who is in favor of Option A, which is our status quo; and that letter said that there is nothing wrong with the current provision, and so there is no need to change it at this time. I will now pass it over for the Law Enforcement Committee report.

CHAIRMAN BORDEN: Before we do that any questions for Megan on what she just said? If not, Rene, welcome.

LAW ENFORCEMENT COMMITTEE REPORT

MR. RENE CLOUTIER: The Law Enforcement Committee met and discussed all of these options, and came up with Option B being the most enforceable; coastwide, whole crab fishery. This recommendation is consistent with previous positions regarding claw harvest allowance; and we continue to believe that this is clearly the most enforceable option.

It eliminates what would be cumbersome and potentially confusing measurement standards. As far as the bycatch definition goes, the Law Enforcement Committee went with Option B, bycatch defined as a percent composition. Although bycatch limits are generally low-ranked management measures with regard to enforceability, this proposed measure is considered a reasonable approach that could be understood and verified by fishermen and officers.

CHAIRMAN BORDEN: Questions for Rene, any questions? Joe and then Pat.

MR. CIMINO: I probably should have gone before, because this isn't directly at the law enforcement report, but that Option B kind of leaves out the option of it wouldn't be all other species combined right; it is only the I guess intended species of the gear. Is that a complication?

MS. WARE: I believe the addendum does say that it has to be less than the targeted species, and there is a definition of target provided in the addendum. I can try and find that if you're interested.

MR. KELIHER: Rene, the Law Enforcement Committee had an issue with volumetric measure of five gallons for enforceability?

MR. CLOUTIER: As a whole the Law Enforcement Committee thought that coastwide rather than getting into the five gallon pail and all of this would be more enforceable just a whole crab fishery.

CHAIRMAN BORDEN: Are there other questions for either Megan or the Enforcement Committee? Any other questions, okay. Oh Ali, excuse me.

SUMMARY OF NMFS COMMENTS

MS. ALISON MURPHY: If I could, could I just summarize the NMFS comments on the record. Would you like me to do that now or wait?

CHAIRMAN BORDEN: I prefer you to wait. I'll come back to you in just a minute. Are there any

other questions? No other questions, Ali you're up.

MS. MURPHY: We appreciate that the PDT and the Board developed a document with a range of alternatives that addressed our National Standard 4 concerns with the measures that were originally included in the FMP. That said we don't support Option C in Section 3.1 of Addendum II that would allow for an unlimited amount of claw harvest coastwide.

We believe that this would allow for an expansion of the claw fishery, which is beyond what was identified as a goal in the original FMP of capturing historic harvesting practices. Our own Office of Law Enforcement also believes that this would greatly complicate enforcement by our state and federal officers. Therefore our preference is for a coastwide whole crab fishery. However, we may be able to find some compromise with a small amount of claw harvest like one five gallon bucket. This limit would prevent an expansion of the claw fishery; it would capture historic harvesting practices, and minimize complication for enforcement to the extent possible. Finally we also commented in support of creating an incidental bycatch definition, as it will minimize targeting of Jonah crabs and could reduce gear conflicts.

CONSIDER FINAL APPROVAL OF ADDENDUM II

CHAIRMAN BORDEN: Any other statements that individuals want to put on the record at this point? If not, I think we're to the point where I'll entertain a motion. You've got three options here; and possibly one additional one you could cut down for instance on the volumetric standard as was just suggested. Does someone care to make a motion on this? Jim Gilmore.

MR. JAMES GILMORE, JR.: I'll wait until Megan gets back, because I'm going to try to do this telepathically. Megan, did you type up that motion? Okay could you put that up and then I'll just read it. It might be easier. **Move to approve Addendum II to the Jonah crab FMP with the following options. Issues 1, Option C, claw harvest permitted coastwide and Issue 2, Option B, bycatch defined as percent composition.**

CHAIRMAN BORDEN: Second to the motion, is there a second; yes, Mike? Discussion on the motion, Jim, do you want to speak in favor of your motion?

MR. GILMORE: Yes, again this was I think it went through when we first did the management plan. We kind of jumped the gun a little bit. This was really to correct some oversight. It is still a relatively small fishery, so I understand the Service's concern. But we don't have a great deal of fishermen involved with the fishery itself in the claw fishery; so this seems to be a good solution to fix all the things we missed earlier.

CHAIRMAN BORDEN: Michael, do you want to follow that up as a seconder?

MR. LUISI: Sure thank you, Mr. Chairman. I think this addendum does a nice job of taking the problems that we had, like Jim mentioned we kind of jumped the gun a little bit. It allows for the continued historical fishery in the areas where these types of activities have been going on forever. I do support the motion and I hope the rest of the board will as well.

CHAIRMAN BORDEN: All right we've had two positive comments, any negative comments? Ali.

MS. MURPHY: **Could I make a motion to amend? I'm just trying to figure out how this will all work. I guess this would say motion to amend to approve the two portions but revise Option C to read; Coastwide small volumetric claw harvest permitted, and then under this option only whole crabs which meet the minimum size of 4.75 inches may be retained and sold; with the exception of a one five gallon bucket allowance of detached claws per vessel per trip, which may be retained and sold. All harvest of claws must meet the minimum**

length of 2.75 inches, and two claws may be harvested from the same crab.

CHAIRMAN BORDEN: Is there a second to this motion? Dan McKiernan. Discussion on the motion to amend, Ali.

MS. MURPHY: If I could just provide a little bit of rationale. The previous comments that I made on the record are some of that rationale. An unlimited claw fishery I think could vastly expand the existing claw fishery; especially given the discussion that we just had with Southern New England lobster.

More and more people may be turning to Jonah crab. This motion I think is more consistent with the original intent of the FMP of capturing historic practices, and I think it also balances the historic claw fishery with enforcement and biological concerns raised during the public comment period.

CHAIRMAN BORDEN: Dan, as the seconder, do you want to comment?

MR. McKIERNAN: I would. Just for the record, in going back to the document. I just want the Board to know that a five gallon bucket of claws is the equivalent of about 250 in count; which is about 125 crabs. Just for reference, in case we want to drift to a new place, a tote like a single standard fish tote might represent 500 crabs and 1,000 claws. As we trade horses and negotiate that might be another place to consider, because I see the two sides diverging.

CHAIRMAN BORDEN: Other comments, Rene.

MR. CLOUTIER: We did a test and what we came up with is the average fish tote holds 120 crabs so that would be 240 claws and that fills a five gallon pail. It is not 500, it was 120.

MR. McKIERNAN: One hundred and twenty claws.

MR. CLOUTIER: One hundred and twenty crabs, 240 claws.

CHAIRMAN BORDEN: Other comments on the motion to amend; Doug.

MR. GROUT: Just to clarify with either this or the underlying motion. The control date that we had would not be as to who could participate in this fishery would no longer be in place, we would be getting rid of that control data; so that anybody could become part of the claw fishery.

CHAIRAMN BORDEN: That's correct. Pat.

MR. KELIHER: I can't support this motion to amend, only because we're talking about now starting to measure claws. We're talking about a simple volumetric measurement of five gallons. It is not a lot of crabs as you just heard Major Cloutier state. Fishermen are not taking small claws off those crabs. They are not worth taking to eat. I can't support any motion that has a claw measurement included in it.

MR. CLARK: I just had a question about whether this option, it was not in the addendum and it doesn't seem like it's between any of the other options that we had there; so the public has never had a chance to comment on this. Is it possible to even consider this now?

CHAIRMAN BORDEN: I am going to have to defer to the staff. Does this fall within the range of the options which were taken to public hearing?

EXECUTIVE DIRECTOR ROBERT E. BEAL: I'll give it a shot. I think this is probably in bounds and that the draft document did talk about the volumetric in a five gallon measure of crabs; and it also talked about potential to have a minimum size for crab claws also. I think the public probably did comment on volumetric and on minimum size for claws. It is up to the Board whether they want to go down this route or not. But I think it is probably in bounds, given the range of options that went out to public hearing.

CHAIRMAN BORDEN: Given the advice from the Executive Director I'll rule it a valid motion. Further discussion?

MR. McKIERNAN: If I could follow up to a comment that Pat Keliher made. I think the main motion does have measurements, in those cases when five gallons is exceeded the measurements are in play. If we reject this motion, we're going to go back to the main motion; which does have a requirement to measure claws, but only in cases where you have more than five gallons, just so that's clear.

CHAIRMAN BORDEN: Other discussion on the motion to amend? I've got Adam and then Ali.

MR. NOWALSKY: I'm going to support the motion to amend. In looking at the original addendum I had concerns. While I understand this is a practice that's been going on for some time, I'm not sure it is something if this was a new fishery and we were discussing it I would support moving forward.

But in order to accommodate fishermen that are using this practice, markets that have developed; I would support this and I support it as a middle ground between what is currently in here with prohibiting the claw landings and what is in currently Option C that would provide for more than a five gallon harvest, so I can support this.

MS. MURPHY: If the board has significant concerns with having a measurement requirement on the size of the claws, I would be happy to take that sentence out or entertain a friendly motion to take that sentence out; whichever is appropriate.

CHAIRMAN BORDEN: I'll just ask you as the maker of the motion. If you want to do that and the seconder agrees to that and we have no objections to doing that we can do it by consensus. Are you willing to do that?

MS. MURPHY: Yes.

CHAIRMAN BORDEN: And the seconder? Yes. Okay is there any objection on the part of the board on this. You're going to delete. I'll ask you to read your motion now as revised so the record is clear.

MS. MURPHY: Option C, coastwide small volumetric claw harvest permitted. Under this option only whole crabs which meet the minimum size of 4.75 inches may be retained and sold; with the exception of a one five gallon bucket allowance of detached crab claws per vessel per trip, which may be retained and sold. Two claws may be harvested from the same crab.

CHAIRMAN BORDEN: You have a revised motion. Dan is shaking his head yes. Discussion on that. Mike.

MR. LUISI: I can't support this motion, and the reason I can't support it is because it just doesn't work. The five gallon bucket is not enough for the two or three fishermen that I have in Maryland. We have gone round and round about this over the last year. To be honest I thought we had moved past the same discussion over and over again. The thousand claw option is what worked, and that was based on feedback that we got from the fishermen. I can't support this and I'll be supporting the original option.

MR. GILMORE: Similar comment and I know it might be in bounds, but we went out for public comment. There was a seasonal component to this, to the one main fisherman we have in New York, where it is essentially during July and August it's a claw fishery where he's taking those and the rest of the year he's actually taking whole crabs. I don't know if that five gallon limitation would preclude him during those months, so since I don't have that information I can't support the motion either.

CHAIRMAN BORDEN: All right other comments, anyone else? Does anyone in the audience want to comment on this? No hands up. All right so I'm going to take a two minute caucus on this. Just for the record, I recuse myself from crab

voting; because I have membership that is involved in the fishery.

Are you ready for the motion to amend as read? All those in favor of the motion to amend raise your hand and keep it up, please. Four in favor, opposed, six opposed, any null votes, any abstentions? The motion fails. You're back on the original motion as submitted; so discussion on the original motion. Doug.

MR. GROUT: To the commissioners in the states that do have existing claw fisheries, is it in a lobster trap fishery? Are there claw fisheries in your lobster trap fishery, because that is the one case under this particular motion that we're making? We could have literally unlimited increase in the number of claws being removed. That is the one concern that I have with it. But I'm not sure whether your fisheries are in lobster trap fisheries.

Mr. TOM BAUM: I can't answer your question specifically. Most of those Jonah crab harvest is from our lobster fishery; but we do have a few that target them. As far as the claw harvest, depending on what the market is, they'll have a dealer come down and specify I'm buying claws or I'm buying whole crabs. Recently it has been whole crabs, but that could change depending on the mood of the dealer; I imagine.

MR. LUISI: To the question. We have a couple guys that they are catching Jonah's in their lobster gear. There are one or two guys who are catching them in their whelk pot. That is where the crabs are coming from in Maryland.

CHAIRMAN BORDEN: Further discussion on the motion? Yes, Ray.

MR. RAYMOND KANE: Mike, so these boats are essentially fishing offshore lobstering. They do have RSWs right, to maintain the lobster catch, refrigerated sea water; no. Thank you.

CHAIRMAN BORDEN: Anyone else? Dan.

MR. McKIERNAN: If this fails I would suggest we consider a one fish tote option or something to cap the number of claws coming in; because I agree with NMFS that I am nervous about the potential growth in this fishery that law enforcement is going to be really burdened by having to pull out gauges to measure something that is pretty small. I mean there are a lot of claws in a per unit volume.

CHAIRMAN BORDEN: All right we've had a good discussion; does anyone want to make a point that hasn't been made already? If not I am going to allow a one minute caucus, and then I'm going to call the question. Are you ready for the question? No hands up. All those in favor of the motion on the board, please signify by raising your hand.

Six in favor, oh seven in favor; I had Terry Stockwell down at the end of the table. Opposed, five opposed any null votes, any abstentions? The motion passes. The next issue is an implementation timeline, and I'm just going to make a suggestion here that we use January 1, 2018. Can I get a reaction to that from the states whether or not that is a reasonable period of time to put this regulation in place?

Are there any objections to that as an implementation timeline? Okay no objections so we'll include that in the document. The last action on this item is because it's a final vote we need a motion to approve the addendum and then take a roll call of the states on the motion. Does someone care to make a motion? Doug.

MR. GROUT: **I'll help out; motion to approve the addendum as modified today.**

CHAIRMAN BORDEN: All right is there a second, second, John Dean; thank you. Any discussion on the motion? No hands up. Anyone in the audience, no hands up. Okay are you ready for the question? I guess everyone is. Megan, would you please call the roll.

MS. WARE: Maine.

MR. KELIHER: Yes.

MS. WARE: New Hampshire.

MR. GROUT: Yes.

MS. WARE: Massachusetts.

MR. KANE: Yes.

MS. WARE: Rhode Island.

MR. GIBSON: No.

MS. WARE: Connecticut.

MR. ALEXANDER: No.

MS. WARE: New York.

MR. GILMORE: Yes.

MS. WARE: New Jersey.

MR. BAUM: Yes.

MS. WARE: Delaware.

MR. CLARK: Yes.

MS. WARE: Maryland.

MR. LUISI: Yes.

MS. WARE: Virginia.

MR. CIMINO: Yes.

MS. WARE: NOAA Fisheries.

MS. MURPHY: Abstain.

MS. WARE: New England Council.

MR. TERRY STOCKWELL: Yes.

CHAIRMAN BORDEN: Final vote, Megan. Just read it into the microphone.

MS. WARE: **Motion passes 9 to 2 and one abstention.**

CHAIRMAN BORDEN: **Motion approved and I note just for the record that that includes one of the provisions in the addendum was that we would forward a request to NOAA to implement the rules in federal waters; and the staff is charged to do that.**

TECHNICAL COMMITTEE REPORT
LOBSTER FISHERY IMPACTS FROM NEFMC'S OMNIBUS DEEP SEA CORAL AMENDMENT

CHAIRMAN BORDEN: Okay so last item on the agenda unless there is something under other business is Technical Committee Report. This is on Deep-Sea Corals. Kathleen.

MS. REARDON: The TC was tasked to provide an assessment of the lobster fishery impacts for the New England Fishery Management Council Omnibus Deep Sea Coral Amendment. Just to give you the plan timeline, the Council plans to publish the preferred alternatives in April, 2017, and then hold a final vote in June of 2017.

These proposed closures are both in Area 3 and Area 1, with options including broad areas by depth or discreet canyons on the edge of the shelf; or a combination of the two, in addition to the National Monument, and some Gulf of Maine areas in both Area 1 and Area 3. Using vessel trip reports to assess revenue value, the Council has identified the lobster fishery as highly impacted by these closures if they are applied to the trap fishery. As we have discussed before, using VTR data to characterize the lobster fishery is problematic. VTRs are not required for all lobster permits. There is a high percentage but not 100 percent of Area 3 boats with VTR requirements, but in Area 1 the percentage are very low. Without full or better coverage VTR estimates could be underestimating the revenue impact in these areas.

The TC focused on two areas for alternative analyses, the proposed broad area closures at

the edge of the shelf and the two proposed closures in Area 1. For Area 3, a 2016 survey of Area 3 industry members characterized offshore effort in the lobster and Jonah crab fisheries. The survey provided an estimated proportion of revenue and effort by depth; with 35 percent of the permit holders responding.

For Area 1 we used Maine dealer data that covers all dealer transactions, and the Maine harvester logbook data that is collected from an annual 10 percent of the Maine license holders. In addition to these datasets, some information was contributed from potentially impacted Area 1 fishermen to estimate number of boats and harbors.

Unfortunately, I didn't have a map of all of the areas, the discreet canyons and offshore areas; so this is just an example. The map to the left is the broad areas by depth, and then the map to the right is just a subset of some of the canyons that would be impacted. In interest of time I will not go into the methods of each scenario. You can look at the report if you would like to learn more about that. Instead I'll focus on the results and uncertainties.

For the shelf and discreet canyons, in addition to the National Monument designation, the worst case scenario estimate was a 6.5 million impact for the combined discreet canyons and 300 meter broad area; while the minimum was 3.3 million dollars for just the discreet canyons and the National Monument.

The un-weighted proportions were based on straight proportions within the survey results, while the weighted estimates were weighted relative to the other responders in their survey. The final estimated values were based on the proportions in the survey and the total value estimated by VTRs. Although we did not produce an estimate for the Jordan Basin and Lindenkohl Knoll, these are the maps of those discreet areas that would be impacted for the Area 3 fishery.

This is the map of the Area 1 proposed closures, with the Maine lobster zones. The two areas are Mount Dessert Rock and Outer Schoodic Ridge. You can see the Jordan Basin proposed closures below; right above the Legend. For Area 1 we used three approaches to estimate revenue impact.

The first provided the total revenue by Maine zone, by distance from shore. This estimate does not assign a value to the discreet proposed closures. The second approach took an average value in days fished by month from the Maine Harvester logbooks, and combined those averages with a maximum and minimum number of boats and percent income to determine a range of values for these two areas.

The third method looked at the value by square mile and calculated the value by percent area. The value of the two distance-from-shore categories impacted by these closures, are outlined in red. In Zone B, the one in the center, between 3 and 12 miles; this is where the Mount Dessert Rock closure would be. The total value between 3 and 12 nautical miles was estimated over 15.3 million, while outside of 12 miles in Zone A the area to the right was worth 9.8 million in 2015. The TC was wary about producing estimates at a finer spatial scale than the scale at which the data was collected. But we decided to determine a range of estimates, which came out to over 8 million down to 1.2 million.

The TCs preferred estimate was for 50 boats in each area with 50 percent of their income derived for a limited number of months during the winter and spring totaling about 4.2 million as an impact. There are a number of sources of uncertainty for these analyses, for both the broad areas and canyons in the inshore Gulf of Maine; calculating the percent area assumed equal productivity of habitat.

The TC considers this unlikely and thinks it leads to underestimate of revenue. Second, we were unable to validate industry information from the

surveys and interviews. Third, in the Maine inshore areas the distance from shore proportions are based on 10 percent harvester reporting; and we are unsure if the reporting adequately represents the offshore areas.

In all cases there was low spatial resolution, so it is difficult to assign a value to a specific area with confidence. This is something slightly different, but wanted to bring it to your attention. This is the co-occurrence model developed as part of the Large Whale Take Reduction Plan. The Outer Schoodic Ridge Area is in the middle of a high co-occurrence area with whales and lobster gear; while the Mount Dessert area is adjacent, or just north of an area where there is co-occurrence.

Spatial closures in Maine have been avoided in the Atlantic Large Whale Take Reduction Plan, due in part to concerns about the displacement of effort and a potential to increase the density of vertical lines along the edge of the closure. A similar scenario exists here, relative to the proposed coral closures; with the displacement of gear creating a higher risk of entanglement in the area surrounding the closure.

For this reason there is great concern regarding unintended impacts to whales in the Outer Schoodic Ridge Area, where whales are known to frequent; while the impact near Mount Dessert Rock is less certain. I will take any questions, but the report in the supplemental materials goes into much more detail as well.

CHAIRMAN BORDEN: Any questions? No hands up. Eric.

MR. REID: I just want to point out that there isn't an option for a broad zone at 900 meters now.

CHAIRMAN BORDEN: Anyone else want to comment, any hands in the audience; if not? Pat, excuse me.

MR. KELIHER: Considering the potential ramifications that would come from a closure based on corals, I would like to request the Lobster Advisory Panel be tasked to review the TCs analysis *and potential impacts* to the lobster and Jonah crab fishery as a result of this Coral Amendment.

CHAIRMAN BORDEN: Any objections to asking maybe the AP to formalize some recommendations? Excuse me, I'm losing my voice. No objections, all right we'll do that. Is there anything else under this item? The one thing that I would suggest is that as I understand it the timeline for the council to take action on this is at the April meeting. Terry, is that correct?

MR. STOCKWELL: The Council is scheduled to select preferred alternatives at the April meeting, final action.

CHAIRMAN BORDEN: The one thing that I think would be helpful for the Board is if we could have Michelle come to the next Board meeting and actually go through the addendum in detail at that point, and explain it. If for some reason the Council delays action on it, then that could take place at the May meeting.

I think that's it. This is what happens when you go to the Massachusetts Lobstermen's Association meeting; the plague. Okay so anything else under this item? Terry, if you would just if for some reason it slows down then I think it would be helpful to have Michelle come and explain it. She is incredibly knowledgeable. I'm sure the Board members would benefit from that type of presentation. Terry.

MR. STOCKWELL: I'm not sure of the exact scope of the public comment period. Would it seem that our May Board meeting would be in the middle of it, so it might be appropriate for her to come at that point? The final action is not scheduled until the June Council meeting, which is almost a month later.

OTHER BUSINESS

CHAIRMAN BORDEN: Okay, thank you, so anything else on this? We're into Other Business. Any other business? If not, I just

remind everyone as Megan said, the public comment period on Addendum XXV is going to be April 1st. We're going to need the states that coordinate the LCMTs from Southern New England to put together those committees, and in some cases those committees need to be reconstituted.

I think the states should have the flexibility to do that. I think it is extremely important for us to get comments from the Advisory Panels that were set up originally; and that all has to take place before April 1st. Is there any other business to come before us? Any objections to adjourning? Dan.

MR. McKIERNAN: David, I think what I should do because Massachusetts is the host state for Area 3, which is the LCMT with no home. We will send an e-mail around to the heads of the delegations describing whose a current participant in that team; to see if they have any nominations or recommendations.

There can be at least 10 or more members, and many of the states are listed throughout the range of lobster as potential participants in that team. We would want to get people that as you said, get the whole team reconstituted; but we would need names from the directors.

ADJOURNMENT

CHAIRMAN BORDEN: All right, any other business? If not the meeting stands adjourned. Thank you very much. Five minutes early.

(Whereupon the meeting was adjourned at 3:55 o'clock p.m. on January 31, 2017.)

New England Fishery Management Council

FOR IMMEDIATE RELEASE
April 19, 2017

PRESS CONTACT: Janice Plante
(607) 592-4817, jplante@nefmc.org

New England Council Selects Coral Amendment Preferred Alternatives for Gulf of Maine, Continental Slope and Canyons

In preparation for a round of public hearings in May, the New England Fishery Management Council on April 18 selected "preferred alternatives" for its Omnibus Deep-Sea Coral Amendment, which contains proposals for protecting corals in the Gulf of Maine and on the Continental Slope south of Georges Bank.

The amendment covers:

- The inshore Gulf of Maine – Outer Schoodic Ridge and Mt. Desert Rock;
- The offshore Gulf of Maine – Jordan Basin and Lindenkohl Knoll on the edge of Georges Basin; and
- South of Georges Bank – Continental Slope and canyons region.

Inshore Gulf of Maine Preferred Alternative

The Council's preferred alternative for the inshore Gulf of Maine would prohibit mobile bottom-tending gear (trawls and dredges) within both the Schoodic Ridge and Mt. Desert Rock areas. While an option to prohibit *all* bottom-tending gear, including lobster traps/pots, is still in the amendment, it is **NOT** the Council's preferred alternative. The Council recognized the economic impact associated with preventing the lobster fishery from working within the inshore areas and acknowledged that shifts in effort to other locations could be problematic.

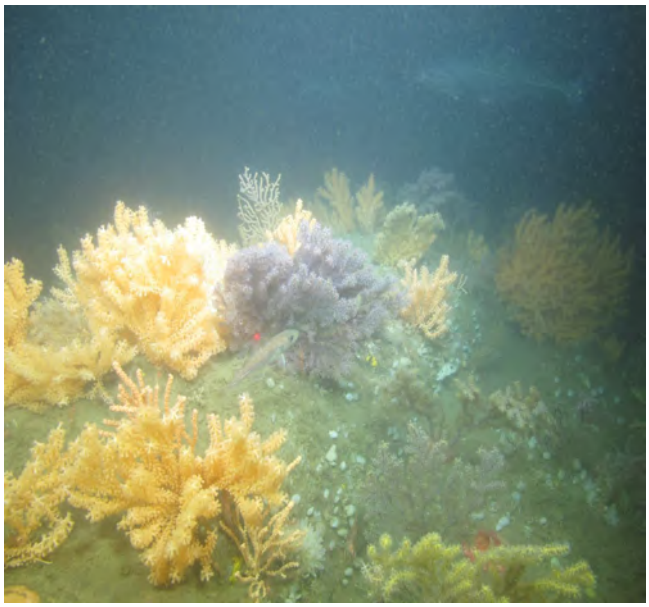
Offshore Gulf of Maine Preferred Alternative

The Council's preferred alternative for the offshore Gulf of Maine would prohibit bottom-tending mobile gear within Jordon Basin and/or Lindenkohl Knoll ***"if coral zones are adopted"*** for either or both areas.

Under the preferred alternative, if offshore Gulf of Maine areas are adopted following public hearings, lobster traps and gillnets could continue to be fished within Jordon Basin and/or Lindenkohl Knoll.

IMPORTANT: *The Council often selects preferred alternatives prior to public hearings to give stakeholders an indication of which direction it is leaning at that particular point in time.*

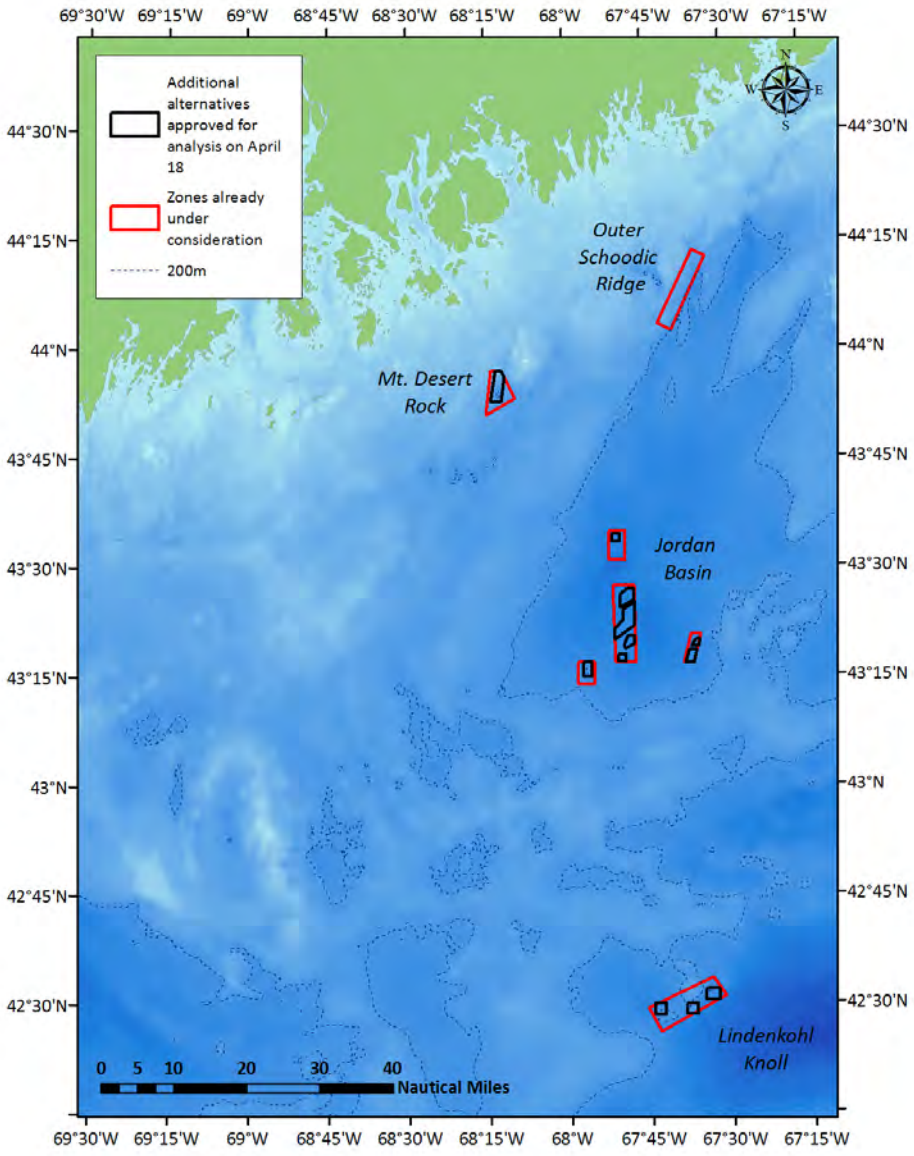
However, the Council is ***NOT OBLIGATED*** *to adopt preferred alternatives when it takes final action. The Council will consider all public comments before making any final decisions related to the Omnibus Coral Amendment.*



Soft corals and fish in Jordan Basin. – Image courtesy of Peter Auster

New England Fishery Management Council

Gulf of Maine Boundary Alternatives



Frameworkable items selected as preferred include:

- Add, revise, or remove coral zones;
- Change fishing restrictions; and
- Allow development of exempted, special access, or exploratory fishing programs.

For the Gulf of Maine, the Council is considering multiple **boundary alternatives** for coral protection zones.

- The Council previously adopted the larger red boundaries in the map at left for inclusion in the amendment.
- On April 18 at its meeting in Mystic, CT, the Council directed the Habitat Plan Development Team to analyze the smaller **black boundaries** as an alternative to send to public hearings.
- The Council has not yet identified preferences between the larger vs. smaller areas.

Note: See next page for Continental Shelf map.

Frameworkable Items

Under the amendment's "Framework Provisions for Coral Zones," the Council selected all of the alternatives except "no action" as preferred. These alternatives would allow the Council to make specific coral management changes through framework adjustments, which often can be developed more quickly than amendments.

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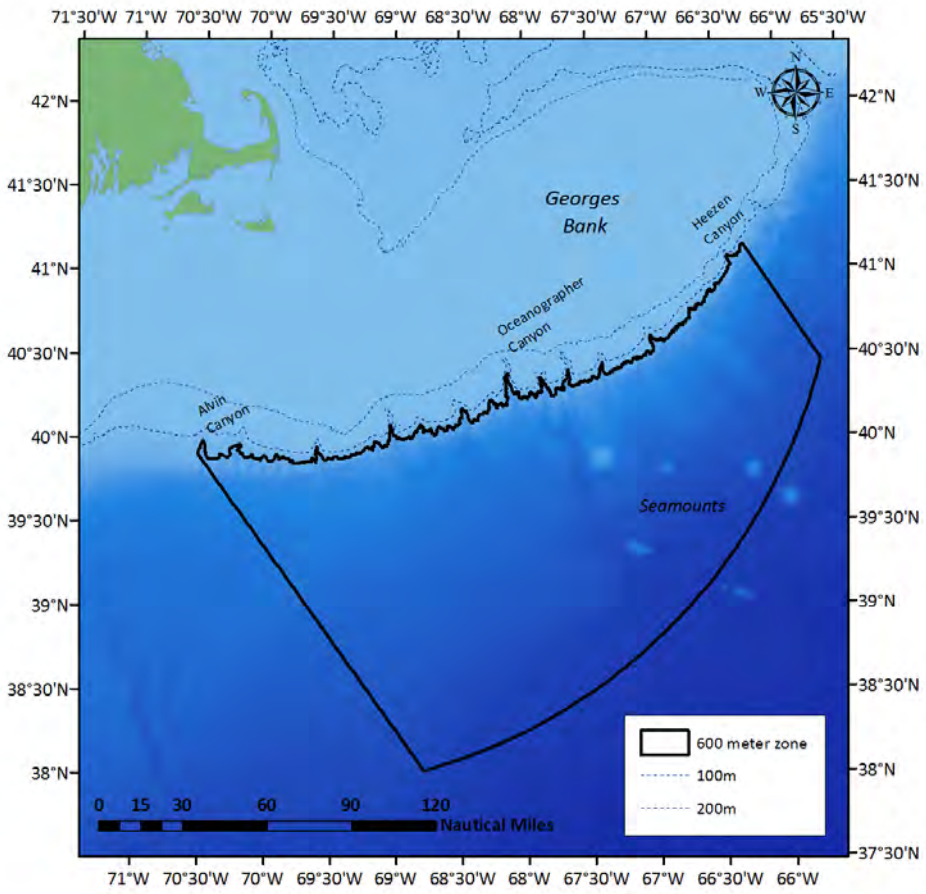
New England Fishery Management Council

South of Georges Bank – Continental Slope/Canyons Region Preferred Alternative

The Council selected a broad coral protection zone boundary of 600 meters minimum depth, equivalent to roughly 325 fathoms, as its preferred alternative for the Continental Slope/canyons region, which is south of Georges Bank. The use of all bottom-tending gear would be prohibited within the zone. However, the Council's preferred alternative provides a pot gear exemption for the deep-sea red crab fishery, which is the only fishery using bottom-tending gear known to take place deeper than 600 meters.

The amendment also contains 300-, 400-, 500-, and 900-meter broad zone alternatives, which will be included in the public hearing document.

The Council will announce the public hearing schedule, including dates and locations, in early May. Late-May public hearings are anticipated.



The Council recognizes the importance of additional scientific research to understand the distribution and ecological importance of coral habitats.

As such, the amendment will include a detailed list of research priorities, as well as a provision to help the Council and National Marine Fisheries Service track coral-related research projects occurring within and around the designated management zones.

Through this Omnibus Deep-Sea Coral Amendment, the Council is attempting to "freeze the footprint" of fishing activity in designated coral protection zones to prevent the expansion of fisheries in sensitive coral areas that currently are unfished.

- Documents used during the Council's April 18 Coral Amendment discussion are available at: http://www.nefmc.org/library/april-2017-habitat-committee-report.
- The draft coral amendment is available directly at: http://s3.amazonaws.com/nefmc.org/2a.-170410_Draft_Coral_Amendment.pdf
  Note: This is a large document and may take time to download.
- For more information, contact Habitat Coordinator Michelle Bachman at (978) 465-0492 ext. 120, email mbachman@nefmc.org.

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Due to file size, NEFMC's Draft Omnibus Deep-Sea Coral Amendment can be found at

http://www.asmfc.org/files/Meetings/2017SpringMeeting/NEFMC_DeepSeaCoralAmendment.pdf

Atlantic States Marine Fisheries Commission

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MEMORANDUM

TO: American Lobster Management Board

FROM: American Lobster Technical Committee

DATE: January 25, 2017

SUBJECT: Analysis on Potential Fishery Impacts as a Result of the NEFMC Coral Amendment

The New England Fishermen Management Council is currently working on an Omnibus Deep Sea Coral Amendment which looks to protect deep sea coral habitat in the northwest Atlantic Ocean. This Amendment may impact the lobster and Jonah crab fisheries as currently, there are proposed closures in the Gulf of Maine and Georges Bank. In an effort to estimate potential impacts to the lobster and Jonah crab fisheries, the Technical Committee (TC) conducted two analyses, one which estimates impacts to the offshore fleet which fishes in and around the canyons, and another which estimates impacts to the Maine lobster fleet which fishes around Mount Desert Rock and Outer Schoodic Ridge. The intent of these analyses is twofold. The first objective is to provide an estimate of the potential impacts to the lobster and Jonah crab fisheries which does not rely on data solely from Vessel Trip Reports. The second objective is to provide another method of analysis which can be compared to the impact analysis currently being conducted by the New England Fishery Science Center.

This report is comprised of two parts. The first part estimates impacts to the offshore lobster and Jonah crab fleet by using data from ASMFC's recent mail-in survey as well as bathymetry data from NOAA. It looks at the impact of various scenarios, including discrete canyon zones, broad depth zones, and the national monument. The second part estimates impacts to the Maine lobster fleet which fishes around Mount Desert Rock and Outer Schoodic Ridge. This analysis uses three different methods to estimate impacts to landings and revenue, and considers potential implications of deep-sea coral closures on whales.

1. Alternative Analysis of Lobster Fishing Activity in Deep-Sea Coral Zones Off Georges Bank.

The New England Fisheries Management Council is considering different scenarios for protecting potentially sensitive benthic habitats along the shelf edge of Southern New England and the south side of Georges Bank. Specifically, the Council is interested in understanding how different closure scenarios would impact fisheries in this region. One analysis has been conducted by NEFSC staff, based primarily on revenue and coordinates from vessel trip reports (VTRs). This first approach recognizes and attempts to model the uncertainty of the reported VTR coordinates by distributing the reported landings to a neighborhood around the reported coordinates, then estimating impacts of different spatial closures. The TC's analysis examines an alternate method for assigning value to different habitats and exploring the impacts of different scenarios. The method is applied specifically to the offshore American lobster and Jonah crab

industry, one of the fleets expected to be most affected by such closures, and is largely independent of the VTR data. The primary purpose for this alternate analysis is to validate the estimates from NEFSC based on VTR coordinates. However, comparisons to this analysis are not included in this document because the NEFSC report is not yet finalized.

Methods

The region of interest was defined, based on provided shapefiles for different scenarios, to include NMFS statistical areas *525, 526, 541, 542, 543, 562, and areas 534 and 537 east of -70.55 longitude.*

A value for each portion of habitat in the proposed closure region was estimated by combining results from a recent mail-in survey of LMA3 Fishermen (Whitmore et al. 2016) with a regional bathymetry map. In the survey, fishermen provided the estimated proportion of their effort and revenue across depth intervals of <100m, 100-200m, 200-300m, 300-400m, and >400m. Fishermen also provided their gross lobster and Jonah crab revenue for 2014 and 2015 from the region of interest. Though all fishermen with Area 3 lobster licenses were contacted for the survey, less than half responded and not all responses included all relevant information for this analysis. Thus, it was necessary to assume that the responses that included the necessary information are representative of the fishing fleet in this region (35% of Area 3 fishermen responded to the survey). Percent effort and revenue were averaged across applicable fishermen to get mean unweighted estimates of effort and revenue for each depth interval. To account for differences in catch and revenue among reporting vessels, the vessel reported depth distributions of effort and revenue were weighted by the mean reported revenue for lobsters and Jonah crabs across 2014-2015 to get a weighted distribution of effort and revenue across depth.

To attribute this effort and revenue to bottom habitat, bathymetry data from the NOAA NCEI U.S. Coastal Relief Model was used (*Retrieved 9/10/2013, http://www.ngdc.noaa.gov/mgg/coastal/crm.html),* which has a resolution of 3 arc minutes. The spatial extent of the raster was trimmed to the area of interest with depths of less than 500m as fishermen's responses indicate that there is minimal fishing occurring below 500m. Potential caveats of this assumption are addressed in the discussion. Each pixel was then assigned to a depth category consistent with the depth intervals that were used in the fishermen survey and distributed the reported mean effort for each depth interval evenly across all pixels in the respective depth interval. This is a critical oversimplification and potential source of bias in this analysis as it assumes that all pixels within a depth interval are equally productive for lobster and Jonah crab fishing (i.e. habitat along submarine canyons have the same productivity as habitat at a similar depth along the shelf edge between canyons).

Impacts of a closure scenario on effort or revenue were calculated by overlaying the closed areas on the bathymetry map and summing the effort or revenue value (unweighted or weighted) of all pixels falling inside the closure scenario. Of the proposed scenarios, evaluated closures included depths greater than 300m or 400m, (hereafter 300m+ and 400m+ respectively) the closure of Discrete Canyons (hereafter DC), and the combinations of the depth

based and Discrete Canyons scenarios (Figures 1-3). There are also scenarios proposed for depths greater than 500m or 600m but there was not enough effort data for these scenarios in this analysis. Because a national monument has been legislated for habitat within this region, the impacts of the national monument were also evaluated as well as the five above scenarios plus the national monument to get the total impacts of closures, existing and proposed.

Actual loss of revenue for each of the above scenarios was estimated by applying percentage of lost revenue to the total revenue from the region. Though estimated revenue was reported in the survey, the survey responses represent an unknown portion of the total vessels operating in the regions, so it was necessary to use VTRs to estimate total revenue for all vessels in the region. While vessels fishing in federal waters only for lobsters are not required to file VTRs, 95% of responses to the Whitmore et al survey reported filing VTRs, so it may be assumed that the majority of catch from this region is recorded in VTRs and accounted for in our analysis. To examine fishery revenue for this area over the last decade, data was extracted for all VTRs from 2006 – 2015 that reported fishing lobster pots. Precise spatial data was not necessary for most cases as the analysis mostly includes the spatial extent of entire statistical areas. Not all VTRs had assigned statistical areas but examination of the VTR landings by year suggested that >99.9% of VTR landings included a reported statistical areas if the data were constrained to 2011 – 2015. Statistical areas 534 and 537 are only partially included in the proposed closure areas, requiring more precise spatial data for these areas. Thus, these stat areas were split at 70.55^{o}W longitude (western extent of closure scenarios) and, using the VTRs that had reported coordinates, calculated the percentage of landings by year east of this boundary, relative to landings for the entire statistical areas and then applied these percentages to the remaining VTRs that lacked coordinates to calculate the total landings for these statistical areas east of the boundary.

Revenue was then summed across statistical areas within year and examined landings trends for 2011 – 2015. Regional revenue increased across these years but was similar for 2014 and 2015, so the average of the two years were used to project revenue loss.

Results

Of the vessels that replied to the mail-in survey, 15 reported fishing in the region of interest and supplied effort and revenue percentages by depth. 12 of these 15 also reported total revenue for the region so only these 12 were used for calculating weighted depth-distributions of effort and revenue.

Based on the survey results, the 200 – 300m depth zone has the highest fishing effort but the 100 – 200m depth zone has marginally higher revenue value (Table 1). A total of 26.6% and 32.6% of effort (unweighted and weighted) is in 300m depths or greater and 3.7% and 6.1% of effort (unweighted and weighted) is in greater than 400m. Similarly, a total of 20.9% and 27.9% of lobster and Jonah crab revenue (unweighted and weighted) is reported from depths greater than 300m and 2.7% and 4.8% of lobster and Jonah crab revenue (unweighted and weighted) comes from depths greater than 400m. Most (78.8%) of the habitat within the statistical areas that encompass the region of interest is in less than 100m depths with only 3.1% of the habitat

in deeper than 300 meters and 1.4% of the habitat deeper than 400m (recall that habitat deeper than 500m is not included as potential lobster habitat for the purpose of this analysis). It is noteworthy that the 300-400m depth interval represents a moderate amount of effort (22.9% and 26.5%) and revenue (18.1% and 23.1%) but also represents a very small portion of the habitat. This suggests that this depth increment may have the highest density of fishing activity (i.e. highest effort-to-habitat area or revenue-to-habitat area ratios), followed by the 200 – 300m depth increment.

For scenarios where the existing National Monument were not included, the weighted estimates were consistently higher than the unweighted estimates, suggesting that vessels that reported higher revenues were generally fishing deeper than vessels that reported lower revenues (Table 2). In general, the area within the Discrete Canyons scenario accounts for about 10% of the effort and 8% of the revenue, representing $1.4 – 1.8 million in annual lobster and Jonah crab revenue. The 300m+ scenario encompasses 23 – 28% of the effort, and 17 – 23% of the revenue, representing $3.4 – $4.5 million in annual lobster and Jonah crab revenue. The combined 300m+ and DC scenario are only slightly higher than the 300m+ scenario as the DC scenario includes very little habitat that is not already accounted for in the 300m+ scenario. The 400m+ scenario encompasses 5.5-7.5% of the effort and 4.1-6.2% of the revenue, accounting for $0.8 - $1.2 million in annual lobster and Jonah crab revenue. Because adding the DC scenario to the 400m+ scenario adds a significant amount of shallower habitat, the combined scenario has considerably higher impacts, encompassing 11.9-14.6% of the effort and 9-12.3% of the revenue, representing $1.7 – 2.4 million in annual lobster and Jonah crab revenue.
The newly-designated national monument itself is estimated to account for 13-14.3% of the regional effort and 12.2 – 14.3% of the revenue, representing $2.4 – 2.8 million in annual lobster and Jonah crab revenue (Table 3). Because the national monument includes considerable amounts of productive habitat shallower than 300m, combining the national monument with the different scenarios increases the expected impacts for all scenarios, increasing effort and revenue impacts by about an additional 10%. The 300m+ with DC and the monument combined scenario would have the highest impact, encompassing 33-38.4% of regional effort and 27.5 – 33.4% of revenue, accounting for about $5.4 – 6.5 million in annual lobster and Jonah crab revenue.

Discussion

The range in values presented for each scenario above represents the difference between unweighted and weighted estimates and do not represent the uncertainty in the estimates. The depth distributions of effort and revenue data come from self-reported mail-in surveys from a limited number of fishermen that may not accurately represent all the vessels in the survey area. Thus, given the small sample size, it is difficult to know how accurate the assumed depth distributions of effort and revenue are. The analysis is also based on data from the recent years and not necessarily predictive of the future. From conversations with industry, many of the vessels working this region have been fishing the same general area for many years. However, given large-scale shifts in lobster distributions to the south and west and the increasing pressure on Johan crabs, this region may become more important to the offshore fishery.

Closures will also impact vessels unequally. As mentioned in the results, the weighted estimates of effort and revenue impacts are consistently higher than unweighted estimates across the scenarios. This suggests that vessels reporting higher landings in this region tend to fish deeper and would be more impacted by closures. Of the 14 survey respondents that provided a depth distribution of their fishing effort, three reported no effort below 300m and five reported 50% or more of their effort below 300m.

It is similarly difficult to predict the directionality of bias in this analysis. The total revenue impacts are partially derived from Vessel Trip Reports and assume that 100% of vessels fishing this area are submitting VTR's. Thus, any level of reporting below 100% would necessarily bias the total revenue estimates lower than actual.

The necessary assumption that all habitat is equally productive is almost certainly incorrect, as deep habitat along canyons is probably more structurally complex and productive than such habitat along the shelf edge, which would also bias the Discrete Canyons, as well as the 400m+ and DC, scenarios low. Lobster vessels have to distribute their fishing gear across a fair amount of space to fish effectively. Thus, it is also possible that, with the closure of deeper habitats, there may be insufficient habitat along the closure boundary to fish efficiently and impacts may be greater than estimated.

Conversely, some lobsters in this region seasonally migrate into shallower water where they would become available to the fishery, though the portion of the population that undergoes this migration is poorly understood. In this case, the analysis would overestimate the impacts on revenue as the results assume that lobsters protected in one area do not become available in other areas. It should also be noted that fishermen commonly follow this annual migration to a degree, fishing in shallower water in the warmer seasons and deeper water in the colder seasons. Thus, closing deeper portions of the lobster fishing habitat in this region would have seasonal impacts on the displacement of fishing effort that are not assessed in this analysis. Finally, the analysis does not explore the impacts of closing habitat deeper than 500m as quantitative data on lobster fishing effort below this depth are not available. While results of the survey indicate that a smaller amount of effort and revenue is allocated to waters deeper than 400m (on average 4% of traps and 3% of revenue from waters deeper than 400m), this does not mean that fishing does not take place in those areas. Of the 19 respondents who did fish in the area of interest, 42% reported setting their deepest traps in water greater than 400m.

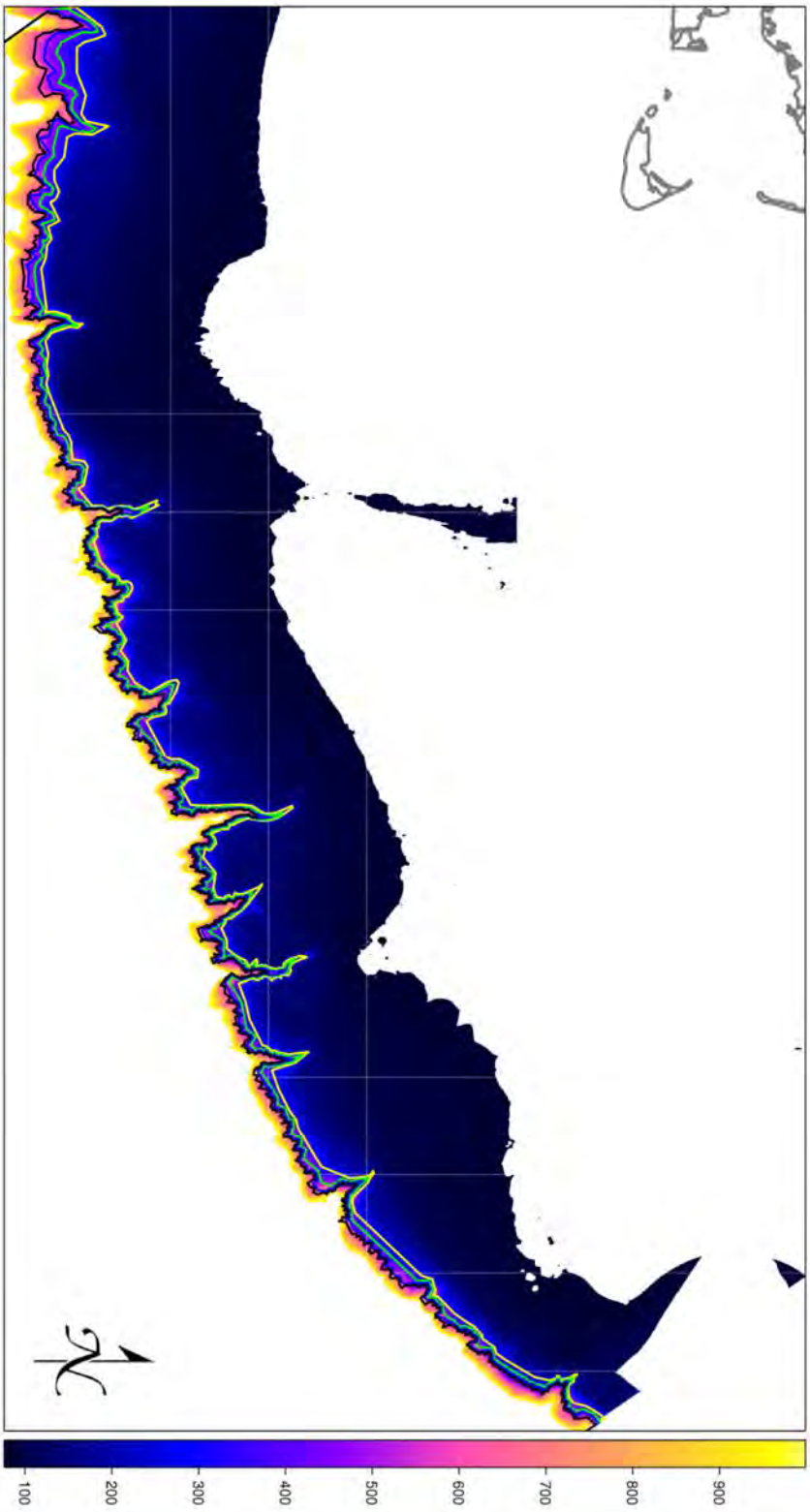

Figure 1. Bathymetry map (rotated) of southern Georges Bank with boundaries for broad-zone designations marked in yellow (300m), green (400m), blue (500m) and black (600m). Depths <75m and >1,000m not shown.

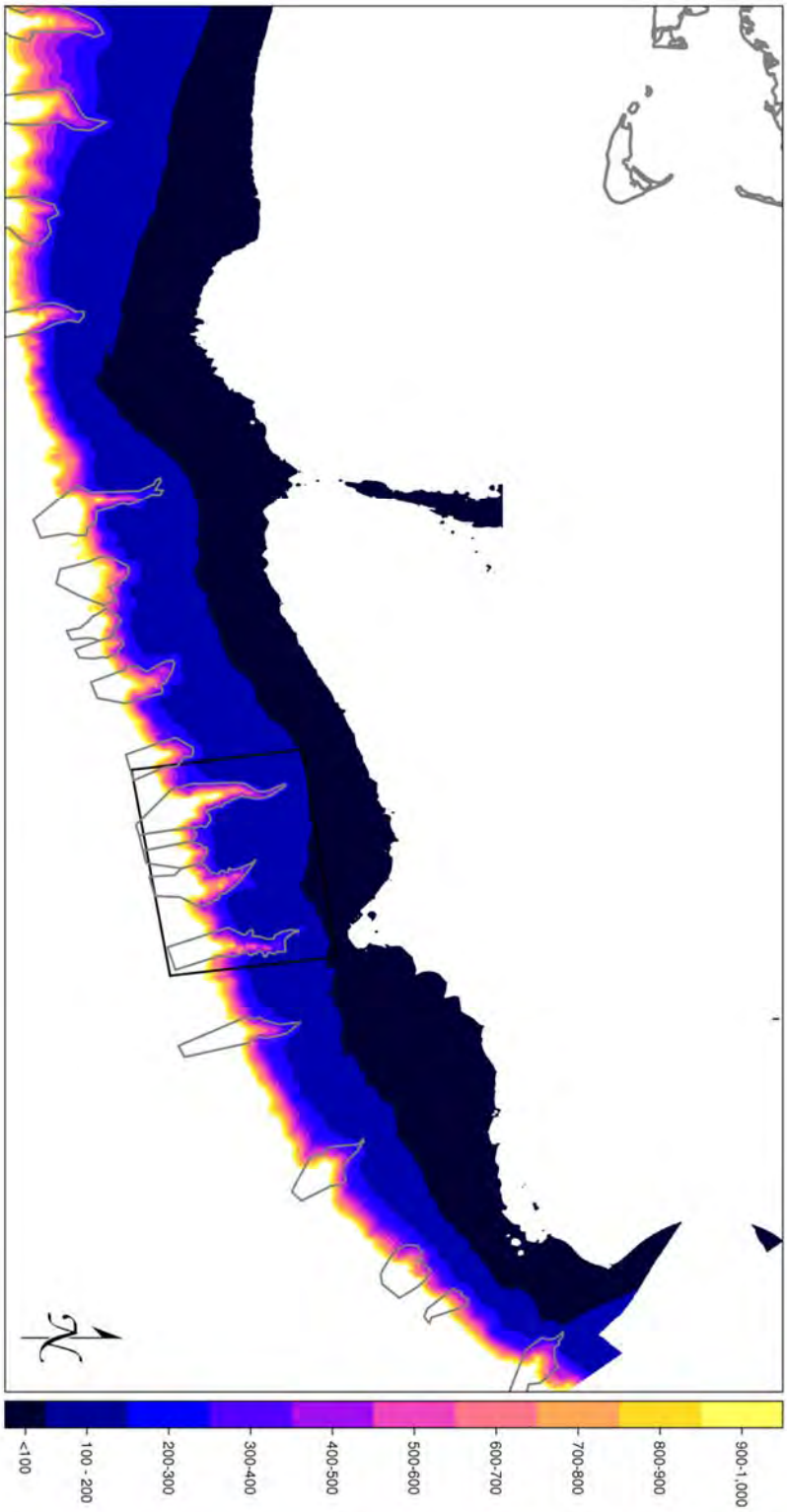

Figure 2. Bathymetry in 100m depth bins with the Discrete Canyons scenario and boundaries of the National Monument. Depths <75m and >1,000m not shown.

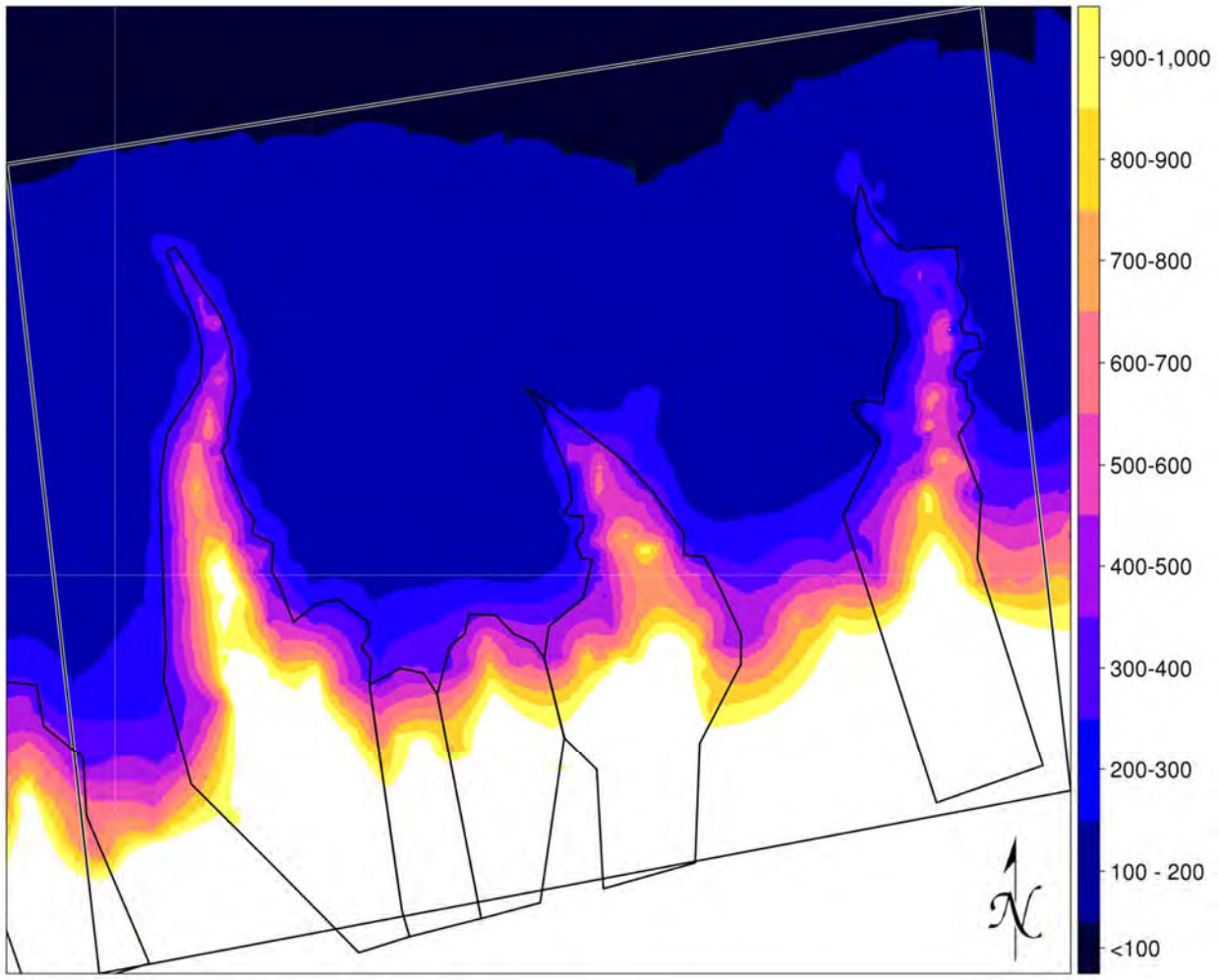

Figure 3. Higher resolution map (example for bathymetry detail) of the National Monument area with included Discrete Canyons. Depths <75m and >1,000m not shown.

Table 1. Depth distributions of effort and revenue, unweighted and weighted, and proportion of habitat by depth available in the region or interest.

DepthBin	Effort		Revenue		Proportion
	Unweighted	Weighted	Unweighted	Weighted	of habitat
<100m	17.3%	9.1%	23.0%	17.1%	78.8%
100-200m	20.5%	22.2%	32.7%	28.7%	15.5%
200-300m	35.5%	36.1%	23.4%	26.3%	2.7%
300-400m	22.9%	26.5%	18.1%	23.1%	1.7%
>400m	3.7%	6.1%	2.7%	4.8%	1.4%

Table 2. Proportion of effort and revenue impacted by different scenarios, not accounting for the National Monument. Revenue value is in millions annually.

Metric	Weighting	Discrete Canyons	300m	300m plus Discrete Canyons	400m	400m plus Discrete Canyons
Effort	Unweighted	9.3%	22.9%	24.3%	5.5%	11.9%
	Weighted	11.1%	27.8%	29.3%	7.5%	14.9%
Revenue	Unweighted	7.0%	17.5%	18.6%	4.1%	9.0%
	Weighted	9.2%	23.4%	24.6%	6.2%	12.3%
Revenue Value	Unweighted	$1.4	$3.4	$3.6	$0.8	$1.7
	Weighted	$1.8	$4.5	$4.8	$1.2	$2.4

Table 3. Proportion of effort and revenue impacted by different scenarios, including the National Monument. Revenue value is in millions annually.

Metric	Weighting	Monument	Discrete Canyons	300m	300m plus Discrete Canyons	400m	400m plus Discrete Canyons
Effort	Unweighted	13.0%	19.1%	32.1%	33.0%	17.3%	21.6%
	Weighted	14.3%	21.7%	37.4%	38.4%	20.3%	25.2%
Revenue	Unweighted	12.2%	16.8%	26.8%	27.5%	15.5%	18.7%
	Weighted	14.3%	19.3%	32.6%	33.4%	18.1%	22.1%
Revenue Value	Unweighted	$2.4	$3.3	$5.2	$5.4	$3.0	$3.6
	Weighted	$2.8	$3.7	$6.3	$6.5	$3.5	$4.3

2. Potential Impacts to the Gulf of Maine Lobster Fleet from Proposed Coral Closures

The New England Fisheries Management Council (NEFMC) Omnibus Deep Sea Coral Amendment is considering two potential closures to protect deep sea corals in Lobster Management Area 1[1]. These two areas of sensitive benthic habitat are the Outer Schoodic Ridge and Mount Desert Rock in eastern Maine (Figure 4). An important component of evaluating these areas for habitat protection is understanding the potential economic impact to coinciding fisheries. These two discrete areas under consideration are recognized as productive fishing grounds particularly for the Maine lobster fleet. NEFMC staff has looked at vessel trip report (VTR) data to try and characterize the lobster fishing effort and revenue in these areas; however, this approach likely does not accurately characterize the Maine lobster fishery. Federal permit holders that designate lobster-only are not required to report through VTRs in Maine. Because of this exemption, only 10% of all Maine federal permit holders and 3% of the total Maine lobster fleet report through VTRs. The permits are not uniformly distributed as there is a spatial difference between eastern and western zones. The federal permits requiring VTRs landed 8% of the 2015 federal permit lobster landings in the eastern zones (A, B, and C) while 13% of the 2015 federal landings were by VTR permits in the western zones (D, E, F, and G) (Figure 4). This lack of representative coverage renders the VTR lobster dataset inadequate to assess the economic impact of the potential coral closures on the Maine lobster fleet. The analysis presented here uses Maine landings data to try to characterize the potential range of economic impacts should the two proposed areas be closed. The following figures were provided to the NEFMC Habitat Committee with notes by the Maine Department of Marine Resources, but not as a fully developed report.

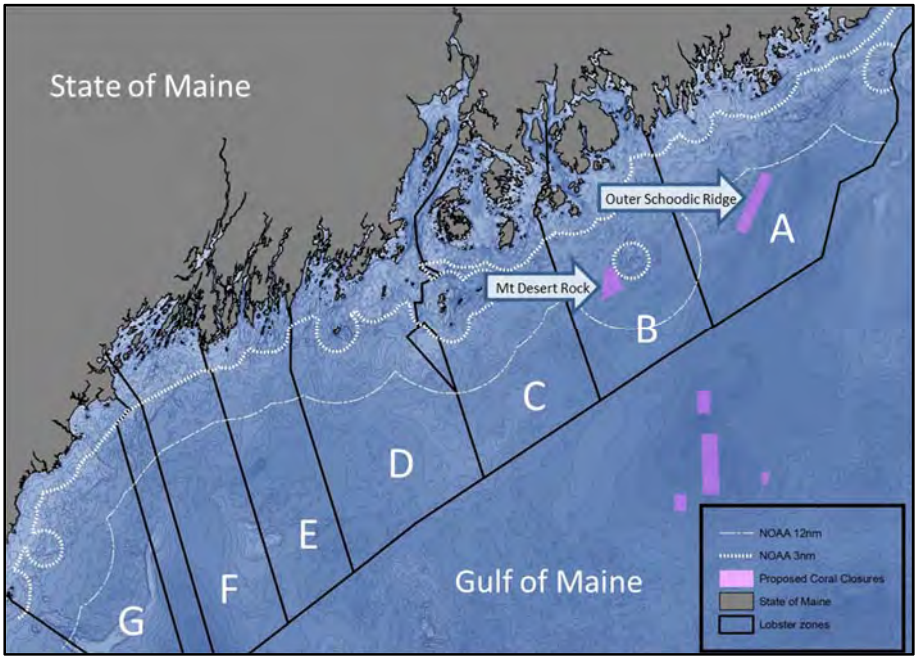

Figure 4. Maine Fishing Zones A through G, east to west with proposed coral closures. License holders declare a zone and must fish 51% of their gear in their declared zone.

[1] http://www.nefmc.org/library/omnibus-deep-sea-coral-amendment

Available Data and Methods

The two areas under consideration are in the eastern part of the Gulf of Maine within federal waters of Lobster Conservation Management Area 1. The Mount Desert area is within the 3-12nm distance from shore in Maine Fishing Zone B while the Outer Schoodic Ridge area is more than 12nm offshore in Zone A (Figure 4). The GIS shapefiles in the maps and area calculations for potential closures were provided by the NEFMC. Due to knowledge of the areas and evidence from Maine at-sea sampling data, it is known that these areas were historically, and are currently, fished by lobster fishermen from adjacent zones. As a result, this analysis considers fishery data from Zones A, B, and C. All federal permit holders must also hold a Maine state license and can fish in either state or federal waters but are required to fish, at a minimum, 51% of their gear in their declared zone. Very few Maine vessels (<3) fish in Area 3 because of the conflicting management rules between LCMA 1 and 3 that prevents boats from fishing both areas.

The Maine lobster industry currently has no fleet-wide reporting requirements that provide spatial resolution finer than the zone level. The State of Maine collects 100% trip-level data through lobster dealers. In this analysis, dealer data were summarized by fishing zone and provided information such as: pounds landed, value, total number of trips, and total number of permits fished annually. Dealer data were categorized by zone according to port landed, so catch could originate from an adjacent zone. Because of this adjacency issue, all analyses using the dealer data included Zones A, B, and C. These data were available for fishing years 2008-2015. We chose to use data from the most recent year of dealer reports, 2015, which consisted of 269,939 transactions.

Maine harvester logbooks are required on an annual basis from a randomly selected 10% of fishermen, stratified by fishing zone and Maine license class. The license classes are based on age (<18 years old, 18-70 yo, and > 70 yo) and number of unlicensed crew allowed to work on the boat in addition to the captain (none, 1, or 2). There is no stratification for federal versus state-only permits in the harvester report selection process. All Maine lobster license holders, except those chosen the previous year, are included in the annual random draw, including licenses that had no landings the previous year and permits that are required to submit VTRs. Those permit holders that are required to submit VTRs do not submit duplicate reports to the Maine harvester logbook, but continue to report only through the VTR process. To complete the representative 10% in this analysis, the VTR permits that were part of the selected 10% were added to the Maine harvester logbook dataset. VTRs collect similar information, except the spatial data comes as a single coordinate of latitude and longitude. To complete the dataset with comparable data, the single point for each trip was plotted in GIS and assigned a zone and distance from shore. The combined VTR and harvester data were summarized into numbers of pounds landed, value, number of permits, by month, zone fished, average depth, and distance from shore (0-3nm, 3-12nm, and >12nm). The zone fished was reported by the fishermen and was assumed to be where the gear was set, not necessarily the license's declared zone. These data were available for fishing years 2008-2014, but we chose to use the most recent four years. In addition to the expansion estimates described later, monthly average trip value and depth were derived from the 2011-2014 harvester data.

For both dealer and harvester data, the monetary value of the catch was calculated for each trip using an average price per month per zone for each year. All data were categorized by permit type as state-only, federal with VTR, and federal without VTR. Although we considered the total value of the fishery in the three zones including all permit types for the three zones, for further expansion, we only used federal permits (with and without VTR) from both the dealer and harvester datasets because only federal permit holders would be directly impacted by the potential closures (state-only permits do not have access).

Through outreach, the Maine DMR and the Maine Lobstermen's Association (MLA) gathered information about the use of the potential closure areas from industry. This was not a systematic survey, but rather a targeted consultation with representative industry members who fish in these areas to determine how many and which harbors could be impacted, rough estimates of numbers of boats, and at what time of year these areas are fished most heavily. The industry members consulted were fishermen identified by the Maine DMR at-sea sampling program, MLA board members and some industry members recommended by the original DMR and MLA contacts.

Expansions

We used three methods to expand total revenue estimates from the more spatially specific but limited (10%) harvester data into the total impacted population. The first approach (Expansion Method 1) applied the average proportions of federal permit holders determined by the harvester logbook data for 2011-2014 to the dealer data. This expansion, using the proportions from the 10% harvester data, assigned the total reported value, landings, and trips from the dealer database into distance from shore categories for each zone. This expansion shows the spatial distribution of the variables across zones and distance from shore, but not the specific value of the smaller coral closures.

The second method (Expansion Method 2) estimated a range of revenue derived from the catch in specific closure areas. We used a combination of industry information on numbers of boats with combined harvester logbook data on average value per trip and number of trips per license by month and distance from shore. Some boats reported fishing in these areas nearly all year, but we concentrated on the months of highest effort described by the industry interviews, November through April. Recognizing the uncertainty of industry-estimated boat counts and that, while a certain number of boats could be fishing in an area, they likely did not fish all of their gear or earn all of their income in the areas under consideration, we applied a range of percent income and two options for boat counts per area. The combined harvester data were averaged over 2011-2014 for > 12nm in Zone A and 3-12nm in Zone B to determine the average trips per month per license and the average value per trip. The value was tallied for an annual estimate for the two areas for each boat count and income percentage category.

The third method (Expansion Method 3) assigned a revenue value by square area and made the assumption that every square mile is equally productive for fishing. Because of the assumption (likely inaccurate) of equal productivity and the uncertainty related to the ability of vessels to fish adjacent zones, we combined the data for Zones A, B, and C. To attribute the value by area,

we used average proportions by distance from shore derived from combined harvester data (2011-2014). It was necessary to average the proportions over four years because of confidentiality and uncertainty due to the relatively small sample size. These value proportions, categorized by distance from shore, were applied to the total value and number of pounds landed, trips, from the 2015 dealer data in the combined three zones. The total area for each zone and distance from shore were calculated in ArcGIS. The square mileage of the proposed closures was 1.5% of the total area of the three zones combined outside 3nm, so the estimates for the entire area (Zones A-C) were multiplied by 1.5% to estimate the value within the proposed closures.

Characterization of the Maine fishery

In 2015, the Maine lobster fishery was worth more than $500 million in total ex-vessel value for both state-only and federally permitted vessels. The combined total value for the three eastern zones was more than $296 million with state-only licenses making up the largest proportion of permits (Figure 5). Zone C represented the greatest value in landings overall, with the highest proportion from state-only permits of the three zones. Zone A had the second highest overall landings value, and Zone B had the lowest overall value. While almost 75% of permits were state-only (Table 4), the federal permits without VTR requirements produced the highest proportion of value in Zones A and B (Figure 5). In all three zones, the VTR permits represented the smallest proportion of value of the three permit types.

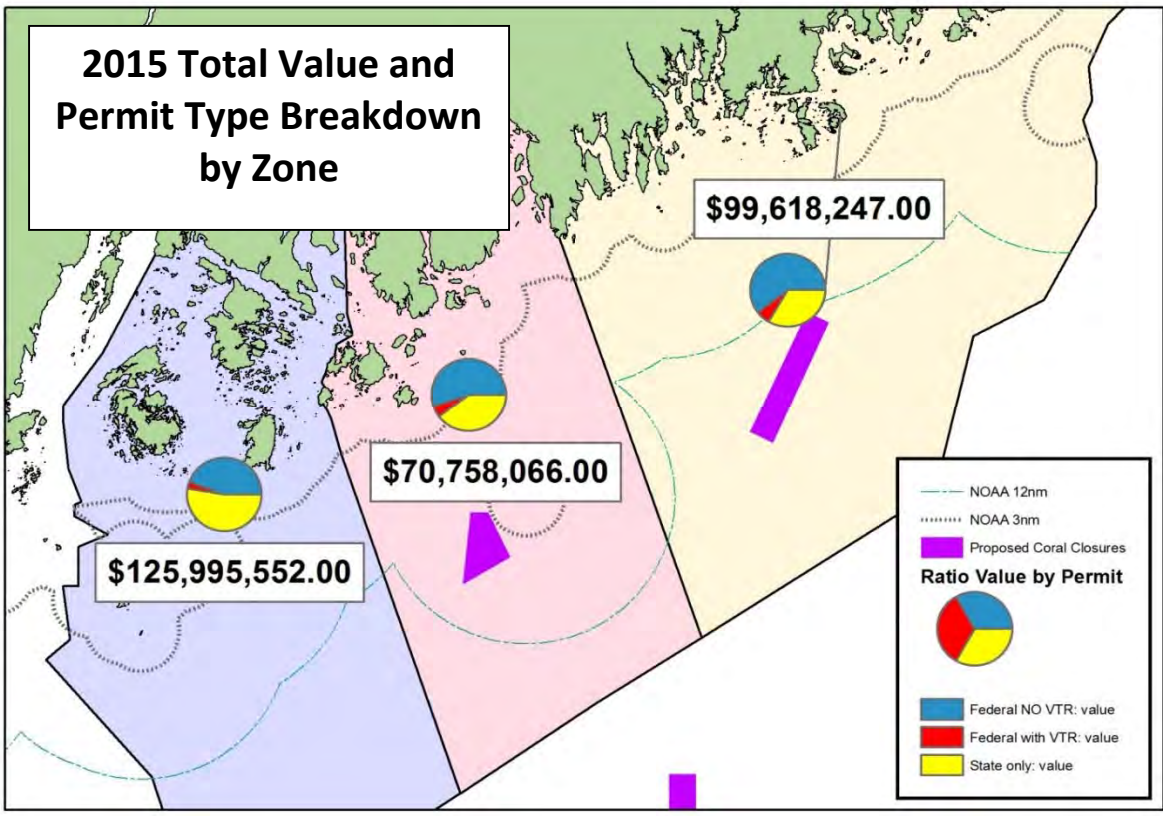

Figure 5. Total value from Maine dealer data for Zones A, B, and C with the ratio of value by permit type for federal with and without VTR requirements and state-only permits.

The total number of permits for Zones A, B and C in 2015 was 2,316 with 640 of those permits being federal permits, with or without VTRs (Table 4). In 2015, federal permits required to submit VTRs harvested 8% of the landings for Zones A, B, and C while all federal permits landed 57% of the total landings in the same area. Within the three eastern zones, 139,780 trips were completed by the lobster fleet with 56,381 trips from the federally permitted vessels (Table 4).

Table 4. Maine 100% trip-level dealer data for 2015 by permit type. Federal includes both VTR and no VTR permits.

Permit numbers

Zone	Federal No VTR	Federal w VTR	State Only	Total	Federal	% federal
A	271	28	664	963	299	31%
B	161	10	408	579	171	30%
C	160	10	604	774	170	22%

Trips

Zone	Federal No VTR	Federal w VTR	State Only	Total	Federal	% federal
A	21,702	2,357	29,539	53,598	24,059	45%
B	13,098	991	17,933	32,022	14,089	44%
C	17,283	950	35,927	54,160	18,233	34%

Value

Zone	Federal No VTR	Federal w VTR	State Only	Total	Federal	% federal
A	60,261,907	6,039,883	33,316,457	99,618,247	66,301,790	67%
B	39,009,830	3,671,325	28,076,911	70,758,066	42,681,155	60%
C	55,979,051	3,791,784	66,224,717	125,995,552	59,770,835	47%

Landings

Zone	Federal No VTR	Federal w VTR	State Only	Total	Federal	% federal
A	15,054,051	1,543,886	9,056,975	25,654,912	16,597,937	65%
B	9,327,846	874,674	6,740,661	16,943,181	10,202,520	60%
C	13,631,809	910,528	17,079,316	31,621,653	14,542,337	46%

The combination of harvester and VTR data determined the proportions of value, number of trips, and landings by zone and distance from shore. Within a given zone, the proportion of effort (trips) that took place in each distance category was not necessarily representative of the resulting landings or value (Table 5). Although there were fewer trips in the > 12nm region, the relative proportion of value was higher (than the trip proportion) in all zones, especially in Zone A (Table 5). For permits and trips, all zones had the highest proportion in state waters, less in 3-12nm, and the smallest distribution in >12nm. For value and landings, Zone A was different from the other two zones where the region between 3-12nm had the highest proportion for value and landings while Zones C and B had the highest in state waters.

Table 5. Proportion of trips, value, and landings by distance from shore (nautical miles) of federal permits averaged over 2011-2014 from the combined harvester and VTR data by zone.

TRIPS			
	0-3	3-12	>12
Zone A	53%	39%	8%
Zone B	59%	31%	10%
Zone C	66%	25%	9%
VALUE			
	0-3	3-12	>12
Zone A	38%	47%	15%
Zone B	49%	36%	14%
Zone C	60%	30%	10%
LANDINGS			
	0-3	3-12	>12
Zone A	40%	48%	13%
Zone B	52%	36%	13%
Zone C	63%	28%	9%

Monthly characteristics of depth and value

The reported value and depth from the harvester logbook dataset indicated trends depending on zone, month, and distance from shore. The highest mean value was found in late fall (October through December) in Zone A outside of 12nm (Figure 6). There was higher variability of value in the late fall, winter and spring months indicated by the length of the violin wands. Generally all areas had a greater value per trip in the fall months when the catch was higher. Prices are typically higher in the winter and spring but the catch volume is lower. Because there are fewer federally permitted vessels and the state-only boats do not have access to offshore fishing grounds, there is opportunity to catch more volume and value per trip offshore in the fall months.

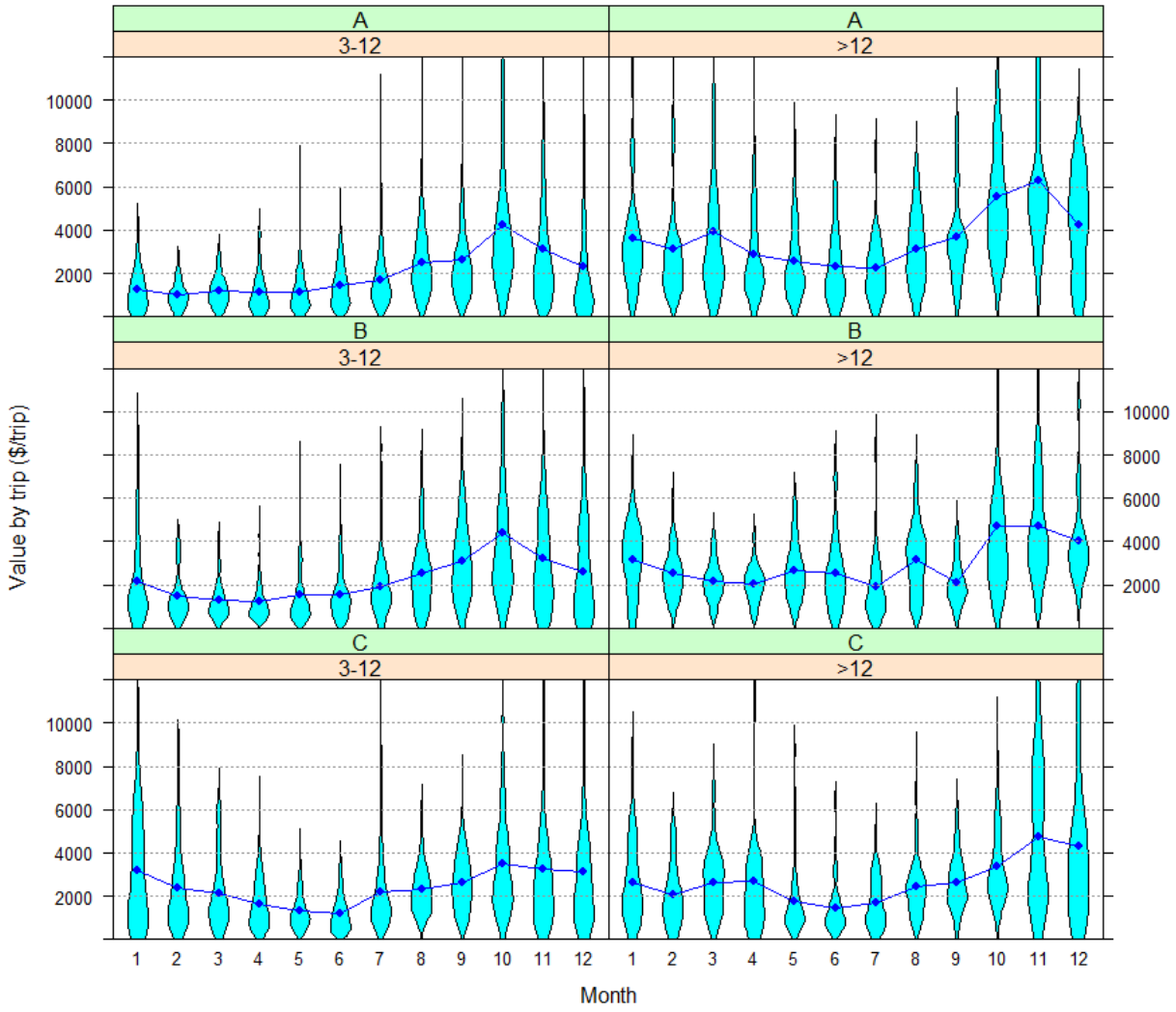

Figure 6. Violin plots of monthly value per trip by zone and distance from shore for federal permits reported by the combined VTR and harvester data over years 2011-2014. The blue dots represent the mean while the width and length of the shape represents the distribution of the data.

Generally the lobster fleet fishes in shallow water during the summer following the lobster movement (molting) and into deep waters for the winter. In the 3-12nm distance from shore,

the average depth fished was less than 100m in all three zones. The greatest average depths fished were outside of 12nm in Zones A. Overall, greater depths were reported in winter and spring but there was high variability year-round (Figure 7). Depths reported in harvester logbooks and VTRs are difficult to verify without more detailed spatial data, but the average trends follow understood patterns of the fleet behavior. The range of depth in the proposed closures is between 100-250m. Using the bathymetry map data from the NOAA NCEI U.S. Coastal Relief Model[2] we characterized the depths of the potential closures (Figure 8). While the fleet fishes shallower depths on average, the distributions of depth within the closures and the reported depths by the Maine lobster fleet overlap, especially in the winter and spring months (Figures 7 and 8).

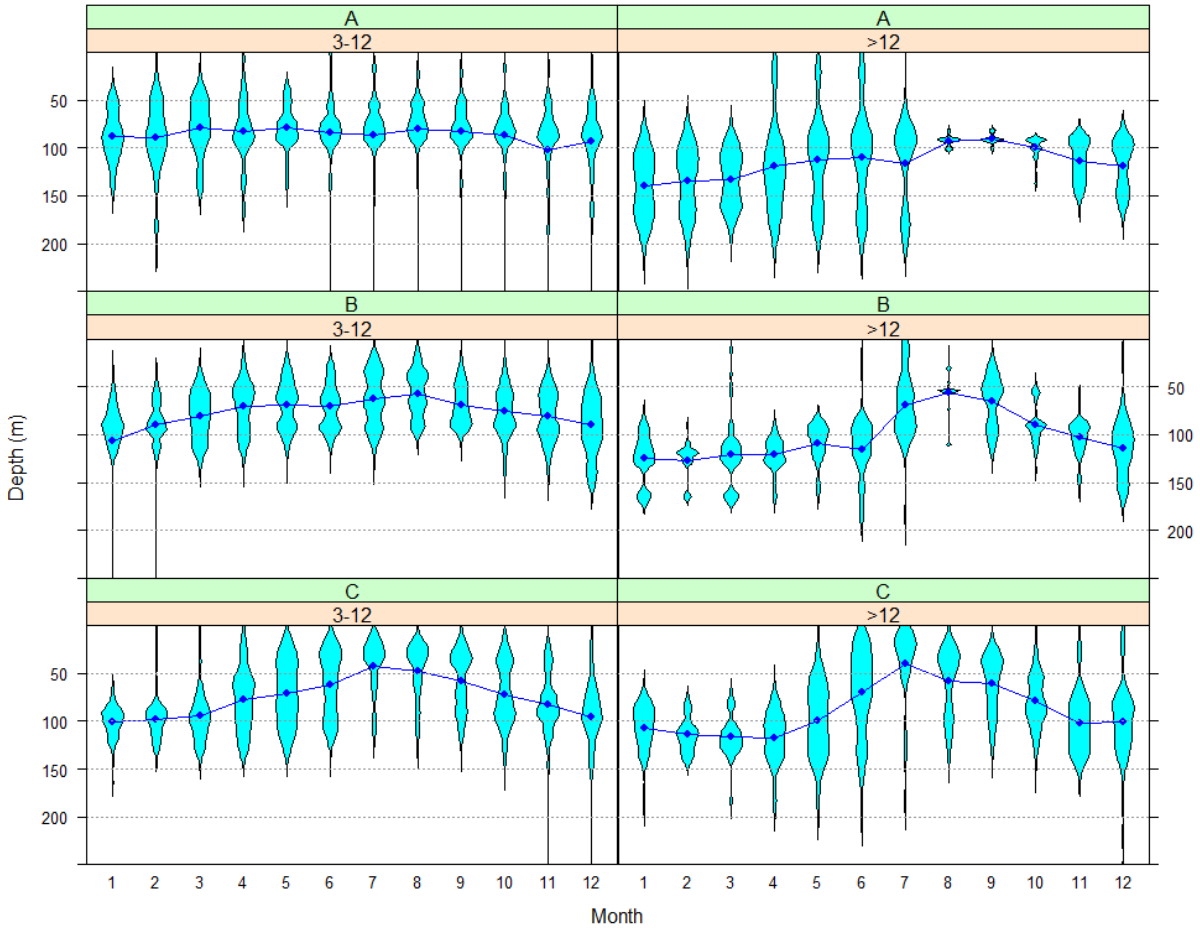

Figure 7. Violin plots of monthly depths per trip by zone and distance from shore for federal permits reported by the combined VTR and harvester data over years 2011-2014. The blue dots represent the mean while the width and length of the shape represents the distribution.

[2] data from the NOAA NCEI U.S. Coastal Relief Model (Retrieved 9/10/2013, http://www.ngdc.noaa.gov/mgg/coastal/crm.html), which has a resolution of 3 arc minutes.

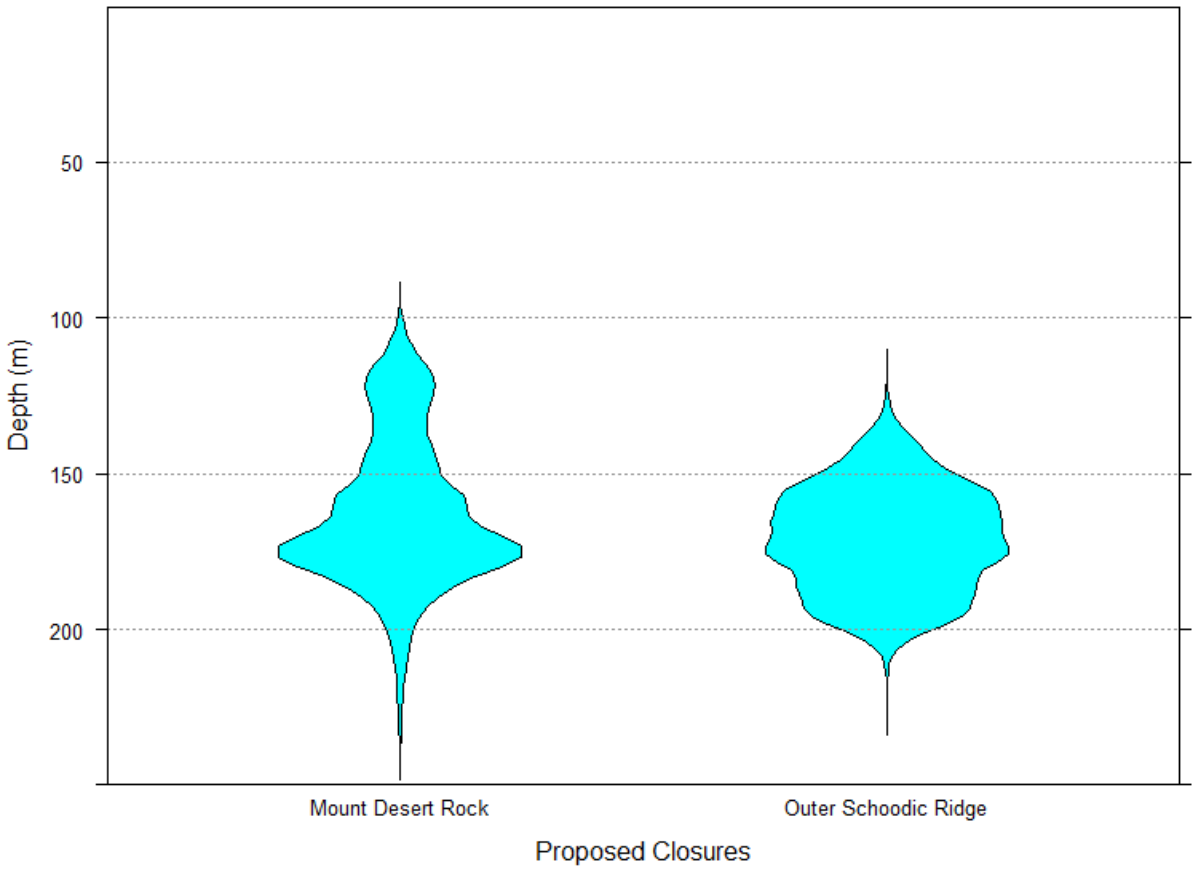

Figure 8. Depth distribution of the proposed closures based on the bathymetry shapefile[2].

Spatially specific industry contributions on potential coral closure

Interviews with lobster industry members indicated that lobster harvesting is the primary economic driver for both Washington and Hancock Counties, the counties adjacent to the closures. The proposed closed areas have recently become particularly important fishing grounds for vessels originating from these counties during the late fall, winter, and spring. Industry members reported that both areas are fished year-round by a smaller number of fishermen. Roughly 35-50 boats from both Zones B and C fish the Mount Desert Rock Area which has become an increasingly valuable fishing ground over the past decade. The Outer Schoodic Ridge Area is fished by at least 50 boats from both Zones B and A and is historically an important fishing area. Combined, the two areas are currently fished by boats from at least 15 different harbors in the two counties across the three zones. Most of these boats employ two crew members in addition to the captain. Areas around the borders of these potential closures are also heavily fished so displacement of effort would likely cause conflict.

Expansion Results

Expansion Method 1: Proportions by distance from shore

Data derived from Tables 4 and 5 were used to apportion trips, value, and landings to distance from shore categories within each zone (Figures 9, 10 & 11). The proportions derived from the 2011-2014 combined harvester and VTR data were used to allocate the totals from the dealer data into different spatial areas. For the Mount Desert Rock area, the value, landings and trips for Zone B between 3 and 12nm was estimated to be $15.3 million and 3.6 million pounds from more than 4,300 trips. The area outside of 12nm in Zone A, surrounding the Outer Schoodic Ridge closure, the numbers were $9.8 million and 2.1 million pounds from about 1,900 trips. Some uncertainty was introduced using this method of combining two data streams because fishermen report the zone fished in the harvester report and VTR, while the total fleet value, pounds, and trips collected by the dealers were attributed to the port and zone where the harvest was sold. With this in mind, some of the 3-12nm region data for Zone C dealer reported value could be attributed to Zone B and some of the greater than 12nm data from Zone B could be attributed to Zone A.

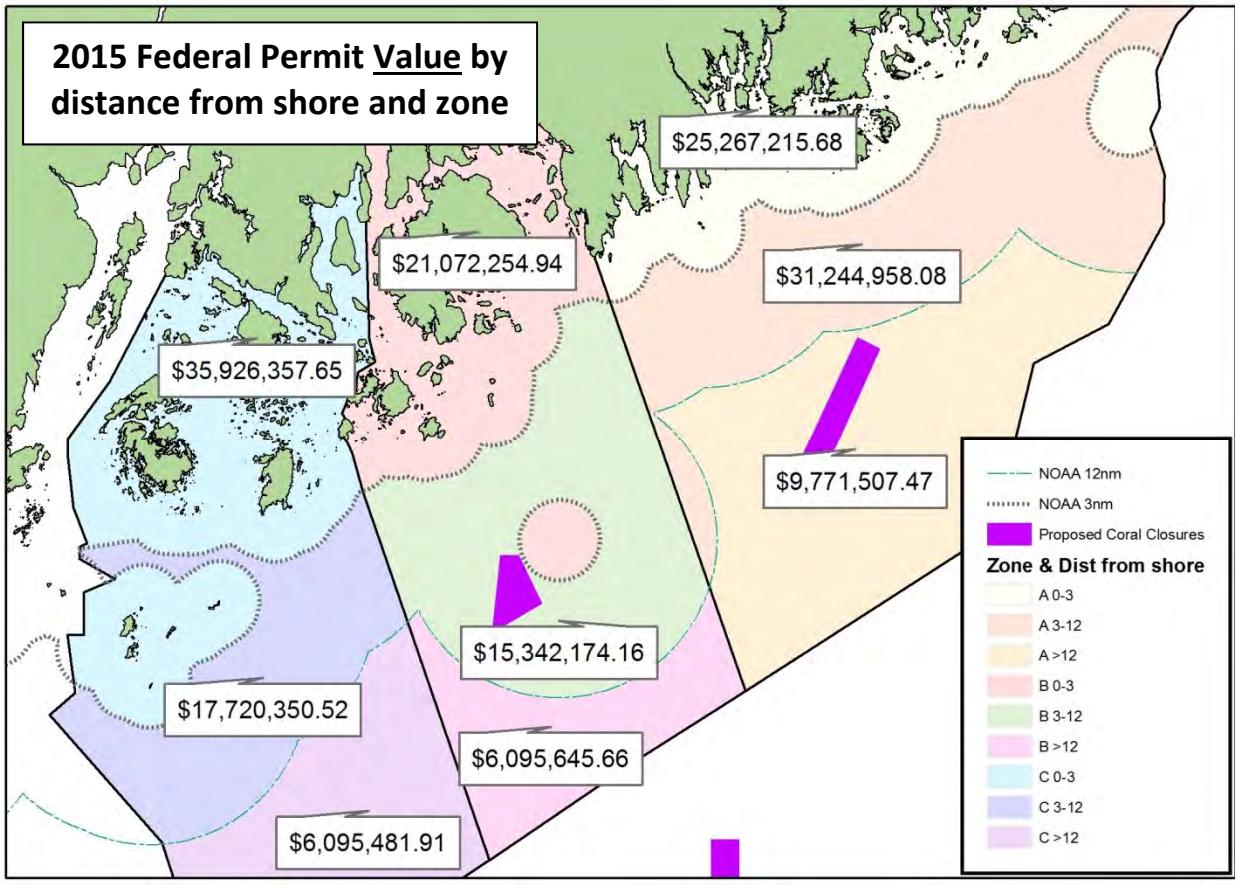

Figure 9. Value from 2015 Maine dealer data by distance from shore (nm) in each zone. Value allocation was based on the average proportions from 2011-2014 from the combination of harvester reports and selected VTRs. Only federal permit data were included.

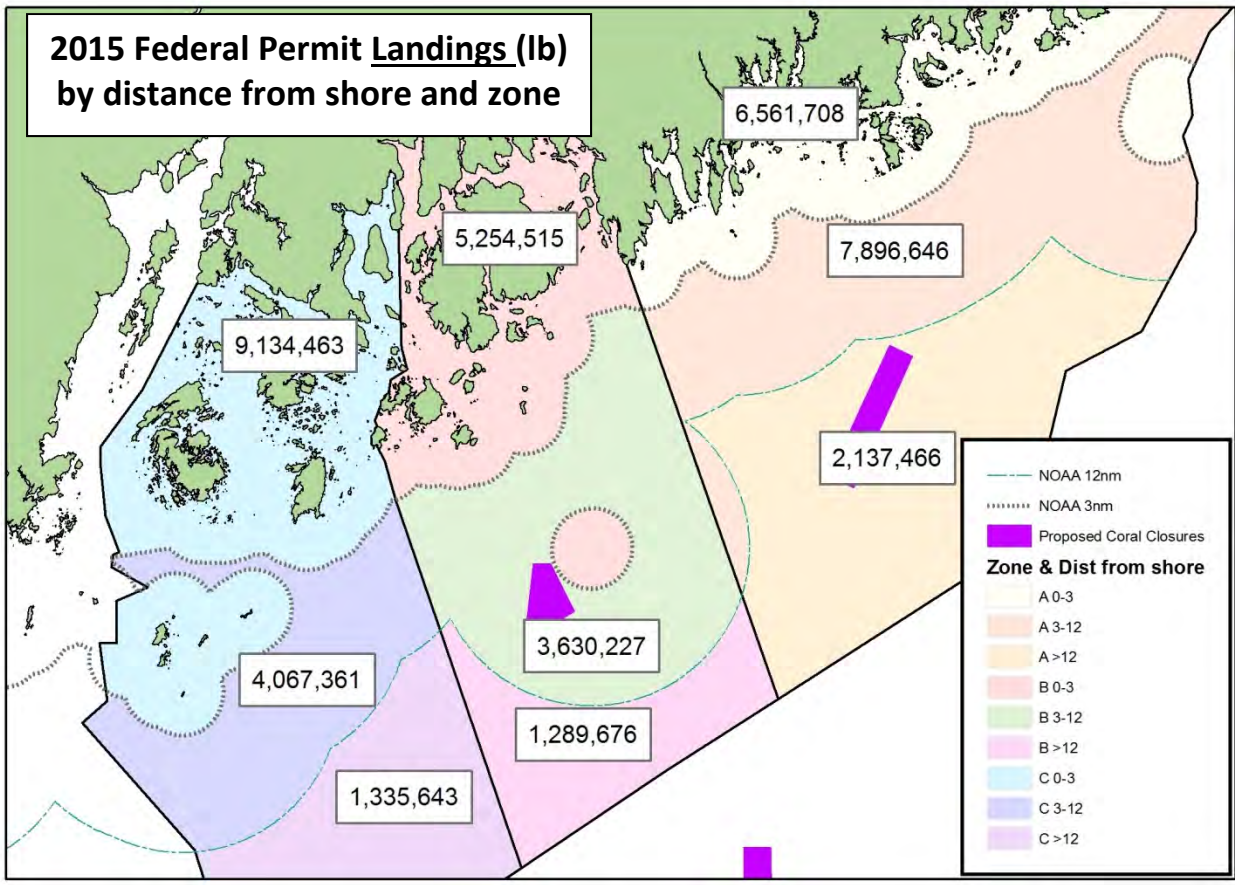

Figure 10. Landings from 2015 Maine dealer data by distance from shore (nm) in each zone. Landings were allocated based on the average proportions from 2011-2014 from the combination of harvester reports and selected VTRs. Only federal permit data were included.

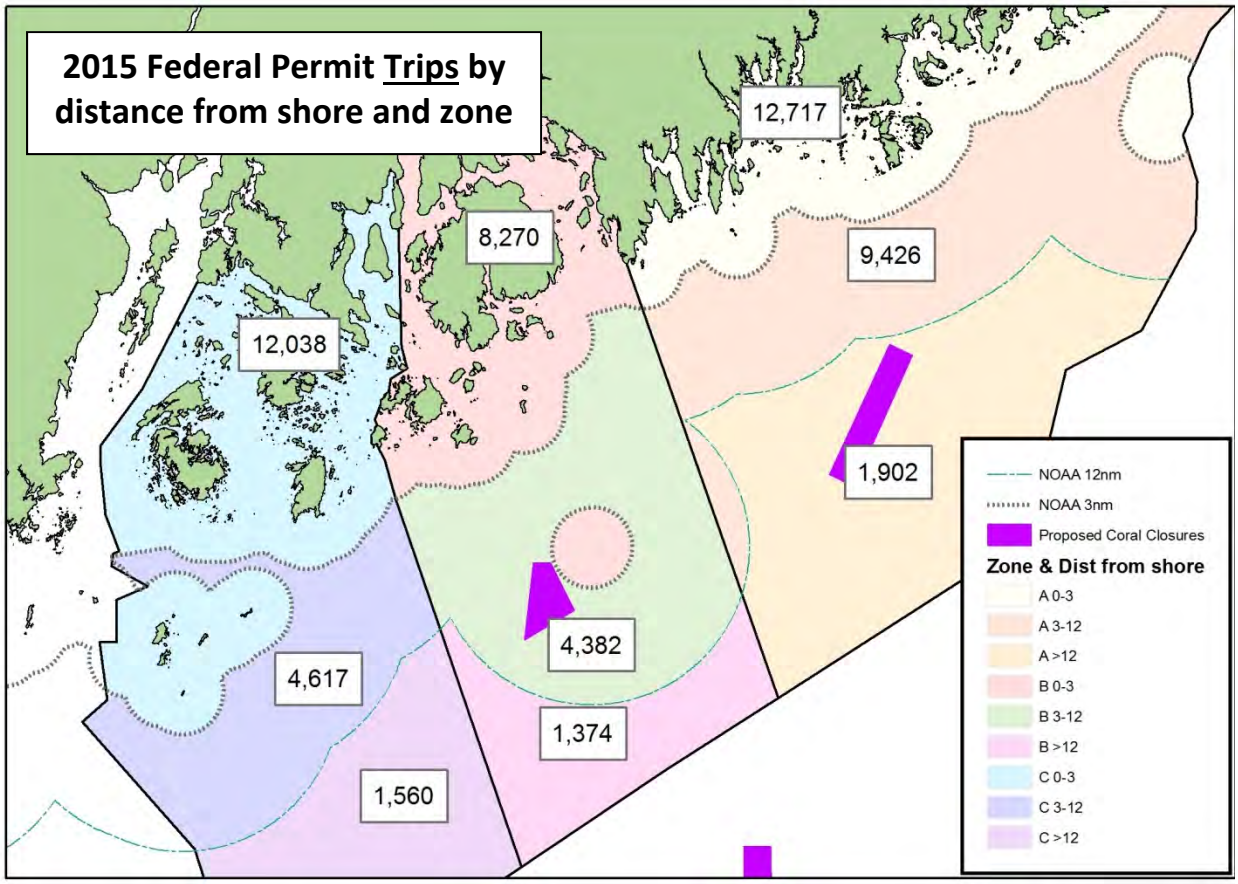

Figure 11. Trip from 2015 Maine dealer data by distance from shore (nm) in each zone. Trip allocation was based on the average proportions from 2011-2014 from the combination of harvester reports and selected VTRs. Only federal permit data were included.

Expansion Method 2: Average value of trip and number of boats

The second method for estimating the revenues associated with specific closure areas used a combination of industry input and average trip values from the harvester data. Interviews indicated each area supported a maximum of 50 boats in the late fall, winter, and early spring (MLA/DMR Interviews). We limited the analysis to the months of November through April, understanding that some effort does occur year-round. To account for uncertainty in the numbers of boats over time, we conducted the analysis for two levels of fishing effort: 50 and 25 boats per area. Additional uncertainty was recognized because the proportion of income and gear per license for the specific closure areas was unknown. Assuming that the boats were unlikely to derive 100% of their income from these discrete coral protection areas, we used 100% as a maximum, 50% as the moderate level, and 25% as the minimum.

Expansion of these industry numbers was based on average value per trip and average trips per month per license estimated from the 2011-2014 harvester logbook and selected VTR dataset for the two regions containing the proposed closures (Table 6). The value ranged from a maximum $6,610 per trip in Zone A, >12nm in November to a minimum $1,129 in Zone B, 3-12nm in April. In general, the average number of trips for each permit was highest in the fall

and lowest in January through March. The revenues were summed over both areas and the number of boats was held constant over all included months. The estimated revenues ranged from a maximum of $8.5 million to a minimum of around $1 million from 50 boats, 100% income and 25 boats 25% income, respectively (Table 7).

Table 6. Average value per trip and number of trips per permit per month from the combined harvester report and VTR dataset 2011-2014 for the two specific regions of the potential closures.

Average VALUE per trip (from combined harvester/selected VTR)						
	Jan	Feb	Mar	Apr	Nov	Dec
Zone A >12	$3,260	$3,719	$3,446	$2,632	$6,610	$4,378
Zone B 3-12 mi	$1,822	$1,286	$1,294	$1,129	$3,264	$2,151
Average # of trips per permit (from combined harvester/selected VTR)						
	Jan	Feb	Mar	Apr	Nov	Dec
Zone A >12	3	3	3	4	9	5
Zone B 3-12	3	3	3	5	7	4

Table 7. Expanded revenue estimates using value per trip and number of trips per month with a range of boat numbers and percent income derived from the closure areas.

	100% income	50% income	25% income
25 boats per area	$4,250,650	$2,125,325	$1,062,663
50 boats per area	$8,501,300	$4,250,650	$2,125,325

Expansion Method 3: Percent of Area

High uncertainty was associated with the Expansion Method 3 because of the assumption that every square mile of ocean habitat was equally productive lobster bottom; however, this approach did account for the error associated with boats fishing in adjacent zones and reporting in their home port by combining the three zones. Average proportions of value, trips, and landings by distance from shore derived from the harvester report and VTR dataset were calculated from the combined data for Zones A, B, and C for 2011-2014 (Table 8). The dealer data provided the total value, trips, and landings for the combined three zones (Table 9). The harvester logbook proportions were applied to the dealer data annually from 2011 through 2015 to estimate the trips, landings, and value for each distance from shore category for the whole area. We focused on the total estimates for outside of 3nm (Table 10). Using the 1.5% area calculation of the proposed closures, the estimated revenue was $1.2 million from 349 trips and ~300,000 pounds landed in 2015 (Table 10).

Table 8. Proportion of value, trips, and landings by distance from shore (nm) from the three zones combined based on harvester and VTR data from 2011-2014. Federal permits only.

		Value	Trips	Landings
Zones ABC	0-3	49%	59%	51%
	3-12	38%	33%	37%
	>12	13%	9%	11%

Table 9. Annual total value, trips, and landings from the three zones combined from the dealer data 2011-2015. Federal permits only.

	Value	Trips	Landings
2011	$ 98,088,305	53,384	31,089,672
2012	$ 107,877,076	56,606	40,374,885
2013	$ 127,118,351	58,273	44,492,387
2014	$ 162,049,914	56,483	44,116,485
2015	$ 168,753,780	56,381	41,342,794

Table 10. Expanded estimates for trips, landings and value for all three zones outside of 3nm and for the proposed coral closures (1.5% of the total area outside of 3nm).

Zone	Year	Expanded trips in >3	Est. trips in coral areas	Expanded landings in >3	Est. landings in coral areas	Expanded value in >3	Est. value in coral areas
A, B, & C	2011	22,015	330	15,100,568	226,509	$49,459,548	$741,893
A, B, & C	2012	23,344	350	19,610,490	294,157	$54,395,388	$815,931
A, B, & C	2013	24,031	360	21,610,403	324,156	$64,097,511	$961,463
A, B, & C	2014	23,293	349	21,427,824	321,417	$81,711,225	$1,225,668
A, B, & C	2015	23,251	349	20,080,614	301,209	$85,091,548	$1,276,373

Discussion

The first step in the expansion process that determined the distribution of revenue value, landings, and trips among the three impacted zones by distance from shore illustrates the high value and level of effort in the eastern Maine lobster fishery (Expansion Method 1). Federal permit holders fish in both state and federal waters. The state waters were the most valuable with the highest landings, but the areas outside of 3nm where the proposed closures are located were also important sources of value and significant levels of effort.

The two expansion methods (Expansion Methods 2 and 3) to calculate the fishery revenues and potential direct impact of the proposed coral closure areas likely provide a minimum and maximum range that should encompass the true value. The Technical Committee was wary of trying to determine revenue at a finer spatial scale than the scale at which the data were collected. We considered the best estimate of the revenue value potentially lost from these closures to be the Expansion Method 2 combining industry interviews estimating boats and months fished with the harvester logbooks reporting average number of trips and value by month. Providing the range of estimates based on the maximum and minimum number boats fishing and percent income associated with the closures was intended to account for the uncertainty in those data sources. Taking the full industry estimate of 50 boats in each area for the fall and winter time period and assuming 100% incomes likely produced an overestimate of revenue. Given that the combined area-based estimate (for Zone A >12 and Zone B 3-12) was $25 million (see Figure 8), the $8 million revenue estimate from these two discrete areas was likely too high. Finding middle ground and relying on the input from fishermen, the $4.2 million

revenue estimate for 50 boats in each area and 50% income for the included months seems likely to be the most realistic scenario to estimate the economic impact of these proposed closures (Figure 12). There are unresolved issues concerning uncertainty in the relationship between the amounts of gear fished, value, and months fished. There was substantial variability in the data for value per trip (as reported through logbooks and VTRs), thus estimates of value could be mis-characterized. Additionally, if half the gear for 50 boats was set in these areas at one time, the trap density could be up to 500-1,000 traps per square mile, which seems unrealistically high.

Expansion Method 3, based on calculated area assumed equal productivity of each square mile outside of state waters in the three zones, likely resulted in an underestimate of revenue. It is unlikely that the entire habitat within Zones A, B, and C is equally productive lobster bottom, especially when boats are fishing further from shore. Attempting to estimate the revenue value for a small subset of the total area introduced high uncertainty and error since neither the 10% harvester data nor the 100% dealer data was collected at a finer spatial scale than distance from shore and/ or zone. The scale of the fishery in eastern Maine and the stated importance of these discrete areas at certain times of the year make the annual estimate of less than $1.5 million (Table 10) seem very unlikely. Fishermen interviews indicated that the proposed coral areas could be two to four times as productive as other bottom habitat so the $1.5 million estimate could scale up closer to the $4.2 million estimate.

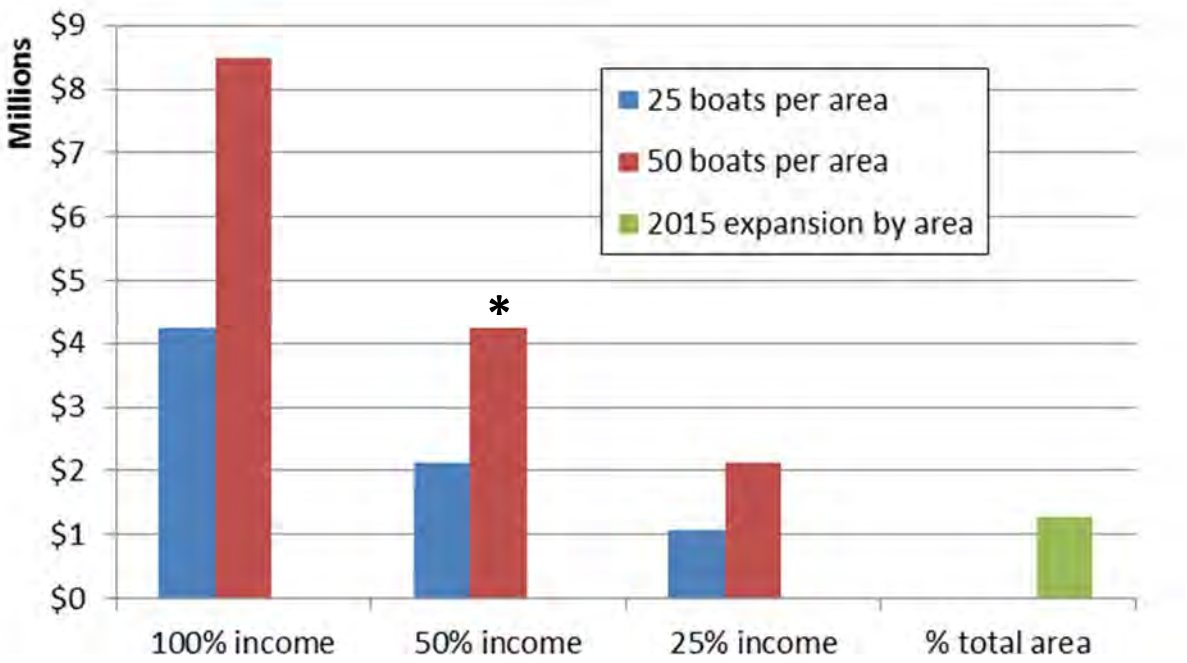

Figure 12. Comparison of revenue estimates based on Expansion Methods 2 and 3. Expansion Method 2 was based on the average value of trip and number of boats with split percent income while Expansion Method 3 calculated the percent value of the total area. The * denotes the scenario determined to best estimate revenues.

Recent observations of corals from ROV surveys were typically found at depths greater than 180m[3]. The Maine logbook data indicates some Maine lobster boats fish at or greater than 180m, but, even during the winter, the fleet does not fish at those depths on average. While the average depth fished by the Maine lobster fleet was less than depths of likely high coral abundance, the depth distribution within the closures does overlap with the fleet's fishing activity as the closures extend to shallower depths (see Figures 7 and 8).

Another source of uncertainty regarding the interaction between the lobster industry and deep sea corals was identified by the industry interviews and could not be quantified. The NEFMC Omnibus Amendment determined that hard corals were most likely to be found in the steepest gradients of depth on hard bottom habitat forming "walls". The lobster fishery is required to use sinking groundlines to prevent large whale entanglements, and this line may chafe when gear is fished near corals or the jagged edges of coral habitat, resulting in loss of gear. Because of this, most fishermen reported trying to avoid corals to prevent the loss of fishing gear.

Whale Co-Occurrence

An additional concern that needs to be addressed relates to the displacement of effort out of closed areas, and the resulting interactions with existing regulations. NOAA Fisheries, in consultation with the Atlantic Large Whale Take Reduction Team, developed a co-occurrence model of endangered right whales and fixed gear fishing effort for the Final Rule of the Atlantic Large Whale Take Reduction Plan in 2014[4]. The lobster industry comprises the majority of fixed gear with vertical lines in this region and is represented in the model using a variety of data sources, including State of Maine dealer and harvester reports, VTR, and fishing practices surveys completed by DMR in 2010. The model explored the overlap of right whales and gear in the form of whale sightings and densities of vertical lines in space and time expressed as a co-occurrence score in ten minute grid cells. The scores have no unit other than the relative amount of overlap between sightings and vertical lines. This can be driven by high numbers of whale sightings, high densities of vertical lines, or the occurrence of both. A plot of co-occurrence scores with the potential coral closure areas was created to show any potential conflicts (Figure 13). The proposed Outer Schoodic Ridge coral closure overlapped with a relatively high co-occurrence score (100-1,000), whereas the other proposed area near Mount Desert Rock did not directly coincide with but is located adjacent to areas of high co-occurrence.

Spatial closures in Maine have been avoided in the Atlantic Large Whale Take Reduction Plan, due in part to concerns about the displacement of effort and the potential to increase the density of vertical lines along the edges of a closure. A similar scenario exists here relative to the proposed coral closures, with displacement of gear creating a higher risk of entanglement in the areas surrounding the closure. For this reason, there is greater concern regarding

[3] Personal communication. M. Bachman, NEFMC 1/24/2017

[4] Final Environmental Impact Statement for Amending the Atlantic Large Whale Take Reduction Plan: Vertical Line Rule. May 2014.

unintended impacts to whales in the Outer Schoodic Ridge area where whales are known to frequent, while the impact near Mount Desert Rock is less certain.

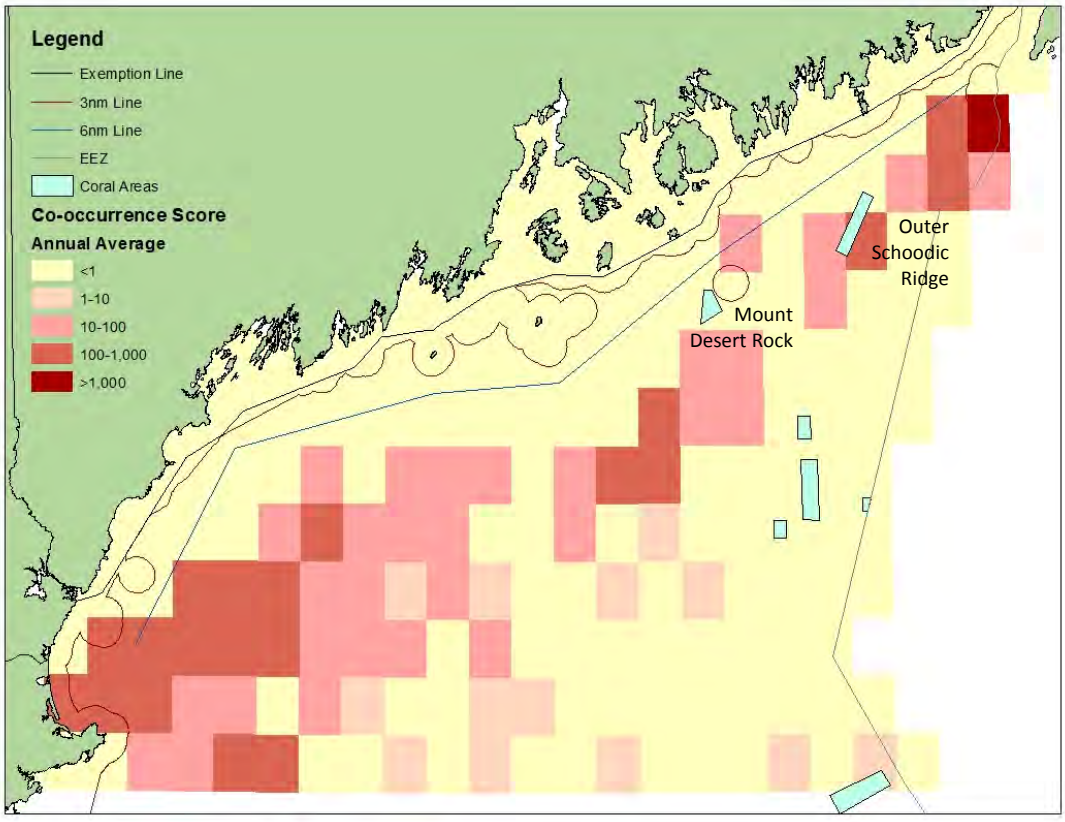

Figure 13. The annual average co-occurrence score in ten minute grid cells shown with proposed coral closure areas. Right whale sightings used to calculate the co-occurrence score include aerial and shipboard standardized surveys from 1978-2011 summarized in the North Atlantic Right Whale Consortium Database and the Navy Marine Resource Assessment Database. Vertical line densities used to calculate the co-occurrence scores include VTR, State of Maine dealer and harvester data, and voluntary gear configuration surveys done by DMR in 2010.

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Whitmore, K., Morrissey, E., Ware, M., and Glenn, R. 2016. Characterization of the offshore American lobster and Jonah crap trap fishery in Lobster Conservation Management Area 3 in and around the Southern New England and Georges Bank canyons. Prepared for the Atlantic States Marine Fisheries Commission. Updated July 5, 2016; 17pp

Atlantic States Marine Fisheries Commission

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MEMORANDUM

TO: American Lobster Management Board

FROM: American Lobster Advisory Panel

DATE: March 17, 2017

SUBJECT: Review of TC's Analysis on Proposed Coral Closures

The American Lobster Advisory Panel (AP) met via conference call on February 27, 2017 to discuss impacts of proposed coral closures on the lobster and Jonah crab fisheries. Currently, the New England Fishery Management Council is drafting an Omnibus Deep-Sea Coral Amendment which could implement area closures in Georges Bank and the Gulf of Maine. The intent of the conference call was to provide an opportunity for the AP to review and comment on the Technical Committee's (TC) analysis regarding potential fishery impacts as a result of the proposed coral closures. The AP also discussed recommendations concerning the Omnibus Deep-Sea Coral Amendment. The following is a summary of the conference call.

AP Members in Attendance:
David Cousens (Maine)
Bob Baines (Maine)
Grant Moore (Massachusetts, Chair)
Arthur Sawyer (Massachusetts)
Jack Fullmer (New Jersey)
*John Whittaker (Connecticut) provided comments to ASMFC staff via phone prior to the AP call

Other Attendees:
Burton Shank (Lobster TC)
Kathleen Reardon (Lobster TC)
David Borden (Board Chair)

AP Comments on the TC's Coral Analysis

<u>Georges Bank Canyons</u>

- While results of ASMFC's lobster industry survey indicate that 4%-6% of lobster effort is found at depths greater than 400m, several AP members commented that this percentage seems low. They noted that the amount of gear at depths greater than 400m is not uniform across the canyons and some canyons may have a greater concentration of gear in deeper waters. Some AP members questioned if the survey results are representative of the entire fleet given roughly one-third of LCMA 3 permit holders responded.
- The AP highlighted that not all habitat at a given depth is equally valuable to the lobster fishery. While the tenuous nature of this assumption is discussed in the TC's report, members of the AP stated that bottom type, slope, and depth can all be important factors in determining lobster productivity.

- The AP noted that the estimate of total revenue from the offshore canyons is not adjusted to account for vessels which do not report with VTRs. Approximately 85% of lobster vessels in the offshore areas report with VTRs so the total revenue for the offshore fleet needs to be scaled up by 15%. This could impact the results of the TC's analysis as the estimate of total revenue from the offshore canyons is used to scale the results of the ASMFC industry survey to the entire fleet.

Mount Desert Rock and Outer Schoodic Ridge

- Several AP members commented that there has been a noticeable increase in lobster effort over the last 5 years in the Gulf of Maine. As a result, impacts to the Gulf of Maine fishery may be higher than what is estimated by the TC as the analysis uses harvester data from 2011-2014. Moreover, the TC's preferred estimate of $4.2 million in impacts to the Gulf of Maine lobster fishery is likely a conservative estimate.
- The AP expressed concern regarding unintended consequences of the Gulf of Maine area closures to the right whale population. The AP commented that if an area closure is implemented, the density of traps along the border of the closure will increase, resulting in a higher probability of gear interactions with right whales. This will have negative consequences for the right whale population, which is one of the most endangered whale species in the Atlantic Ocean.
- AP members highlighted that, contrary to the assumption made in the TC's analysis, all habitat at a given depth is not equally valuable to the fishery. This means that closures to highly productive areas could have greater impacts to the lobster fishery.
- One AP member agreed with the estimate that there are approximately 50 boats fishing in the proposed Mount Desert Rock coral closure and another 50 boats fishing in the proposed Outer Schoodic Ridge coral closure. While roughly 15% of vessels fish year round in these areas, the majority fish in the proposed closures between 8 and 10 months out of the year. Roughly 25% of these vessels fish in the proposed closures 2 to 3 months of the year.

AP Comments on the Omnibus Deep Sea Coral Amendment

- The AP noted that there is limited knowledge regarding the location of deep-sea corals in New England. While the Council has used information on bathymetry and slope to predict deep-sea coral habitat, not all sites have been confirmed. Furthermore, not all areas have adequate bathymetry data which could lead to inaccurate predictions on the location and geographic extent of deep-sea coral habitat.
- Studies investigating the impact of fishing gear on deep-sea corals have found that passive gears, such as traps, have a much lower impact on coral populations as opposed to bottom trawls and dredges.[1] Moreover, trap gear has a smaller footprint compared to other gears. This information highlights why the trap fisheries should be exempt from any restrictions in the Coral Amendment.

[1] Heifetz, J., R. P. Stone, et al. (2009). Damage and disturbance to coral and sponge habitat of the Aleutian Archipelago. Marine Ecology Progress Series 397: 295-303; Fosså, J. H., P. B. Mortensen, et al. (2002). The deep-water coral Lophelia pertusa in Norwegian waters: distribution and fishery impacts. Hydrobiologia 471: 1-12.

- The AP highlighted that area closures have far reaching impacts beyond the direct effects to those vessels which fish in the proposed closure. When fishermen are prohibited from setting traps on their historic fishing grounds, they move gear into adjacent regions. This results in cascading effects to lobstermen who have historically fished in areas adjacent to the closure as there is now a higher density of traps in the neighboring region. The displacement of gear to nearby regions can cause increased gear conflicts and reduced revenue for fishermen who historically fished in and around the closure. In the lobster fishery, these negative effects are intensified due to the territorial nature of the fishery. In fact, several AP members commented that the redistribution of effort in the lobster fishery is unrealistic given the territorial nature of the fishery. These cascading economic impacts needs to be considered in the Coral Amendment.
- The AP noted that the lobster fishery is currently the most valuable wild-caught fishery in the United States. As a result, great consideration and caution needs to be taken when considering regulations which may impact the fishery. The AP urges that more surveys be conducted to further investigate the interactions between trap gear and deep-sea corals before any decision is made by the Council.
- Several AP members expressed concern that the New England Fishery Management Council is making regulatory decisions which impact the lobster fishery. They noted that this is particularly troubling given there is limited representation from the lobster fishery on the Council.
- John Whittaker, over the phone, noted that even though some New England states do not have registered boats which are fishing in the offshore canyons, many New England states are home to crew members who are employed on these boats. As a result, closure of the offshore canyons would not only affect the coastal economy of states with large offshore fleets but also the local economy of states where crew members reside.

AP Recommendations on Omnibus Deep Sea Coral Amendment

- The AP proposed a 550m broad zone be added to the Coral Amendment and that all discrete coral closures be removed from consideration. With this option, they recommended an exemption for the red crab fishery.
- For other options, the AP recommended that an exemption in the Coral Amendment be given to all pot fisheries, including the lobster, Jonah crab, and red crab fisheries. Several members noted that a similar exemption was given in the Mid-Atlantic and it is troubling that an exemption has not been granted in New England[2].

[2]Lobster was not considered by the MAFMC in their coral amendment because they did not have clear guidance on whether they could regulate lobster gear. In 2012, NMFS advised the Councils that they could not regulate lobster gear independent of ASMFC in deep-sea coral management action. In 2014, new guidance indicated regulations on the lobster fishery could be proposed by the Councils under certain circumstances. Given much of the work on the MAFMC Coral Amendment had already been completed by 2014, the amendment was not applied to lobster gear.

Atlantic States Marine Fisheries Commission

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MEMORANDUM

TO: American Lobster Management Board

FROM: GOM/GBK Lobster Subcommittee

DATE: April 20, 2017

SUBJECT: Report on Future Management of GOM/GBK Stock

The American Lobster Gulf of Maine/Georges Bank (GOM/GBK) Subcommittee met on April 13, 2017 in Durham, New Hampshire to discuss future management of the stock given changing environmental conditions. The discussion focused on outcomes of the Technical Committee's GOM/GBK Report, lessons learned from management in Southern New England (SNE), and potential recommendations regarding management of the stock. Overall, the Subcommittee concluded that there are deficiencies in the current management plan. Preliminary recommendations are provided to the Board; however, the Subcommittee does request another meeting to further develop these recommendations.

Participants at the GOM/GBK Subcommittee Meeting:

Pat Keliher (ME)	Josh Carloni (NH)	Beth Casoni (MA)
Carl Wilson (ME)	Peter Begley (NH)	David Borden (RI)
Patrice McCarron (ME)	Damon Frampton (NH)	Mark Gibson (RI)
Kathleen Reardon (ME)	Dan McKiernan (MA)	Peter Burns (NOAA)
Doug Grout (NH)	Bob Glenn (MA)	Burton Shank (NEFSC)
	Grant Moore (MA)	Megan Ware (ASMFC)

Primary Discussion Questions

Discussion by the Subcommittee began with four primary questions.

- **How is the Board currently protecting SSB?** Presently, a portion of SSB is protected through the v-notch program, the minimum gauge size, and the maximum gauge size. With warming waters and an earlier size at maturity, the minimum gauge size may be protecting an increasing portion of the mature population.
- **What does the GOM lobster fishery look like with less catch?** The Subcommittee noted that if catch were to decrease in GOM/GBK, the price of lobster may increase; however, there is likely a ceiling on the price of lobster. Given that many lobstermen are not diversified in their catch, a decrease in lobster landings is expected to have rippling economic effects throughout fishing communities.
- **What role does the environment play in recent stock changes and does this limit the ability of the Board to prevent stock declines?** The Subcommittee reviewed the GOM/GBK stock-recruit relationship, which shows that in recent years, recruitment has increased while spawning stock biomass (SSB) has remained fairly stable. This suggests

that environmental changes are contributing to the increase in recruitment. While some Subcommittee members questioned the ability to maintain the GOM/GBK stock at its current level of abundance, others commented that proactive management action could promote continued high biomass.

- **Are there any deficiencies in the current management plan?** The current reference points for GOM/GBK trigger management when stock abundance falls to the 25th percentile. While this may be an appropriate threshold to maintain the population at levels seen during the reference time period (1982-2003), the Subcommittee agreed that waiting until this point to initiate management action would be economically devastating given abundance levels have continued to increase since that time period.

Lessons Learned from SNE

Next, the Subcommittee discussed lessons learned from the SNE stock. Subcommittee members from the SNE states provided the following recommendations.

- **Be proactive**. Given the rapid decline in the SNE stock as well as the time needed to develop, comment on, and implement regulatory changes, initiating action after landings have started to decline will be too late.
- **Address excess in the system.** This could include latent effort (i.e. unused traps or inactive permits) or the continued purchase of faster and larger boats.
- **Standardized management measures.** While several SNE addenda allow LCMAs to create their own proposals to achieve a target specified by the Board, the lack of standardization can create enforcement challenges and can lessen the expected biological benefits of the management tools.
- **Implement 100% harvester reporting**. If management measures are ever considered which require information on historic participation in the fishery, harvester data from all fishermen will be necessary.

Preliminary Recommendations Moving Forward

At the end of the meeting, the Subcommittee put together a list of preliminary recommendations for the GOM/GBK stock. Subcommittee members did request another meeting to further develop these recommendations.

- **Conduct additional research**. In particular, a coastwide study is needed to evaluate changes in size-at-maturity and growth given much of the data currently used in the stock assessment may be out of date. In addition, specific larval surveys are needed to understand changing dynamics between Stage I and Stage IV lobsters as well as their relationship to environmental factors such as predation, zooplankton availability, and wind drift. Socio-economic studies are also needed to understand changing input costs (such as the cost of bait) and the dispersion of revenue between small, medium, and large lobster vessels. This will help forecast expected economic consequences of potential reductions in lobster landings.

- **Continue to monitor VTS and trawl surveys.** The Subcommittee concurred with the TC that if settlement has truly declined, this change will next be reflected in the ventless trap surveys and trawl surveys. As a result, the Board should closely monitor these surveys.
- **Improve enforcement offshore.** An increase in the value of the fishery has corresponded with an expansion of effort offshore and an increase in the number of violations, including excess traps, sunken trawls, and misuse of latent tags. Electronic beacons or trackers on federal vessels, at a minimum, would help address enforcement challenges.
- **Develop an environmental indicator.** Per the TC's recommendation, the Subcommittee supports the development of an environmental indicator to investigate trends and anomalies in water temperature. A dataset with an appropriate time series will need to be identified.
- **Develop an economic indicator and trigger.** Given the primary concern is the potential economic impacts of a stock decline, economic indicators and triggers should be assessed and developed to determine when Board action is necessary. A trigger could prompt management action if landings or other defined economic indicators decline by a certain percentage over a specified time period. An economic trigger will also set clear expectations for industry of what will happen under various scenarios.
- **Modify current reference points**. Under the current reference points, action is not triggered until abundance falls to the 25th percentile. The Subcommittee supports the TC's recommendation that management action be triggered at the 50th percentile.

Atlantic States Marine Fisheries Commission

DRAFT ADDENDUM XXV TO AMENDMENT 3 TO THE AMERICAN LOBSTER FISHERY MANAGEMENT PLAN

RESPONSE TO SOUTHERN NEW ENGLAND STOCK DECLINE

January 2017

This draft document was approved by the American Lobster Management Board to solicit public comment on the issues contained in the document.

Vision: Sustainably Managing Atlantic Coastal Fisheries

Public Comment Process and Proposed Timeline

In May 2016, the American Lobster Management Board (Board) initiated Draft Addendum XXV to address continued stock declines in Southern New England. In August 2016, the Board identified a management goal for the Southern New England stock as well as management targets for development in this addendum. This Draft Addendum presents background on the Atlantic States Marine Fisheries Commission's management of lobster, the addendum process, a statement of the problem, and management measures for public consideration and comment.

The public is encouraged to submit comments regarding the proposed management options in this document at any time during the addendum process. The final date comments will be accepted is **April 7, 2017 at 5:00 p.m**. **EST.** Comments may be submitted by mail, email, or fax. If you have any questions or would like to submit comments, please use the contact information below.

Mail: Megan Ware
Atlantic States Marine Fisheries Commission
1050 N. Highland St. Suite 200A-N
Arlington, VA 22201
Fax: (703) 842-0741

Email: mware@asmfc.org
(Subject line: Lobster Draft Addendum XXV)

August– October 2016	Draft Addendum for Public Comment Developed
October 2016 – February 2017	Preliminary Industry Comment and Subcommittee Review
February 2017	Board Reviews Draft and Makes Any Necessary Changes
February – April 7, 2017	Public Comment Period, LCMTs prepare preliminary proposals
May 2017	Board Review, Selection of Management Measures
Late May/Early June 2017	LCMTs Submit Proposals to Meet Target Increase in Egg Production
August 2017	Board Reviews and Approves LCMT Proposals, Final Approval of Addendum XXV
2018	Implementation of Addendum XXV

Executive Summary

The Southern New England (SNE) lobster stock is at record low abundance and is experiencing recruitment failure. This poor stock condition is the result of environmental factors, such as warming waters, and continued fishing mortality. As an initial management response, the American Lobster Management Board initiated this Draft Addendum to consider increasing egg production in SNE by 20% to 60%. This addendum focuses on increases in egg production so that, if environmental conditions become favorable, the SNE stock can benefit from a strong recruitment year.

To respond to the Board's objective to increase egg production, the Plan Development Team (PDT) evaluated multiple management tools, including: gauge size changes, trap reductions, season closures, trip limits, v-notching, and culls. In their evaluation of these various management tools, the PDT analyzed not only the ability to achieve the specified management targets but also the ability to effectively monitor, administer, and enforce selected management tools. These management tools, if implemented, may have negative economic consequences on the SNE lobster industry.

This Draft Addendum includes seven issues. The first proposes five targets by which to increase egg production, ranging from 0% to 60%. The second issue asks whether the management tools considered for use in the document can be used independently or in conjunction with one another. The third issue addresses the effects of this addendum on the recreational fishery. The fourth issue explores the implementation of season closures and potential impacts to the Jonah crab fishery. The fifth issue examines whether management measures in SNE should be uniform across LCMAs. The sixth issue asks where in LCMA 3 the management measures in this document should apply. The seventh issue asks whether *de minimis* states should be exempt from management action taken as a result of this Draft Addendum.

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1.0 Introduction

The Atlantic States Marine Fisheries Commission (ASMFC) has coordinated the interstate management of American lobster (*Homarus americanus)* from 0-3 miles offshore since 1996. American lobster is currently managed under Amendment 3 and Addenda I-XXIV to the Fishery Management Plan (FMP). Management authority in the Exclusive Economic Zone (EEZ) from 3-200 miles from shore lies with NOAA Fisheries. The management unit includes all coastal migratory stocks between Maine and Virginia. Within the management unit there are two lobster stocks and seven management areas. The SNE stock (subject of this Draft Addendum) includes all, or part of, five of the seven Lobster Conservation Management Areas (LCMAs) (Appendix 1). There are eight states (Massachusetts to Virginia) which regulate American lobster in state waters of the SNE stock, as well as regulate the landings of lobster in state ports.

The Board initiated Draft Addendum XXV to respond to continued stock declines in SNE. The 2015 Benchmark Stock Assessment found abundance, spawning stock biomass (SSB), and recruitment are all at historic low levels in SNE. The stock was deemed depleted as the current reference abundance of 10 million lobsters is well below the management threshold of 24 million lobsters. As a result, the Board directed the PDT to draft an addendum to address the poor condition of the SNE stock by increasing egg production and decreasing fishing mortality.

The principal challenge facing the SNE stock is the increase in natural mortality, primarily due to climate change and predation. Specifically, the 2015 Stock Assessment showed a pronounced warming trend in coastal waters, particularly in New England and Long Island Sound. These warming waters have negatively impacted the stock as they have resulted in reduced spawning and recruitment. Predation from species such as black sea bass has further depleted the stock. Together, these challenges highlight the vital role the environment plays in the health of the American lobster population. Importantly, fishing pressure, while at an all-time low level, continues to be a significant source of mortality and a measurable factor contributing to the overall decline of the SNE stock.

Given these challenges, the Board identified the following goal for this Draft Addendum.

> "*Recognizing the impact of climate change on the stock, the goal of Addendum XXV is to respond to the decline of the SNE stock and its decline in recruitment while preserving a functional portion of the lobster fishery in this area."*

To achieve this goal, the Board tasked the Technical Committee (TC) and the PDT to analyze management tools that would result in increased egg production in the SNE stock. The Board identified four alternative egg production targets for analysis: increasing egg production by 20%; 30%; 40%; and 60%. A 0% increase was also analyzed to provide a baseline, no-action context to assist in decision-making. The Board is pursuing increases in egg production so that, if environmental conditions become favorable in SNE, there will be enough eggs in the water to produce a successful and impactful recruitment event. Given uncertainties surrounding future climate conditions and their impact on the stock, most notably on recruitment, it is unclear whether the SNE stock can be rebuilt to the current reference levels if unfavorable environmental conditions continue.

This Draft Addendum is intended to be an initial response to the most recent stock assessment. The 2015 Stock Assessment clearly stated climate change is impacting the SNE fishery in a profoundly negative way. While the Board recognizes serious and impactful management actions are needed to preserve the SNE stock, it also recognizes questions surrounding the full impacts of climate change still remain. As a result, the Board agreed to take quick and decisive action while preserving a functional portion of the fishery. It is important to note that a functional fishery may not mean the continuation of its current state and size. The Board will continue to monitor the stock and fishery in order to determine the next appropriate course of action. All management tools remain available for future consideration.

2.0. Overview

2.1 Statement of the Problem

The 2015 Benchmark Stock Assessment found the SNE stock to be depleted, with record low abundance and recruitment failure. This poor stock condition can be attributed to many factors including changing environmental conditions and continued fishing mortality. In response, the Board initiated Draft Addendum XXV with the goal of preserving a functional portion of the SNE lobster fishery while addressing the poor stock condition. The measures in this addendum are intended to increase egg production so that, if environmental factors improve, the stock can benefit from a successful recruitment event. This addendum is an initial response to the most recent stock assessment and may be followed by other management measures.

2.2 Resource Issues

Results of the 2015 Benchmark Stock Assessment concluded the SNE stock is depleted and experiencing continued declines (Table 1). The assessment highlighted that abundance, SSB, and recruitment are all at historic low levels for the model time-series (1982-2013). Stock indicators independent of the assessment model corroborate these findings as spawning stock abundance, a measure of the reproductively mature portion of the population, is below the 25th percentile in six of the eight surveys from 2008-2013 (Appendix 2). Furthermore, the distribution of lobsters inshore has contracted as the survey encounter rate is negative in all six inshore indices over the 2008-2013 time period. In contrast to the poor condition of the SNE stock, the assessment concluded that the Gulf of Maine/Georges Bank (GOM/GBK) stock is at record high abundance, with a dramatic increase in abundance since the late 1980's. This dichotomy suggests environmental conditions are changing along the coast and these changes are impacting the condition of the stock.

Table 1. Current (2011-2013) reference estimates for each stock as well as the target and threshold levels for abundance and effective exploitation. The reference abundance is used to determine a depleted status while effective exploitation is used to determine an overfishing status.

		GOM/GBK	SNE
Abundance (millions)	**2011-2013 Reference**	**248**	**10**
	Threshold	**66**	**24**
	Target	**107**	**32**
Effective Exploitation	**2011-2013 Reference**	**0.48**	**0.27**
	Threshold	**0.50**	**0.41**
	Target	**0.46**	**0.37**

One of the largest indicators of poor stock condition in SNE has been the marked decline in recruitment, or the number of lobsters surviving to enter the fishery. Indices suggest the stock is in recruitment failure as, since 2011, all larval indices have been below the 25th percentile. Figure 1 depicts larval indices from Long Island Sound from 1983 to 2015, which show a significant decline in the density of larvae since the 1990s. Model-free indicators show similar trends as all four young-of-year indices, which measure the abundance of age 0 lobsters, are below the median (Appendix 2). In 2015, the SNE young-of-year index in Massachusetts was zero (Appendix 2). This is concerning as it means the number of young lobsters which have yet to recruit into the fishery is low and the stock may experience further declines.

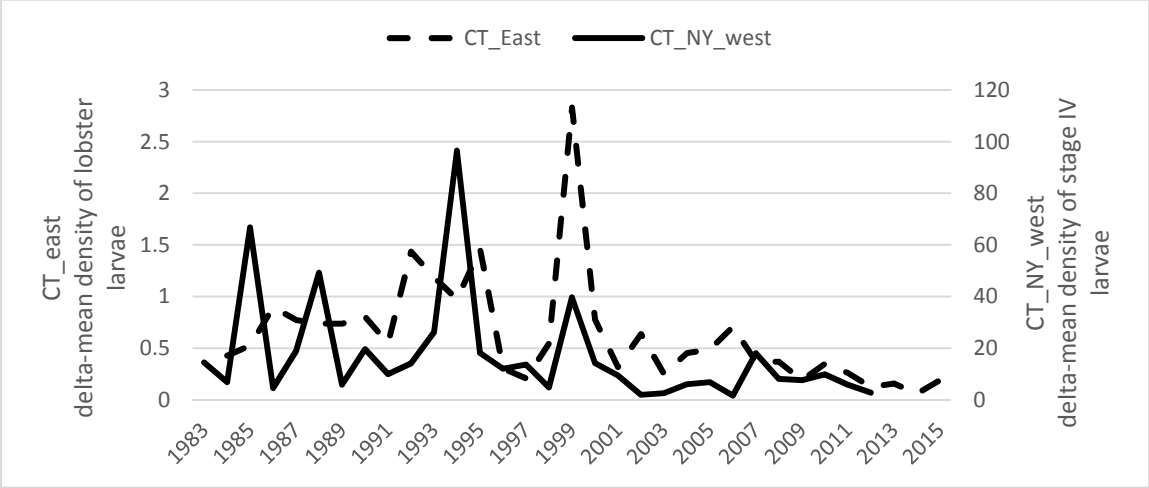

Figure 1: Annual density (delta mean per 1000 m^3) of lobster larvae (all stages) in MPS entrainment samples during their season of occurrence (CT-East) and stage IV larvae captured in surface plankton nets at 8 stations in western Long Island Sound. Source: CT DEEP and Dominion Nuclear Power Station.

Furthermore, analysis by the TC shows SSB and recruitment may be decoupled, meaning there seems to be a lack of cause-effect relationship between SSB and recruitment. Figure 2 shows the relationship between SSB and recruitment from 1979 to 2011. Overall, the plot indicates a positive relationship such that there are more lobsters entering the fishery when the reproductive portion of the population is larger; however, over the last decade, this relationship has decoupled, with recruitment declining and SSB remaining steady. This suggests that recruitment may drop to very low levels well before SSB reaches zero. Low recruitment levels may be the result of reduced mating success, environmentally-mediated changes in survivorship, and/or increased predation. Figure 2 also shows the wide range of recruitment which can be produced from a single level of SSB, even when stock abundance was high in the early 1990s. This is important to note as management action seeking to increase SSB and egg production can result in a wide range of recruitment levels.

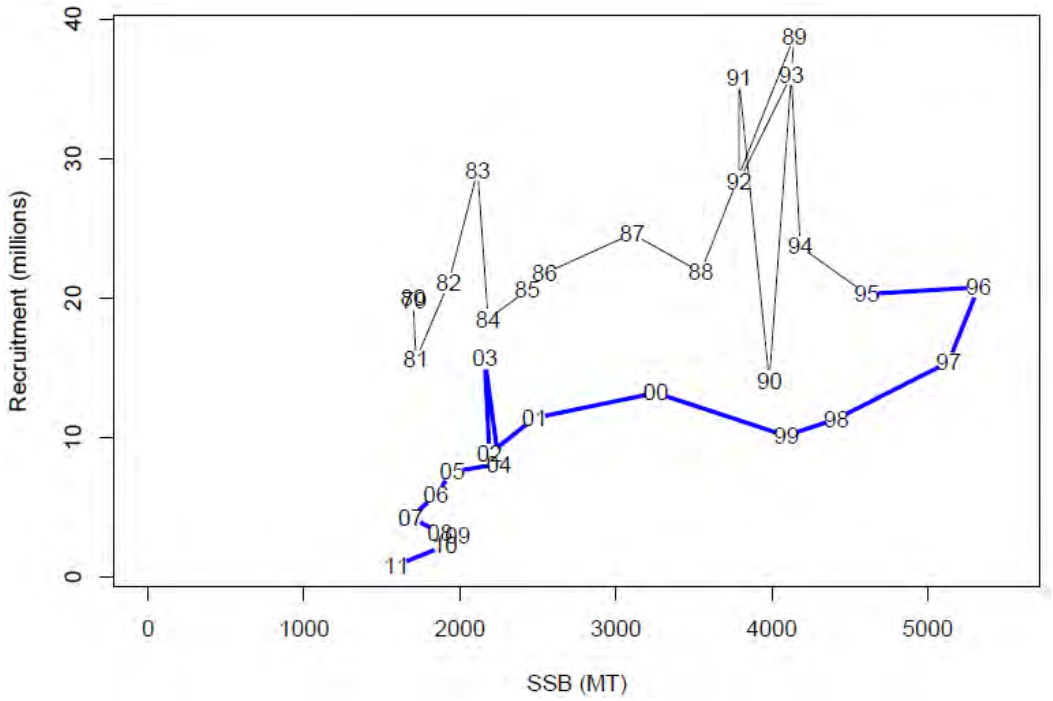

Figure 2: The relationship between model-based spawning stock biomass and recruits from 1979 to 2011. The blue line denotes the trajectory from 1995 – 2011 (recruiting to the model from 1998 to 2014).

There are several contributors to the poor stock condition in SNE, including an increase in natural mortality, primarily as the result of climate change, and continued fishing pressure. Climate change has had a significant impact on the stock as lobster physiology is intricately tied to water temperatures. Not only does water temperature impact when lobster eggs hatch but it also has a direct effect on larval survivorship as waters which are too cold (<10°C) or too warm (>22°C) increase mortality.[1] Adult lobsters also are impacted by warming waters as recent laboratory studies suggest lobsters have a threshold of ~20.5°C, above which lobsters experience significant stress.[2] Ocean temperatures, particularly inshore, have been rising in the past two decades. Data from Buzzards Bay, MA and Long Island Sound show the number of days above 20°C has markedly increased since 1997 (Appendix 3). These warming waters have increased the natural mortality of the stock. Predation also has a significant impact on the species. Lobsters, especially juveniles, are an important source of food for many finfish species including Atlantic cod, spiny dogfish, black sea bass and skate. When populations of these species increase, pressure on the lobster stock increases.

In conjunction with the increase in natural mortality, continued fishing pressure has furthered the decline of the SNE stock. As the stock has decreased to record low abundance, effort and landings in the SNE fishery have likewise declined. This is in response to not only the low abundance but also recently implemented regulations and the higher costs of fuel and bait. Importantly, while the 2015 Stock Assessment did not conclude overfishing is occurring, fishing mortality is still the primary contributor to the stock's mortality. Work by the TC shows that, even when accounting for the recent increases in natural mortality, fishing mortality is removing roughly twice as much SSB from the

[1] MacKenzie, 1988.
[2] Powers et al., 2004.

population than natural mortality annually (Figure 3). This suggests that, in the face of climate change and increases in predation, management action can still have real effects on spawning stock abundance and egg production. Favorable environmental conditions will be needed to translate this increase in egg production into a successful recruitment event. This is highlighted in Figures 2 and 3 as, while the proportion of SSB surviving in SNE has generally increased since 2000, recruitment has significantly declined.

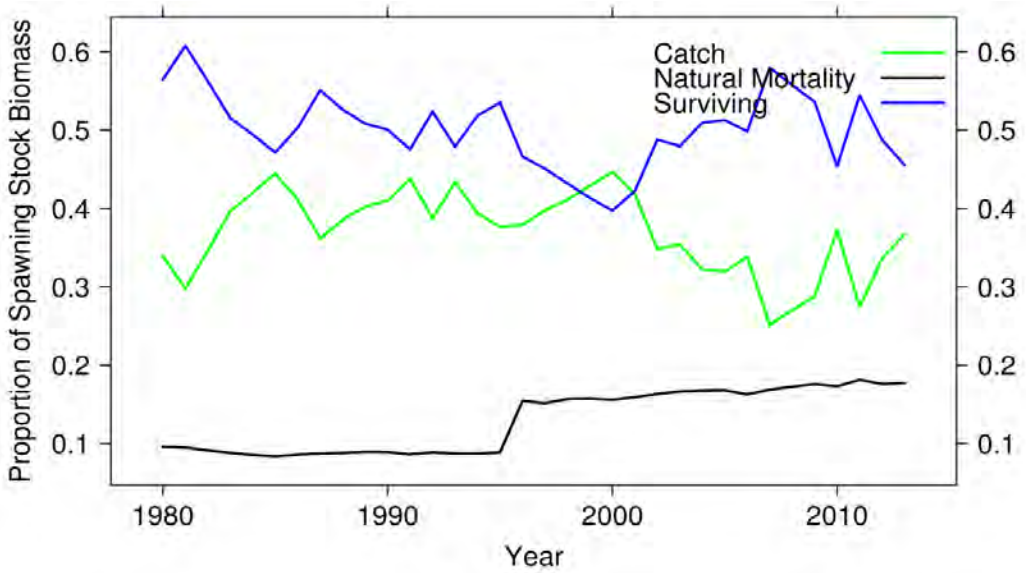

Figure 3: Proportion of SSB surviving or removed by fishing and natural mortality annually (1980-2013).

In an attempt to understand the extent of management action needed to improve stock conditions, the Board directed the TC to model future lobster abundance under various levels of fishing mortality and natural mortality. Results of these stock projections concluded a 75% to 90% reduction in fishing mortality would be needed to stabilize the stock under current natural mortality conditions (Appendix 4); should natural mortality increase, greater reductions in fishing mortality would be needed. The projections also showed that without management action, stock conditions would be expected to deteriorate and reference abundance could decline by 50%. These results highlight the poor condition of the stock and the need for impactful management action.

2.3 Fishery Status

2.3.1 Commercial Fishery

The SNE fishery is carried out by fishermen from Massachusetts, Rhode Island, Connecticut, New York and New Jersey, with smaller contributions from Delaware, Maryland, and Virginia. This fleet is comprised of small vessels (22' to 42'), which make day trips in nearshore waters (less than 12 miles), and larger boats (55' to 75'), which make multi-day trips to the canyons along the continental shelf. The SNE fishery is executed in LCMAs 2, 4, 5, and 6 as well as the western portion of LCMA 3 (Appendix 1).

The SNE fishery has experienced a noticeable contraction in effort and landings over the last decade (Table 2). Landings in the 1980s steadily rose from 4.06 million pounds in 1981 to almost 13 million pounds in 1989. Landings continued to rise in the 1990s, peaking at 21.9 million pounds in 1997. At this

time, 41% of landings were from New York, followed by Rhode Island (28%), Connecticut (16%), and Massachusetts (12%). Starting in the early 2000s, landings began to precipitously decline. In 2004, landings (5.28 million pounds) were less than half of what they were four years earlier in 2000 (13.18 million pounds). This trajectory continued such that landings in 2015 were roughly 3.5 million pounds. In 2015, Rhode Island was the largest contributor of landings (55%) followed by Massachusetts (22%). This large decline in harvest is likely the result of a declining stock size, attrition in the fishery, regulatory changes, and substantial increases in the operating costs of the fishery, such as fuel and bait. Interestingly, despite the decrease in overall fishing effort, those who remain in the fishery have experienced increasing catch rates. The TC discussed this trend in their February 2016 presentation to the Board and highlighted that this is due to high attrition in the lobster fleet which has resulted in fewer fishermen concentrating their effort on the remaining aggregations of lobster in SNE.

In conjunction with the decrease in landings, the number of active permit holders has also decreased (Table 3). In 1990, there were 202 active lobster permits in Massachusetts. Only 24 years later, this number decreased by roughly 50% in Massachusetts. Similar trends can be seen in the other states as, from 2007-2014, the number of active permits decreased by 50% in Rhode Island and by 60% in Connecticut.

Data on the number of traps fished in Massachusetts, Rhode Island, Connecticut, and New York also matches the trends seen in landings (Table 4). In 1990, the number of active traps fished in Massachusetts, Connecticut and New York was 291,632 and this quickly rose to 443,833 by 1995. The number of traps fished peaked in 1998, just one year after landings peaked, at 588,422 traps. At this time, 59% of traps were from New York. Since then, the number of active traps has dramatically declined. In 2013, only 151,970 traps were fished in SNE, with New York seeing the largest decline and comprising only 14% of active traps fished. Rhode Island fishermen contributed the largest number of traps fished in 2013 at 42%.

Table 5 shows 2016 trap allocations in LCMAs 2, 3, 4, 5, and 6. The greatest number of traps are allocated in LCMAs 2, 3 and 6; however; a large portion of traps in LCMA 6 are not actively fished. This is corroborated by data showing the harvest of lobster from LCMA 6 has the second lowest landings in the SNE fishery (Table 6). Roughly two-thirds of landings in 2012 came from LCMA 3, followed by LCMA 4 and LCMA 2. The lowest landings are from LCMA 5, which also has the fewest traps allocated to its waters.

Table 2. SNE landings, in pounds, by state from 1981 to 2015.

Year	MA	RI	CT	NY	NJ	DE & South	Total
1981	952,397	750,484	806,892	834,818	593,700	121,100	4,059,391
1982	1,161,836	1,738,274	879,644	1,119,143	846,300	160,200	5,905,398
1983	1,340,411	3,142,252	1,653,467	1,207,442	769,900	143,800	8,257,272
1984	1,494,734	3,416,509	1,796,767	1,308,023	927,700	220,100	9,163,834
1985	1,276,476	3,448,905	1,380,094	1,240,928	1,079,600	201,900	8,627,903
1986	1,300,727	4,155,706	1,254,430	1,416,779	1,123,000	167,700	9,418,343
1987	1,274,272	4,141,975	1,571,896	1,146,613	1,397,100	135,000	9,666,856
1988	1,384,503	3,897,431	1,922,431	1,571,308	1,557,300	89,500	10,422,473
1989	1,485,916	4,927,960	2,076,755	2,344,832	2,059,600	94,000	12,989,062
1990	2,004,577	6,382,563	2,645,547	3,414,911	2,198,867	68,300	16,714,765
1991	2,059,067	5,997,763	2,674,207	3,128,246	1,673,031	54,700	15,587,014
1992	1,792,128	5,502,213	2,533,111	2,651,067	1,213,255	21,000	13,712,774
1993	1,913,042	5,511,204	2,175,963	2,667,107	906,498	24,000	13,197,814
1994	2,227,096	6,080,776	2,147,302	3,954,634	581,396	8,400	14,999,604
1995	2,180,263	5,627,777	2,541,930	6,653,780	606,011	3,355	17,613,116
1996	2,107,994	5,558,208	2,888,056	9,408,519	640,198	29,978	20,632,953
1997	2,554,513	6,085,849	3,467,871	8,878,395	858,426	37,096	21,882,150
1998	2,411,025	5,896,240	3,712,584	7,896,803	721,811	1,306	20,639,769
1999	2,234,115	7,656,157	2,594,841	6,452,472	931,064	6,916	19,875,565
2000	1,536,981	6,484,219	1,386,708	2,883,468	891,183	311	13,182,870
2001	1,501,483	4,179,518	1,322,774	2,052,741	579,753	19	9,636,288
2002	1,541,572	3,600,040	1,062,628	1,440,165	264,425	551	7,909,381
2003	887,888	2,677,133	668,001	945,895	209,956	25,609	5,414,482
2004	819,288	2,254,205	639,341	1,171,210	370,112	30,116	5,284,272
2005	877,397	3,069,430	712,093	1,225,428	369,264	66,164	6,319,776
2006	987,793	2,767,163	789,255	1,301,440	470,877	57,824	6,374,352
2007	867,586	2,323,678	544,542	896,852	680,392	38,811	5,351,861
2008	834,555	2,707,408	416,674	706,843	632,545	55,014	5,353,038
2009	1,040,368	2,335,117	410,060	730,539	179,740	58,527	4,754,351
2010	760,463	2,230,392	432,106	811,809	641,556	50,924	4,927,250
2011	513,222	1,605,269	188,932	343,072	627,077	61,923	3,339,495
2012	665,328	1,845,056	235,386	275,086	919,260	89,507	4,029,624
2013	698,237	1,620,251	132,908	246,754	660,367	96,127	3,454,644
2014	735,400	1,807,430	141,986	222,524	526,367	93,198	3,526,905
2015	769,305	1,966,218	156,708	146,249	445,195	60,790	3,544,464

Table 3. The number of active permits in the SNE stock. An active permit means any commercial vessel that reported landings. MA data includes both active trap and non-trap lobster permits.

	MA	RI	CT	NY	NJ	DE	MD	Total
1990	202							202
1991	190							190
1992	184							184
1993	205							205
1994	236							236
1995	222		365					587
1996	207		322		42		12	583
1997	217		305		42		15	579
1998	225		311		40		12	588
1999	223		299		41		11	574
2000	199		245		53		10	507
2001	191		234		54		10	489
2002	196		210		46		10	462
2003	171		167		34	7	8	387
2004	152		177		35	7	9	380
2005	134		179		27	3	7	350
2006	144		220		27	5	7	403
2007	133	304	195		31	5	8	676
2008	112	288	162		30	5	7	604
2009	110	267	139		33	3	7	559
2010	121	269	129	43	30	3	7	602
2011	116	216	98	41	30	2	5	508
2012	112	195	80	36	29	1	6	459
2013	95	163	59	41	29	1	5	393
2014	96	156	57	47	29	3	6	394

Table 4. Traps fished by state in the SNE stock unit. Traps fished are those traps reported fished by industry members on their state catch reports or on VTRs. (Source: 2015 Stock Assessment)

Year	Massachusetts	Rhode Island	Connecticut	New York	Total
1981	41,395	*NA*		48,295	89,690
1982	44,123	*NA*		43,977	88,100
1983	46,303	*NA*		59,808	106,111
1984	49,072	*NA*	66,709	77,599	193,380
1985	55,954	*NA*	65,262	88,332	209,548
1986	59,156	*NA*	65,826	77,429	202,411
1987	63,518	*NA*	70,646	76,729	210,893
1988	63,610	*NA*	79,154	101,790	244,554
1989	62,700	*NA*	83,915	143,320	289,935
1990	53,768	*NA*	100,360	137,504	291,632
1991	59,922	*NA*	101,290	155,276	316,488
1992	58,406	*NA*	107,668	187,661	353,735
1993	62,615	*NA*	115,224	237,117	414,956
1994	71,472	*NA*	110,805	269,419	451,696
1995	71,269	*NA*	119,983	252,581	443,833
1996	71,830	*NA*	130,360	314,297	516,487
1997	76,717	*NA*	133,770	335,860	546,347
1998	83,166	*NA*	158,527	346,729	588,422
1999	83,394	*NA*	162,149	332,323	577,865
2000	68,162	*NA*	122,386	212,767	403,314
2001	65,225	173,133	121,501	191,853	551,712
2002	78,965	152,021	117,731	157,747	506,464
2003	63,444	133,687	85,048	101,207	383,386
2004	55,191	128,081	84,071	102,351	369,694
2005	47,779	117,610	83,946	85,817	335,152
2006	52,990	120,242	90,421	89,301	352,954
2007	49,722	130,556	81,792	92,368	354,438
2008	42,934	104,440	56,355	90,909	294,638
2009	40,237	105,414	63,824	51,173	260,648
2010	48,558	111,509	53,516	70,350	283,933
2011	58,783	78,849	39,518	49,779	226,929
2012	54,102	76,826	29,353	29,678	189,959
2013	49,319	63,089	18,435	21,127	151,970

Table 5: 2016 trap allocations by LCMA in the SNE stock. LCMA 3 includes traps fished in both the SNE stock and the Gulf of Maine/Georges Bank stock. New York has permit holders that have a trap allocation for both LCMA 4 and 6.

	LCMA 2	LCMA 3	LCMA 4	LCMA 5	LCMA 6	LCMA 4/6
MA	33,377	49,040	1,100			
RI	59,789	41,288	2,424			
CT	4,163	652	2,725		139,186	
NY	1,141	2285	10,975	600	110,208	26,840
NJ	940	12,155	6,530	3,154		
DE				4,530		
MD				4,000		
VA				1,200		
TOTAL	99,410	105,420	23,754	13,484	249,394	26,840

Table 6. Estimated SNE lobster landings (in pounds) by LCMA.

Year	LCMA 2	LCMA 3	LCMA 4	LCMA 5	LCMA 6
1982	1,656,479	2,135,954	622,674	99,093	1,359,058
1983	2,958,366	2,258,492	633,254	71,804	2,428,633
1984	2,978,985	2,765,512	795,180	135,652	2,704,070
1985	2,992,330	2,330,628	964,043	170,998	2,273,337
1986	3,081,903	3,009,509	1,084,282	125,969	2,362,128
1987	3,219,900	2,655,725	1,473,841	98,486	2,378,765
1988	3,259,336	2,269,480	1,666,439	85,142	3,195,208
1989	4,175,114	2,845,444	2,232,935	106,126	3,735,250
1990	4,374,062	5,253,653	2,431,198	237,410	4,250,654
1991	4,140,145	4,811,267	2,096,138	115,020	4,393,986
1992	3,795,367	4,023,295	1,448,866	77,854	4,362,551
1993	3,772,494	3,776,113	1,597,447	89,495	3,968,663
1994	5,602,507	3,030,046	554,367	26,013	5,738,398
1995	4,960,453	2,661,176	962,077	45,054	8,564,325
1996	4,880,328	2,610,223	978,376	52,758	11,705,439
1997	5,324,775	3,183,034	1,162,862	36,623	11,650,701
1998	5,273,463	2,724,429	1,534,067	41,963	10,575,143
1999	6,938,658	3,195,423	1,346,509	77,621	8,331,142
2000	5,651,160	2,673,111	1,123,486	53,364	3,802,880
2001	3,862,054	2,053,831	762,408	55,537	3,013,551
2002	3,445,004	1,899,923	442,425	14,838	2,230,869
2003	1,110,534	2,519,713	423,583	17,394	1,448,011
2004	1,184,942	2,014,702	480,203	93,270	1,534,130
2005	1,464,433	1,800,406	457,275	54,181	1,673,396
2006	1,853,505	1,983,721	516,130	59,928	1,840,308
2007	1,430,836	1,494,830	617,978	56,866	1,263,648
2008	1,168,921	1,918,429	440,108	322,916	920,951
2009	1,051,241	2,227,432	488,792	308,212	896,594
2010	1,022,528	2,135,008	522,037	184,409	966,505
2011	730,889	1,954,052	488,977	148,587	306,079
2012	627,051	2,003,412	782,684	154,455	286,215

*To separate landings by LCMA, NMFS statistical areas are placed into a single LCMA.

One of the largest changes over the last decade has been the transition from a primarily inshore to a primarily offshore lobster fishery. In 1982, 64% of landings in SNE were from the inshore portion of the stock. This increased to 87% in 1998 as landings quickly grew in the fishery. However, declines in the stock, particularly inshore, have led the fishery to be primarily executed offshore. Figure 4 shows the landings of lobster inshore and offshore. While the pounds of lobster landed inshore has declined since 1997, offshore landings have experienced less severe declines and have even stabilized over the last decade. In fact, 2011 was the first year in which a greater portion (55%) of lobster were landed offshore than inshore. This shift in the fishery can likely be explained by warming coastal waters which have caused declines in recruitment and prompted migrations of lobsters to cooler waters offshore.

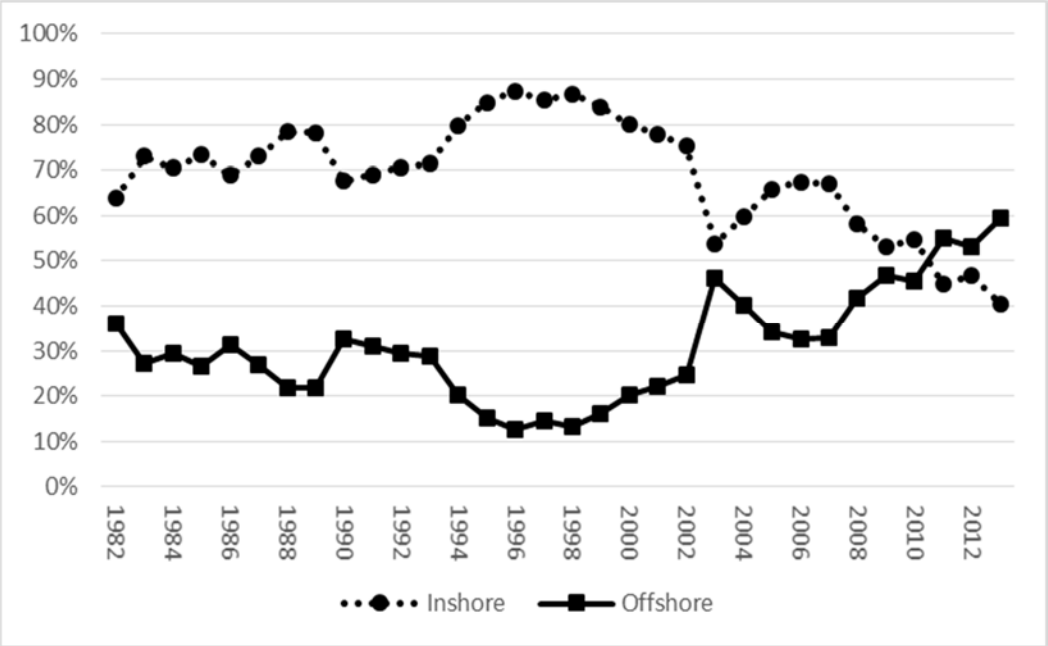

Figure 4: Percentage of landings in SNE occurring in the inshore and offshore fishery. The inshore fishery is defined as landings from statistical areas 538, 539, 611, 612, 613, 614, 621, 625, 631, and 635. The offshore fishery is defined as landings from statistical areas 533, 534, 537, 615, 616, 622, 623, 624, 626, 627, and 632.

The non-trap fishery for lobster is a relatively small percentage of overall landings in SNE. In 2015, a total of 858,736 pounds were landed with non-trap gear. This value is an overestimate as it includes non-trap landings from Massachusetts which spans both the GOM/GBK and SNE stock. 93.6% of non-trap landings come from Massachusetts, followed by Rhode Island (5.8%) and Connecticut (0.4%).

2.3.2. Recreational Fishery

While the lobster fishery is predominately commercial, there is a small recreational fishery which harvests lobsters. This recreational fishery primarily occurs in the summer months and lobster are typically harvested with traps, and in some states, by hand while diving. The states of Massachusetts, Connecticut, and New York currently collect recreational information on lobster landings. In general, recreational landings are only a small percentage of the states' total landings. In Connecticut, recreational landings have declined in conjunction with commercial landings, with the number of personal-use licenses sold in Connecticut dropping from 875 in 2009 to 163 in 2015. Over the last decade, recreational landings in Connecticut have varied between 1% and 4% of annual total harvest. In New York, 2015 recreational harvest was 2,130 pounds, or roughly 1.4% of total state harvest. Recreational harvest in Massachusetts is significantly higher, in pounds, than the other states in SNE with a five year average from 2010-2014 of 224,932 pounds; however, it is important to note that this includes landings from both the GOM/GBK and SNE stocks. Similar to New York, Massachusetts' recreational fishery represents roughly 1% of total state landings.

2.4 Status of Management

Lobster are currently managed under Amendment 3, and its twenty-four addenda. One of the hallmarks of Amendment 3 was the creation of seven LCMAs along the coast. These areas are intended

to reflect the regional differences in the fishery and, as a result, are permitted to have disparate management measures. The American Lobster Management Board, the Commission's managing body for the species, is comprised of 10 states (Maine through Virginia) and the Federal Government. While ASMFC is not under the purview of the Magnuson-Stevens Act (MSA), the Federal Government, via NOAA Fisheries, supports the Commission's management of interjurisdictional fisheries. When federal support involves the implementation of management measures offshore (3-200 miles), those regulations must both be compatible with the Commission Plan and consistent with the National Standards outlined in MSA.

To date, the American lobster fishery has primarily been managed through input controls, such as biological measures and trap caps, which limit the amount of effort fishermen put into the fishery. Table 7 describes current management measures for all LCMAs which fall within SNE. All LCMAs have a minimum size of 3 ⅜", with the exception of LCMA 3 which is at 3 $^{17}/_{32}$". All LCMAs also have the same maximum size of 5 ¼", with the exception of LCMA 3 which is at 6 ¾". LCMAs 2, 5, and federal waters of Area 4 require v-notching of egg-bearing females; this is not required in LCMA 6, state waters of LCMA 4, or the SNE portion of LCMA 3. Regardless of their v-notch requirement, all LCMAs do have the same v-notch definition which prohibits retention if the notch is at least a 1/8 inch deep. All LCMAs also have history-based effort control programs with LCMA 2 having the lowest trap cap set at 800 traps.

In response to the findings of the 2009 Stock Assessment, the Board passed several addenda aimed at reducing exploitation (also known as fishing mortality) and scaling the size of the fishery (Table 8). Addendum XVII reduced exploitation by 10%. To comply with Addendum XVII, LCMAs 2, 5, and federal waters of LCMA 4 instituted mandatory v-notching, LCMA 3 increased the minimum gauge size by 1/32", and LCMAs 4, 5, and 6 instituted closed seasons. The Board also approved Addendum XVIII, which implemented a series of trap allocation reductions in LCMAs 2 and 3. The goal of this management action was to scale the size of the SNE fishery to the diminished size of the resource. These are not the first trap reductions taken in the lobster fishery as, previous to Addendum XVIII, LCMA 3 also implemented a 10% (Addendum IV) and 5% (Addendum XI) reduction in trap allocations. After Addendum XVIII, the Board approved Addenda XXI and XXII, which modified the trap transferability rules for LCMAs 2 and 3. The intent of these addenda was to increase the flexibility for fishermen to adjust to management measures aimed at reducing latent effort (traps that are not actively fished) through fishery consolidation. Management measures in these addenda include modifications to the single or individual ownership caps (otherwise known as trap banking) and aggregate ownership caps. These measures have not yet been implemented in federal waters.

Table 7. 2016 LCMA-specific Management Measures.

Mgmt Measure	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	OCC
Min Gauge Size	3 1/4"	3 3/8"	3 17/32"	3 3/8"	3 3/8"	3 3/8"	3 3/8"
Vent Rect.	1 15/16 x 5 3/4"	2 x 5 3/4"	2 1/16 x 5 3/4"	2 x 5 3/4"	2 x 5 3/4"	2 x 5 3/4"	2 x 5 3/4"
Vent Cir.	2 7/16"	2 5/8"	2 11/16"	2 5/8"	2 5/8"	2 5/8"	2 5/8"
V-notch requirement	Mandatory for all eggers	Mandatory for all legal size eggers	Mandatory for all eggers above 42°30'	Mandatory for all eggers in federal waters. None in state waters.	Mandatory for all eggers	None	None
V-Notch Definition[1] (possession)	Zero Tolerance	1/8" with or w/out setal hairs[1]	1/8" with or w/out setal hairs[1]	1/8" with or w/out setal hairs[1]	1/8" with or w/out setal hairs	1/8" with or w/out setal hairs[1]	State Permitted fisherman in state waters 1/4" without setal hairs Federal Permit holders 1/8" with or w/out setal hairs[1]
Max. Gauge (male & female)	5"	5 ¼"	6 3/4"	5 ¼"	5 ¼"	5 ¼"	State Waters none Federal Waters 6 3/4"
Season Closure				April 30-May 31	February 1-March 31	Sept 8-Nov 28	February 1-April 30

Table 8: Management action taken by the Board since the 2009 Benchmark Stock Assessment.

Year	Addendum	LCMA Affected	Action Taken	Implementation Date
2012	Addendum XVII	2	Mandatory v-notching	June 1, 2012
		3	Minimum gauge size increased from 3 ½" to 3 17/32"	January 1, 2013
		4	Mandatory v-notching Season closure from April 30 – May 31	July 1, 2012*
		5	Mandatory v-notching Season closure from Feb. 1 – Mar. 31	January 1, 2013
		6	Season closure from Sep 8-Nov 28	January 1, 2013
	Addendum XVIII	2	Trap allocation reduced by 25% on first year, reduced by 5% every year for following five years	2016
		3	Trap allocation reduction annually by 5% for five years	2016
2013	Addendum XIX	3	10% conservation tax assessed on any transfer or full business sale**	2013
	Addendum XX	3	Prohibitive to set lobster traps in Close Area II from Nov 1 – June 15	2013
	Addendum XXI	2	Recipient of a multi-LCMA trap allocation retains multi-LCMA history and declares which area(s) will be fished in a year; Single Ownership Cap/Aggregate Ownership Cap is 1,600 traps for any individual or corporation at a given time; Sunset Provision of two years on Single Ownership Cap	November 1, 2013***
		3	5% reduction for 5 years on active trap cap from 2,000 to 1,548; recipient of a multi-area trap allocation retains the multi-area history and declares which area(s) will be fished each fishing year	November 1, 2013***
	Addendum XXII	3	5% reduction for 5 years on single-ownership and aggregate ownership caps	***
2015	Addendum XXIV	2	Removed 10% conservation tax on full business transfers; traps shall be transferred in increments of 10; dual permit holders are allowed to transfer allocation with dual permit holders from other states	2015

*ASMFC's American Lobster Management Board voted to revise this closure from February 1 – March 31 to April 30- May 31 to maximize the conservation benefit of the closure. NOAA Fisheries implemented this change in Federal waters in November 2015.

**Conservation tax on partial transfers was reduced from 20% and replaced Section 4.1.1 of Addendum XIV

***NOAA Fisheries postponed rule making on Addenda XXI and XXII pending the outcome of SNE management in Addendum XXV.

2.5 Economic Status of Fishery

Total ex-vessel value in 2015 from the SNE lobster stock was just under $18.5 million (Table 9). The largest contributor was Rhode Island with 57% of the total value in SNE. This was followed by Massachusetts (20.9%) and New Jersey (12.2%). While there are a number of participants in the lobster fishery, a large portion of landings are harvested by a small portion of fishermen. In 2015, 57% of fishermen landed less than 10,000 pounds of lobster per year; however, these fishermen were responsible for just 9% of lobster landed in Massachusetts through Virginia. In contrast, just 2% of fishermen landed greater than 100,000 pounds each year but they were responsible for 20% of lobster landed in Massachusetts through Virginia. This suggests a significant portion of landings in the lobster fishery are made by a small number of participants. While the lobster fishery in New England is a distinct fishery with lobster being the primary catch, in the Mid-Atlantic, lobster is often a secondary component of catch in traps. Lobster fishermen in the southern extent of the species' range participate in a multi-species fishery in which harvesters catch lobster, Jonah crab, and black sea bass.

Table 9: 2015 ex-vessel values in the SNE lobster fishery.

	MA	RI	CT	NY	NJ	DE	MD	VA	Total
Ex-Vessel ($)	3,871,993	10,535,726	748,797	820,456	2,248,638	61,400	186,039	24,092	18,497,141
%	20.9%	57.0%	4.0%	4.4%	12.2%	0.3%	1.0%	0.1%	100.0%

*MA and RI values were calculated by multiplying landings from harvester reports by an average price based on dealer information.

In considering the economic status of the lobster fishery, it is also important to consider the Jonah crab fishery, as the two species are managed together and are primarily caught with the same gear. The Jonah crab fishery has experienced immense growth over the last 15 years. In the early 2000's, landings were roughly 2.6 million pounds and the fishery was valued at $1.5 million (ASMFC, 2015b). By 2014, landings increased to over 17 million pounds with a value exceeding $13 million (ASMFC, 2015b). It is believed that this rapid increase in landings is the result of an increase in demand as well as the poor condition of the SNE lobster sock, which has prompted fishermen to supplement their income with Jonah crab.

Table 10 shows 2015 Jonah crab landings and ex-vessel value by state and quarter. Landings primarily came from Massachusetts (~70%) and Rhode Island (~29%) with landings occurring throughout the year. It is important to note that Massachusetts and Rhode Island landings include those from SNE and the GOM/GBK stock, and as a result, may represent an overestimate of Jonah crab landings in SNE.

Table 10: 2015 pounds landed and ex-vessel value for the Jonah crab fishery by state and quarter. Massachusetts and Rhode Island landings include those from SNE and GOM/GBK.

		Quarter 1	Quarter 2	Quarter 3	Quarter 4
Massachusetts	Pounds	2,079,872	2,236,879	1,868,270	2,911,353
	Ex-Vessel	$ 1,582,678	$ 1,690,807	$ 1,406,117	$ 2,214,914
Rhode Island	Pounds	1,022,100	716,318	655,522	1,467,320
	Ex-Vessel	$ 777,179	$ 566,794	$ 508,208	$ 803,182
Connecticut, New York, New Jersey	Pounds	17,298	18,831	13,774	24,156
	Ex-Vessel	$ 5,773	$ 13,237	$ 11,848	$ 15,513
Delaware, Maryland, Virginia	Pounds	16,264	15,511	7,915	3,886
	Ex-Vessel	$ 12,600	$ 25,709	$ 30,856	$ 9,746

2.6 Management Tools Considered

At the August 2016 meeting, the Board provided the Plan Development Team (PDT) with a list of potential management tools to consider in this addendum. They included: gauge size changes, trap reductions, closed seasons, trip limits, v-notching, and culls. The PDT evaluated the effectiveness of these various tools, considering the ability to successfully achieve the management targets for egg production as well as the ability to monitor, administer, and enforce the management tools in the fishery. For this evaluation, the PDT made extensive use of the TC's expertise, including their three memos to the Board in January 2016, April 2016, and July 2016.

2.6.1 Gauge Size Changes

Analysis conducted by the TC suggests that, both inshore and offshore, gauge size changes are an effective management tool to increase egg production and decrease fishing mortality. Changes to the minimum and maximum gauge size are enforceable and provide a direct benefit of keeping lobsters in the water longer. Furthermore, gauge size changes are intricately tied to the biology of lobsters, with clear benefits in terms of egg production and fitness. These impacts can be accurately predicted, adding confidence to the results of management decisions. As a result, gauge size changes are considered for use in this document.

Work presented in the TC's July memo to the Board (see Appendix 5) suggests gauge size changes can be used to achieve up to a 60% increase in egg production. Increases in the minimum size result in larger increases in egg production; however, it is important to note that decreases to the maximum gauge size provide permanent protection to larger lobsters which have likely already survived stressful conditions. Changes to the gauge size may necessitate changes to the vent size as the harvestable window of lobster sizes narrows. This would allow a greater portion of undersized lobsters to exit the trap and reduce stress from handling.

The economic impacts of gauge size changes depend on how the change is implemented, as gradual changes to the gauge size over several years may dampen the reductions in harvest. Short-term impacts of gauge size changes include an immediate decrease in landings as there is a narrower slot from which to harvest lobsters; however, as the population stabilizes, landings settle into a common trajectory.

It is likely that the implementation of gauge size changes, or any of the proposed measures in the addendum, will create increased demand and shipments of lobsters from different LCMAs, particularly those LCMAs in the GOM/GBK which have different gauge sizes. For many states, the minimum and maximum sizes in place are possession limits, meaning harvesters and dealers must abide by their state's regulations. While these strict regulations improve enforcement of gauge sizes, it can complicate interstate commerce as lobsters legally caught in LCMA 1 have a smaller minimum gauge size of 3 ¼". Some states have developed dealer provisions to address this concern. Rhode Island and Connecticut allow dealers to possess smaller lobsters legally harvested in other LCMAs as long as those lobsters are not sold to consumers in their state. Dealers are required to have thorough documentation regarding the origin of lobsters below the state's minimum size and these smaller lobsters must be kept separate from those lobsters legally landed in the state. Massachusetts, because it has lobster landed from four LCMAs, is only able to enforce LCMA-specific gauge sizes at the harvester level but has implemented significant penalties for violations.

2.6.2 Trap Reductions

The relationship between the biology of lobsters and trap reductions is not well understood. One of the major sources of uncertainty is the effect of trap reductions on the exploitation rate. This is because current trap reductions reduce a fisherman's total trap allocation, which includes both actively fished traps and latent effort. As trap allocations are reduced, it is impossible to predict the tipping points between reductions in latent effort and reductions in the number of actively fished traps.

Currently, LCMAs 2 and 3 are going through a series of trap reductions aimed at reducing trap allocations (ASMFC, 2012). Specifically, Addendum XVIII established a 25% reduction in year 1 followed by a series of 5% reductions for 5 years in LCMA 2. In LCMA 3, Addendum XVIII established a series of 5% reductions for 5 years. The intent of these reductions is to scale the size of the SNE fishery to the reduced size of the SNE stock. These trap reductions were initiated in 2016 and, as a result, potential biological impacts of the trap reductions were not included in the 2015 Stock Assessment. It is important to note that these actions reduce a fishermen's total allocation (latent and active effort) and that through the Commission's Trap Transferability Program, fishermen can replace cut traps and immediately build back their number of actively fished traps. Some fishermen may choose to reduce effort or depart the fishery.

In an attempt to understand the impact of trap reductions on the SNE stock, the TC attempted to model the relationship between the number of traps actively fished (as opposed to total trap allocations which include latent effort), the exploitation rate, and associated egg production. Information on the number of actively fished traps was obtained from the 2015 Stock Assessment, which includes data from Massachusetts, Connecticut, Rhode Island and New York (Table 4). Data on the number of actively fished traps in states south of New York are not consistently collected and were not available for use by the TC. The analysis conducted by the TC uses data through quarter four of 2014. This means that in LCMAs 2 and 3, the analysis calculates potential increases in egg production as the result of on-going trap allocation reductions (includes latent and active effort) which began in 2016. The analysis suggests that, based on data from 1999-2013, a 25% reduction in the number of

actively fished traps may result in a 14.3% (95% CI: 3.5%-21.2%) reduction in exploitation. This equates to a 13.1% (95% CI: 2.6%-19.7%) increase in egg production.

Though the TC's analysis is based on the best available data, there are several concerns about the ability of trap reductions to achieve the projected increase in egg production. The first is that the above analysis assumes fishermen maintain a constant soak time before and after the reduction of their trap allocation. Some studies show this assumption is not true, and that fishermen reduce their soak times to compensate for fewer traps (i.e. fishermen haul fewer traps more frequently to maintain current exploitation rates)[3]. This results in decreased impacts to catch and much smaller increases in egg production. It is important to note that many of these studies were conducted on the inshore fishery and the ability of offshore fishermen to increase their number of trips and trap hauls is unknown. Secondly, the analysis assumes that historic changes in exploitation are only the result of active trap reductions. This assumption is not true, as previous management measures (gauge size changes, season closures, etc.) and general attrition in the fishery all contribute to the exploitation rate. Again, this results in an overestimate of egg production achieved by trap reductions. Thirdly, the analysis is based on reductions in the number of traps actively fished; however, trap allocation reductions decrease a combination of latent and active traps. This further inflates the expected increase in egg production as trap reductions remove effort that is not currently in the water. Finally, fishermen in LCMAs 2 and 3 can maintain their number of actively fished traps through the Trap Transferability Program, which was created to allow active fishermen to replace cuts in their number of active traps with purchased traps. This again results in an overestimate of egg production benefits. Given these four caveats, the TC's analysis primarily serves as a tool to provide guidance on the upper limit of egg production that may result from trap reductions. It is likely that the increase in egg production resulting from trap reductions would be lower than 13.1%.

While there are several caveats to this management tool, trap reductions are considered for use in this document. Given the tenuous relationship between traps fished and fishing mortality, the economic impacts of trap reductions are not clear. Analysis suggests fishermen may be able to reduce their soak time in order to maintain current harvest levels, thereby minimizing reductions in profit. However, some fishermen may also be encouraged to obtain trap allocations up to the trap cap in order to maintain their current business despite the reductions.

2.6.3 Closed Seasons

Closed seasons are a management tool which can be used to reduce pressure on the lobster stock at vulnerable times. A biological benefit of this tool is that it removes harmful stress sustained by lobsters when they are caught in a trap, hauled to the surface, and handled by fishermen. Analysis by the TC shows seasonal closures can achieve up to a 21.6% increase in egg production, provided fishermen do not drastically alter fishing behavior to compensate for the closure. The largest increases in egg production result from summer closures (July-September) when fishing mortality is highest. Furthermore, a summer closure protects female lobsters which have mated but have yet to extrude their eggs. Importantly, this analysis assumes that fishermen do not adapt to the implementation of a season closure by intensifying their effort during the rest of the year. It also assumes that season

[3] Miller, 1990; Fogarty and Addison, 1997.

closures, on an area-by-area basis, are implemented in a complementary manner as both lobsters and fishermen (i.e. dual permit holders) can move between LCMAs. Otherwise, actual increases in egg production may be lower than those predicted in the analysis.

An important consideration with closed seasons is the potential impact on the Jonah crab fishery. Particularly in SNE, the lobster fishery is evolving into a mixed crustacean fishery in which lobsters and Jonah crab can be caught with the same gear at different times of the year. Season closures would directly impact the Jonah crab fishery if traps must be taken out of the water. Allowing lobster traps to remain in the water during a closed season would greatly reduce the biological benefit of the management tool as lobsters would still be hauled, handled, and thrown overboard. As a result, if season closures are used, the timing should be considered to minimize impacts on the Jonah crab fishery.

Given the potential for season closures to result in biological benefits to the stock, season closures are considered for use in this document. Economic impacts of season closures include reduced profits at certain times of the year; however, studies suggest that gross revenues over the year may increase as the result of season closures. Analysis of the Maine lobster fishery by Chen and Townsend (1993) suggests closures of at least 3-4 months cause landings to be redistributed across seasons, which evens out prices and strengthens market values. SNE markets are more tenuous than those in Maine but may be strengthened by consolidation.

2.6.4 Trip Limits

While trip limits are frequently used as a management tool in other fisheries, to-date they have not been used in the directed lobster fishery. Overall, trip limits are an enforceable management tool which can be used to maintain catch over the harvestable year and potentially reduce exploitation. Trip limits allow both the lobster and Jonah crab fisheries to continue as lobster traps would still be allowed in the water.

There are several concerns about the effectiveness and equity of this management tool. Given the difference in vessel size and capacity between the inshore and offshore fleets, trip limits may disproportionately impact the offshore fleet which frequently takes multi-day trips. As a result, impacted fishermen may respond by increasing the number of trips taken each year to maintain current harvest levels. Trip limits may also encourage fishermen who typically harvest below the limit to increase their catch and maximize their potential harvest. This unintended consequence could result in increased landings, a result contradictory to the stated purpose of this Addendum. Furthermore, trip limits often result in increased discards and stress to the lobsters as they are hauled, handled, and returned to the water. A challenge in implementing trip limits is how states with fishermen harvesting from both the SNE stock and GOM/GBK stock should monitor compliance when only one area may have a trip limit.

Given these concerns, the TC recommended trip limits be considered in conjunction with a quota for the SNE stock. A quota, if properly enforced, can cap landings in a fishery and allow managers to increase or decrease the total catch for the year depending on the current stock status. Implementing a quota in the lobster fishery presents many challenges and questions. The establishment of a quota

requires tough discussions on how the total allowable catch will be set and if this will be allocated among jurisdictions, LCMAs, and/or seasons. An effective quota also requires good monitoring and enforcement, both of which need to be carefully considered prior to implementation. A particular challenge in the lobster fishery is how states with fishermen harvesting from both the SNE stock and GOM/GBK stock should monitor landings.

Given the challenges associated with implementing a trip limit and a quota in the SNE lobster fishery, and the stated intent of the Addendum to take quick and decisive action, trip limits and quotas are not considered for use in this document. The Board has not specified quotas as a management tool to consider in this addendum.

2.6.5 V-Notching

V-notching is a tool which has been used in the lobster fishery to protect reproductive females in the population. Currently, LCMAs 2, 5, and federal waters of LCMA 4 require mandatory v-notching; LCMA 6, state waters of LCMA 4, and the SNE portion of LCMA 3 do not. All areas use the same 1/8" definition for possessing a v-notch lobster, a less strict definition than the zero tolerance rule in LCMA 1. As a result, there is some concern that reproductive females who are protected in the Gulf of Maine receive less protection if they migrate south. While v-notching can be a valuable management tool when actively conducted, the value of this tool is predicated on high encounter and harvest rates because egg-bearing lobsters must be encountered by fishermen in order to be v-notched and protected. Given the significant reduction in landings in SNE, v-notching is not expected to produce a large benefit to the stock. Furthermore, the effectiveness of v-notching in SNE has been hindered in the past by issues with non-compliance and incorrect marking. As a result, v-notching is not considered for use in this addendum.

2.6.6 Culls

Lobsters which only have one claw are referred to as culls. Claws can be lost naturally, such as in an interaction with another lobster, or during handling by fishermen. Currently, culls can be legally landed in the lobster fishery. A prohibition on the harvest of culls may reduce fishing mortality; however, it may also encourage better handling practices, reducing the number of culls and the benefit of this management tool on the stock. Furthermore, should culls be prohibited, tolerances would have to be established in case a lobster loses a claw during the steam to port and a clear definition would be needed to address regeneration. Given these limitations, a prohibition on culls is not considered for use in this document.

2.7 Additional Issues Considered

2.7.1 Uniform Regulations

The Lobster FMP and associated addenda attempt to balance the need for regulatory consistency with the desire for area flexibility. Amendment 3 established seven LCMAs by which to manage the fishery. The intent of these LCMAs was to identify the different stock conditions in various parts of the fishery and recognize the different measures needed to successfully manage the species in each area. Amendment 3 also created Lobster Conservation Management Teams (LCMTs) which are intended to inform the Board of conditions in various areas and to advise the Board on LCMA management measures. LCMTs have provided an avenue for industry participation in the management of lobster.

Nevertheless, the Board has recognized the need for a certain amount of standardization in the fishery. For example, all LCMAs have a minimum gauge size of at least 3 ¼ inches, a maximum gauge size, and a prohibition on the harvest of berried lobsters (females bearing eggs). Most recently, the Board expressed the importance of all permitted fishermen having a single uniform trap allocation, and implemented the Trap Tag Database Program to ensure congruence amongst the states and federal government.

Currently, LCMAs use different suites of management measures; however, the Board has expressed some interest in standardizing regulations across LCMAs in SNE. Possible combinations of standardization include creating uniform management measures for the inshore areas (LCMAs 2, 4, 5, and 6) or grouping LCMAs by region. In their April 25th memo to the Board, the TC outlined the costs and benefits of standardizing regulations in SNE. Overall, the report stated that standardizing biological measures would improve enforcement and the stock assessment process but may negatively impact industry by creating clear winners and losers in the fishery. This is especially true in regard to changes to the gauge size, as uniform increases in the minimum size will primarily impact inshore fishermen while uniform decreases in the maximum size will primarily impact offshore fishermen. Uniform regulations, in the context of this addendum, may also create implementation challenges as various LCMAs would have to cooperate to identify a common suite of tools which enable multiple areas to achieve the specified increase in egg production. By contrast, differing Addendum XXV measures, particularly across states and adjacent LCMAs, may complicate needed management and undermine the potential benefits of the proposed measures as lobsters move from area to area.

2.7.2 Stock Boundaries

A complicating factor in the management of lobster is that the boundaries of the LCMAs do not align with the biological boundaries of the stocks (SNE vs. GOM/GBK). This is particularly problematic in LCMA 3 which spans both SNE and GOM/GBK. The intricacy of the stock boundaries is further complicated by the fact that many vessels fishing out of Rhode Island and Massachusetts, which are harvesting lobsters on Georges Bank, must travel through the SNE stock area to reach their port of landing. In addition, these vessels may be permitted to fish in multiple management areas, including areas that span both lobster stocks.

To date, there have been no permit requirements to delineate within which stock an Area 3 fisherman is eligible to fish. Management action taken in response to the 2009 stock assessment was applied throughout LCMA 3, including portions of the GOM/GBK stock. Given that the conservation burden of this addendum applies only to SNE, new conservation rules must either apply to all Area 3 fishermen regardless of location and stock fished (with economic implications on the GOM/GBK fisheries) or new measures will have to be stock specific.

2.7.3 De Minimis

Addendum I to Amendment 3 of the American Lobster FMP allows states which meet specific criteria to apply for *de minimis* status. According to the ASMFC Interstate Fisheries Management Program Charter, *de minimis* is defined as a situation in which, under the existing conditions of the stock and fishery, the conservation and enforcement actions taken by an individual state are expected to contribute insignificantly to a coastwide conservation program. Through Addendum I, states whose

commercial landings in the most recent two years do not exceed an average of 40,000 pounds are eligible to apply for *de minimis* status. While *de minimis* states are required to implement the coastwide requirements contained in Section 3.1 of Amendment 3, the Board can determine which other components of the plan a *de minimis* state must adopt. So far, the Board has exempted *de minimis* states from conducting biological sampling of their lobster fishery, as specified in Addendum X.

In 2016, the Board granted *de minimis* status to Delaware, Maryland, and Virginia. Together, these states contribute less than 3% of landings in SNE, and less than 0.1% of landings coastwide. The lobster fishery in these states is, for the most part, a multi-species fishery primarily involving black sea bass. Given the limited participation in the lobster fishery in these states, there is concern that the management measures implemented as a result of Addendum XXV will impose a large and costly administrative burden on the *de minimis* states relative to the size of their lobster fisheries. Since the Board can specify which management measures *de minimis* states must adopt, the Board does have the ability to exempt *de minimis* states from the management measures implemented as a result of Addendum XXV.

3.0 Management Options

The following management issues are intended to increase egg production and decrease fishing mortality in SNE. Management tools which are considered for use in this document include gauge size changes, trap allocation reductions, and season closures. The management options are presented with the intent that each LCMT can choose how they would like to achieve the targeted increase in egg production. During the public comment period, LCMTs are encouraged to submit preliminary proposals on how they would prefer to achieve the various increases in egg production. Approximately one month after the Board chooses an egg production target and selects management alternatives for the issues contained in this addendum, proposals on preferred management measures to achieve the required increase in egg production will be due from the LCMTs. These proposals will be reviewed by the PDT, TC, and Board. If a proposal is not received from a LCMT, states with permitted individuals in that LCMA will work together to choose the management measures that will be implemented to achieve the target increase in egg production. The PDT encourages that states do not implement divergent management measures for a single LCMA; each state should agree on the management measures in a LCMA.

Analysis contained in this document uses data through quarter four of 2014. As a result, 2014 represents current stock status in this addendum and changes in egg production are measured from the 2014 baseline. Table 8 shows the management action implemented by each LCMA before and after 2014. Management actions implemented after 2014 count towards the egg production target chosen by the Board. The value of egg production will depend on the management tool used and the extent of the management action taken, and will be reviewed by the Board. Other management measures which were not implemented as a result of an addendum but which a LCMA believes contributed to a measurable increase in egg production since 2014 may be brought before the Board through the LCMT proposal process.

This document considers potential changes to the minimum and maximum carapace length at which lobsters can be harvested. Carapace length is defined as the straight-line measurement from the rear

of the eye socket parallel to the centerline of the carapace to the posterior edge of the carapace. LCMTs would use Table 11 or Appendix 5 to determine the minimum and maximum size limit which would achieve the targeted increase in egg production.

This document also considers trap allocation reductions. LCMTs would use Table 12 to determine the impacts of a 25% trap reduction. Should a LCMA, which is currently going through a series of trap reductions as a part of Addendum XVIII, decide to complete additional trap reductions to achieve the egg production target, these would occur following the final year of trap reductions specified in Addendum XVIII. LCMAs that have previously agreed to reduce traps can accelerate these on-going trap cuts in order to begin implementation of any additional trap reductions and meet the timeline of this addendum. Accelerated trap reductions will not count for a higher level of egg production than those implemented on the scheduled outlined in Addendum XVIII.

This document also considers season closures. LCMTs would use Table 13 to determine the dates of the season closure and the expected increase in egg production.

Issue 1: Target Increase in Egg Production

This issue asks what the target increase in egg production should be in SNE. The Board has stated that the goal of Addendum XXV is to respond to the decline of the SNE stock and its decline in recruitment while preserving a functional portion of the lobster fishery in this area. The Board also identified increases in egg production ranging from 20% to 60%. Option A: 0% Increase in Egg Production is included primarily to add context to the Board's deliberations. Larger increases in egg production have the potential to provide greater benefits to the stock but are also more likely to negatively affect industry.

Option A: 0% Increase in Egg Production (Status Quo)

Under this option there would be no targeted increase in egg production and no changes to management would be made through this addendum. All measures would remain the same as listed in Table 7.

Option B: 20% Increase in Egg Production

Under this option, LCMAs must take management action to increase egg production by 20% from current levels. 2014 represents current stock status in this addendum and changes in egg production are measured from the 2014 baseline.

Option C: 30% Increase in Egg Production

Under this option, LCMAs must take management action to increase egg production by 30% from current levels. 2014 represents current stock status in this addendum and changes in egg production are measured from the 2014 baseline.

Option D: 40% Increase in Egg Production

Under this option, LCMAs must take management action to increase egg production by 40% from current levels. 2014 represents current stock status in this addendum and changes in egg production are measured from the 2014 baseline.

Option E: 60% Increase in Egg Production

Under this option, LCMAs must take management action to increase egg production by 60% from current levels. 2014 represents current stock status in this addendum and changes in egg production are measured from the 2014 baseline.

Issue 2: Management Tools

This issue asks whether management tools can be used independently or must be used in combination with one another. Gauge size changes, trap reductions, and season closures are potential management tools to achieve the targeted increase in egg production. The Board has the greatest confidence in gauge size changes to achieve meaningful biological impacts. There is less confidence in trap reductions and season closures as the effectiveness of both tools is dependent on fishermen maintaining their current fishing behavior.

Option A: Management Tools Can Be Used Independently

Under this option, gauge size changes, trap reductions, and season closures can be used independently, or in conjunction with one another, to achieve the target increase in egg production. For reference, analysis suggests that on their own, gauge size changes can account for up to a 60% increase in egg production, quarterly season closures can account for up to a 21.6% increase in egg production, and a 25% trap reduction in active traps can account for up to a 13.1% increase in egg production.

Option B: Gauge Size Changes and Season Closures Can Be Used Independently

Under this option, gauge size changes and season closures can be used independently, or in conjunction with one another, to achieve the target increase in egg production. Trap reductions cannot be used to achieve the target increase in egg production. For reference, analysis suggests that on their own, gauge size changes can account for up to a 60% increase in egg production and quarterly season closures can account for up to a 21.6% increase in egg production.

Option C: Trap Reductions and Season Closures Must Be Used In Conjunction with Gauge Size Changes

Under this option, gauge size changes can be used as a sole management measure to achieve the targeted increase in egg production; however, trap allocations and season closures must be used in conjunction with gauge size changes. Furthermore, season closures and trap reductions cannot account for more than half of the target increase in egg production. For example, if the target increase in egg production is 40%, trap reductions or season closures cannot account for more than a 20% increase in egg production.

Issue 3: Recreational Fishery

This issue asks whether the recreational fishery must abide by the management measures taken in this addendum. Recreational fishermen are those individuals who do not offer for sale their harvest of lobsters and are identified by their jurisdiction's recreational fishing permit. Historically, the recreational fishery has been subject to gauge size changes and season closures while trap reductions have only impacted the commercial fleet.

Option A: Recreational Fishery Must Abide by Management Action Taken in Addendum
Under this option, recreational fishermen in the lobster fishery must abide by all of the management measures implemented in their LCMA as a result of this addendum. This could include gauge size changes, season closures, and trap reductions.

Option B: Recreational Fishery Must Abide by Gauge Size Changes and Season Closures
Under this option, recreational fishermen in the lobster fishery must abide by any gauge size changes and season closures that are implemented in their LCMA as a result of this addendum. Recreational fishermen would be exempt from trap reductions taken in the LCMA in which they fish.

Option C: Recreational Fishery Must Abide by Gauge Size Changes
Under this option, recreational fishermen in the lobster fishery must abide by any gauge size changes that are implemented as a result of this addendum. Recreational fishermen would be exempt from any trap reductions or season closures implemented in the LCMA in which they fish. Recreational fishermen with a trap allocation would be allowed to keep their pots in the water and land lobster during a season closure that is implemented as a result of this addendum.

Issue 4: Season Closures
This issue asks how seasonal closures, which are established as a result of this Addendum, should be implemented. Season closures implemented in LCMAs 4, 5, and 6 as a result of Addendum XVII currently require lobster traps to be removed from the water and prohibit harvesters from taking, landing, or selling lobster from that LCMA during the closure. Connecticut and New Jersey allows lobster traps to remain in the water only if the license holder has a permit for another species. Since Addendum XVII, a fishery management plan was established for Jonah crab, and the Jonah crab and lobster fisheries are now jointly managed as a mixed-crustacean fishery. As such, the removal of traps during a season closure may negatively impact the Jonah crab fishery. The greatest biological benefit of a season closure is achieved when traps are removed from the water as the hauling and discarding of lobsters can increase stress and predation.

Option A: Lobster Traps Removed from Water
Under this option, lobster traps must be removed from the water during a season closure. No lobsters can be landed by any gear type including non-trap gear (trawls, gill nets, etc.) and trap gears (lobster traps, fish pots, whelk pots, etc.). During a season closure, lobster potters will have a two week period to remove lobster traps from the water and may set baited lobster traps one week prior to the end of the closed season.

Sub-Option A: Most Restrictive Rule Applies: Under this sub-option the most restrictive rule would apply to season closures. For example, if a fisherman is authorized to fish in LCMAs 2 and 3, and LCMA 2 implements a season closure, that fisherman cannot fish in either LCMA 2 or 3 during the closure.

Sub-Option B: Most Restrictive Rule Does Not Apply: Under this sub-option, the most restrictive rule would not apply to season closures. For example, if a fisherman is authorized to fish in LCMAs 2 and 3, and LCMA 2 implements a season closure while LCMA 3 does not, that fisherman could still fish in LCMA 3 while LCMA 2 is closed. The most restrictive rule would apply in the Area 2-3 overlap and the Area 3-5 overlap zones.

Option B: No Possession of Lobsters While Fishing

Under this option, no commercial harvester may possess on board or land lobsters during a season closure. Lobster traps, as well as other gears which harvest lobster, may remain in the water during a season closure and Jonah crab and whelk may be harvested during a season closure.

Sub-Option A: Most Restrictive Rule Applies: Under this sub-option the most restrictive rule would apply to season closures. For example, if a fisherman is authorized to fish in LCMAs 2 and 3, and LCMA 2 implements a season closure, that fisherman cannot fish in either LCMA 2 or 3 during the closure.

Sub-Option B: Most Restrictive Rule Does Not Apply: Under this sub-option, the most restrictive rule would not apply to season closures. For example, if a fisherman is authorized to fish in LCMAs 2 and 3, and LCMA 2 implements a season closure while LCMA 3 does not, that fisherman could still fish in LCMA 3 while LCMA 2 is closed. The most restrictive rule would apply in the Area 2-3 overlap and the Area 3-5 overlap zones.

Option C: Limit for Non-Trap Bycatch Fisheries

Under this option, a fisherman with a lobster trap allocation may not possess on board or land lobsters during a season closure but lobster traps may remain in the water and Jonah crab and whelk may be harvested. Individuals who are permitted to land lobsters incidentally caught in non-trap gears may continue to land the bycatch allowance established in Amendment 3 of 100 lobsters per day (based on a 24 hour period) up to a maximum of 500 lobster per trip, for trips 5 days or longer. Addendum I categorized the black sea bass pot fishery as a non-trap fishery. As a result, vessels issued an Area 5 trap waiver to fish for black sea bass are allowed to land lobster equivalent to the bycatch allowance established for non-trap gears.

Sub-Option A: Most Restrictive Rule Applies: Under this sub-option the most restrictive rule would apply to season closures. For example, if a fisherman is authorized to fish in LCMAs 2 and 3, and LCMA 2 implements a season closure, that fisherman cannot fish in either LCMA 2 or 3 during the closure.

Sub-Option B: Most Restrictive Rule Does Not Apply: Under this sub-option, the most restrictive rule would not apply to season closures. For example, if a fisherman is authorized to fish in LCMAs 2 and 3, and LCMA 2 implements a season closure while LCMA 3 does not, that fisherman could still fish in LCMA 3 while LCMA 2 is closed. The most restrictive rule would apply in the Area 2-3 overlap and the Area 3-5 overlap zones.

Issue 5: Uniform Regulations

This issue asks whether management measures should be uniform across LCMAs. See Section 2.7.1 Uniform Regulations for additional information.

Option A: Regulations Are Not Uniform Across LCMAs (Status Quo)

Under this option, regulations would not need to be standardized across management areas. LCMAs would be allowed to develop their own plans for how to achieve the target increase in egg production.

Option B: Regulations Are Uniform Across LCMAs 4 and 5
Under this option, gauge size changes and season closures would be standardized in LCMAs 4 and 5. Existing season closures implemented as a result of Addendum XVII must be reconciled such that they achieve the decrease in fishing mortality specified in Addendum XVII and the increase in egg production specified in Addendum XXV.

Option C: Regulations Are Uniform Across LCMAs 2, 4, 5, and 6
Under this option, gauge size changes and season closures would be standardized in LCMAs 2, 4, 5 and 6. Existing season closures implemented as a result of Addendum XVII must be reconciled such that they achieve the decrease in fishing mortality specified in Addendum XVII and the increase in egg production specified in Addendum XXV.

Issue 6: Implementation of Management Measures in LCMA 3
The following management options are intended to determine where in LCMA 3 the management measures selected in this addendum will apply. See Section 2.7.2 Stock Boundaries for additional information. Due to implications to the Trap Tag Data Base Program, trap reductions must be applied throughout LCMA 3.

Option A: Maintain LCMA 3 as a Single Area (Status Quo)
Under this option, the current boundaries of LCMA 3 would be maintained. Management measures in this document would apply to all LCMA 3 permit holders, including those that fish in the GOM/GBK stock.

Option B: Split LCMA 3 along the 70°W Longitude Line
Under this option, LCMA 3 would be split along the 70°W longitude line to create an eastern section and a western section in LCMA 3 (see Appendix 1). The eastern portion of LCMA 3 would be comprised of areas east of the 70°W longitude line which are currently a part of the GOM/GBK stock. The western portion of LCMA 3 would be comprised of areas west of the 70°W longitude line which are currently a part of the SNE stock.

LCMA 3 permit holders would make a one-time declaration into either the eastern or western portion of LCMA 3 and would only be allowed to fish in their declared portion of LCMA 3. Trap tags would be amended to include "3E" for fishermen exclusively fishing in the eastern portion of the LCMA and "3W" for fishermen exclusively fishing in the western portion of the LCMA. Traps with "3E" trap tags can only be fished in the eastern portion of LCMA 3 while traps with "3W" can only be fished in the western portion of LCMA 3.

LCMA 3 permits and trap allocations may still be transferred as specified in Addendum XXI and the transfer recipient will designate in which section he/she would like to fish. Season closures and gauge size changes that are implemented as a result of this addendum would not apply for fishermen who elect to fish exclusively in the eastern portion of LCMA 3.

Option C: Split LCMA 3 along the 70°W Longitude Line with an Annual Declaration

Under this option, LCMA 3 would be split along the 70°W longitude line to create an eastern section and a western section in LCMA 3 (see Appendix 1). The eastern portion of LCMA 3 would be comprised of areas east of the 70°W longitude line which are currently a part of the GOM/GBK stock. The western portion of LCMA 3 would be comprised of areas west of the 70°W longitude line which are currently a part of the SNE stock.

On an annual basis, current LCMA 3 fishermen could elect to fish exclusively in the eastern portion of LCMA 3. Fishermen who do not choose this option could fish throughout the entire LMCA 3; however, they will be held to the stricter management measures of the two sections, as per the most restrictive rule (ASMFC, 2009). Fishermen can elect to fish exclusively in the eastern portion of LCMA 3 at the start of the fishing year but not during a fishing season. Trap tags would be amended to include "3E" for fishermen exclusively fishing in the eastern portion of the LCMA and traps with "3E" trap tags can only be fished in the eastern portion of LCMA 3. All other LCMA 3 trap tags can be fished in the eastern or western portions of LCMA 3.

LCMA 3 permits and trap allocations may still be transferred as specified in Addendum XXI and the transfer recipient will designate at the start of the fishing year in which section he/she would like to fish. Season closures and gauge size changes adopted in this addendum would not apply for fishermen who elect to fish exclusively in the eastern portion of LCMA 3.

Option D: Split LCMA 3 along the 70°W Longitude Line with an Overlap Area

Under this option, LCMA 3 would be split along the 70°W longitude line to create an eastern section and a western section in LCMA 3 with an overlap area of 30' on either side of the 70°W longitude line. The eastern boundary of the LCMA 3 overlap would be comprised of the area west of the 69° 30' W longitude line. The western boundary of the overlap would be comprised of the area east of 70° 30' W longitude line. Within this overlap area, permit holders who declare fishing activity in either the eastern or western portions of LCMA 3 would be allowed to fish for Lobster or Jonah crab regardless of their LCMA 3 sub-area declaration. The western portion of LCMA 3 would be comprised of areas west of the 70° 30' W longitude line which are currently a part of the SNE stock. The eastern portion of LCMA 3 would be comprised of areas east of the 69° 30' W longitude line which are currently a part of the GOM/GBK stock.

On an annual basis, LCMA 3 fishermen could elect to fish exclusively in the western or eastern portions of LCMA 3, while being allowed to fish annually in the overlap zone without the need to change their area declaration. In the overlap zone, the fishermen would be held to the management measures of the sub-area declared. Fishermen can elect to fish exclusively in either portion of LCMA 3 at the start of the fishing year but not during a fishing season. Trap tags would be amended to include "3E" for fishermen exclusively fishing in the eastern portion of the LCMA and "3W" for fishermen exclusively fishing in the western portion of the LCMA. Traps with "3E" trap tags can only be fished in the eastern portion of LCMA 3 or the overlap area while traps with "3W" can only be fished in the western portion of LCMA 3 or the overlap area.

LCMA 3 permits and trap allocations may still be transferred as specified in Addendum XXI and the transfer recipient will designate at the start of the fishing year in which section he/she would like to fish. Season closures and gauge size changes adopted in this addendum would not apply for fishermen who elect to fish exclusively in the eastern portion of LCMA 3.

Issue 7: Management Action in De Minimis States

This issue asks whether de minimis states can be exempt from implementing the management measures adopted in this Addendum. See Section 2.7.3 De Minimis for additional information.

Option 1: De Minimis States Must Implement Provisions of Addendum XXV (Status Quo)

Under this option, *de minimis* states must implement all management measures adopted as a part of Addendum XXV.

Option 2: De Minimis States Exempt from Provisions of Addendum XXV

Under this option, a *de minimis* state is not required to implement the management measures adopted under Addendum XXV provided the *de minimis* state meets the following conditions:

a) Close the lobster fishery in the *de minimis* state to new entrants. A fisherman can complete a full business sale to another fisherman eligible to land lobsters in the same state.
b) Allow only lobster permit/license holders of the *de minimis* state to land lobsters in that state.
c) Limit landings in the *de minimis* state lobster fishery to the *de minimis* level of no more than 40,000 lbs. annually.

Table 11: Changes in the gauge size inshore (LCMAs 2, 4, 5, and 6) and offshore (LCMA 3) and the corresponding effects in egg production, exploitation, SSB, reference abundance, and catch. Each LCMT may use this table to propose how they will achieve the targeted increase in egg production.

		Min	Max	Harvest Window (mm)	Egg Production	Exploitation	Spawning Stock Biomass	Reference Abundance	Catch
20%	**Inshore**	88mm (3-15/32")	105mm (4-1/8")	17 (0.7")	20%	-18%	20%	9%	-11%
		91mm (3-9/16")	115mm (4 ½")	24 (0.9")	18%	-22%	22%	11%	-14%
		92mm (3-5/8")	165mm (6 ½")	73 (2.9")	20%	-27%	25%	13%	-17%
	Offshore	91mm (3-9/16")	105mm (4-1/8")	14 (0.6")	22%	-21%	22%	9%	-13%
		94mm (3-11/16")	115mm (4 ½")	21 (0.8")	20%	-26%	24%	12%	-17%
		95mm (3 ¾")	165mm (6 ½")	70 (2.8")	21%	-28%	26%	13%	-19%
30%	**Inshore**	94mm (3-11/16")	115mm (4 ½")	21 (0.8")	31%	-36%	38%	19%	-24%
		94mm (3-11/16")	125mm (4-9/10")	31 (1.2")	29%	-35%	36%	18%	-23%
	Offshore	96mm (3-25/32")	115mm (4 ½")	19 (0.7")	29%	-34%	34%	16%	-24%
		97mm (3-4/5")	165mm (6 ½")	68 (2.7")	31%	-38%	38%	18%	-27%
40%	**Inshore**	96mm (3-25/32")	115mm (4 ½")	19 (0.7")	40%	-43%	49%	23%	-30%
		96mm (3-25/32")	165mm (6 ½")	69 (2.7")	37%	-42%	46%	22%	-29%
		97mm (3-4/5")	165mm (6 ½")	68 (2.7")	43%	-46%	53%	25%	-33%
	Offshore	98mm (3-27/32")	165mm (6 ½")	67 (2.6")	39%	-45%	46%	22%	-33%
		99mm (3-7/8")	165mm (6 ½")	66 (2.6")	41%	-47%	49%	23%	-35%
60%	**Inshore**	99 mm (3-7/8")	115mm (4 ½")	16 (0.6")	60%	-56%	71%	32%	-42%
		101mm (3-29/32")	165mm (6 ½")	64 (2.5")	59%	-59%	76%	35%	-45%
	Offshore	102mm (4")	115mm (4 ½")	13 (0.5")	62%	-60%	71%	31%	-47%
		103mm (4-1/16")	165mm (6 ½")	62 (2.4")	63%	-63%	75%	34%	-50%

Table 12: Trap reductions in active SNE traps and the corresponding effects in egg production and exploitation. "All years" include data from 1981-2013 and "recent years" include data from 1999-2013. This split is done to reflect two apparent regimes in the relationship between fishing exploitation and actively fished traps. This table presumes that every trap reduced is active and that latent traps purchased through the Trap Transferability Program do not replace reduced active traps.

Years	Trap Reduction	Egg Production	Exploitation	Spawning Stock Biomass	Catch
All Years (1981-2013)	25%	9.6% (95% CI: 4.5%-13.0%)	-11.6% (95% CI: 6.5% - 16.3%)	14.4%	-6.9%
Recent Years (1999-2013)	25%	13.1% (95% CI: 2.6% - 19.7%)	-14.3% (95% CI: 3.5% - 21.2%)	15.6%	-10.2%

Table 13: Season closures in SNE and the corresponding effects in egg production, exploitation, SSB, and catch. Each LCMT may use this table to propose how they will achieve the targeted increase in egg production. This table assumes that fishermen do not intensify fishing effort during open seasons.

Season Closure	Egg Production	Exploitation	Spawning Stock Biomass	Catch
Winter (Jan-March)	3.0%	-2.1%	2.3%	-0.7%
Spring (April-June)	15.0%	-10.8%	16.0%	-1.7%
Summer (July-Sept)	21.6%	-26.0%	15.5%	-12.3%
Fall (Oct-Dec)	8.1%	-13.6%	8.4%	-4.2%

4.0 Monitoring

Given that Addendum XXV represents an initial response to the results of the 2015 Stock Assessment, monitoring is necessary to determine the need and extent of future management action. The stated goal of this addendum is to increase egg production and reduce fishing mortality. As a result, the exploitation rate of the SNE stock will be monitored. If a reduction in fishing mortality and a corresponding increase in egg production is not observed following the implementation of this addendum, the management tools implemented by this document will be re-evaluated. Furthermore, in order to determine the extent of future management action, model-free abundance indicators for the SNE stock will be updated each year as a part of the annual Fishery Management Plan Review. This includes information on spawning stock abundance, recruit abundance, young-of-year indices, and survey encounter rates.

5.0 Compliance

If the existing lobster management plan is revised by approval of this Draft Addendum, the American Lobster Management Board will designate dates by which states will be required to implement the

addendum. A final implementation schedule will be identified based on the target egg production and management tools chosen. In August 2016, the Board initially specified a two year implementation timeline; however, the length of the phase-in period may change with the degree of egg production increase chosen (i.e. a 60% increase in egg production may necessitate a longer implementation period than a 20% increase in egg production). The compliance schedule will take the following format:

XXXXX: States must submit programs to implement Addendum XXV for approval by the American Lobster Management Board. These programs must reflect the management changes that will occur in each LCMA for which the state has a permitted individual.

XXXXX: The American Lobster Management Board approves state proposals

XXXXX: All states must implement Addendum XXV through their approved management programs. States may begin implementing management programs prior to this deadline if approved by the American Lobster Management Board.

6.0 Recommendation for Federal Waters

The SNE lobster resource has been reduced to very low levels. ASMFC believes additional fishery restrictions are necessary to prevent further depletion of the resource.

Management of American lobster in the EEZ is the responsibility of the Secretary of Commerce through the National Marine Fisheries Service (NMFS). ASMFC recommends the federal government promulgate all necessary regulations in Section 3.0 to implement complementary measures to those approved in this addendum.

7.0 References

Atlantic States Marine Fisheries Commission (ASMFC). 1997. Amendment 3 to the Interstate Fishery Management Plan for American Lobster.

ASMFC. 1999. Addendum I to Amendment 3 to the American Lobster Fishery Management Plan.

ASMFC. 2004. Addendum IV to Amendment 3 to the American Lobster Fishery Management Plan.

ASMFC. 2007a. Addendum X to Amendment 3 to the American Lobster Fishery Management Plan.

ASMFC. 2007b. Addendum XI to Amendment 3 to the American Lobster Fishery Management Plan.

ASMFC. 2012a. Addendum XVII to Amendment 3 to the American Lobster Fishery Management Plan.

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ASMFC. 2015a. American Lobster Benchmark Stock Assessment and Peer Review Report.

ASMFC. 2015b. Interstate Fishery Management Plan for Jonah Crab.

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Dominion Nuclear Connecticut, Inc. (DNC). 2013. Lobster studies. In: Monitoring the Marine Environment of Long Island Sound at Millstone Power Station, Waterford, CT. Annual Report 2012. 91 – 124pp. Appendix 1

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MacKenzie, B.R. 1988. Assessment of temperature effects on interrelationships between stage durations, mortality, and growth in laboratory-reared Homarus americanus Milne Edwards. J. Exp. Mar. Biol. Ecol. 116: 87-98.

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Powers, J., G.Lopez , R.Cerrato, and A. Dove. 2004. Effects of thermal stress on Long Island Sound lobster, H. americanus. Proceedings of the LIS Lobster Research Initiative working Meeting. 3-4 May, 2004, University of CT Avery Point, Groton, CT.

Appendix 1: LCMAs, stock boundaries, and NMFS statistical areas.

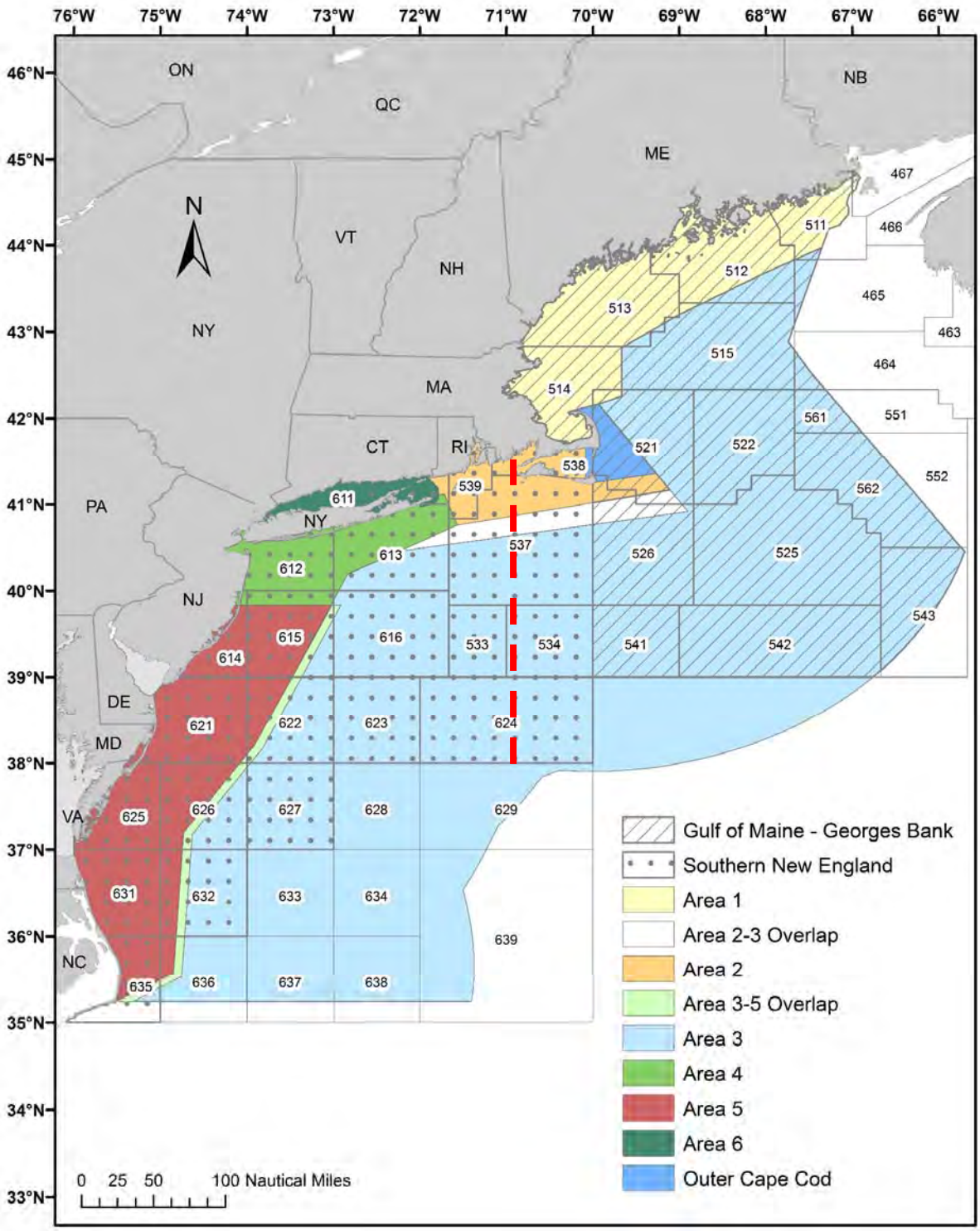

Figure 1. Chart of Lobster stock units (GOM, GMB, and SNE), management conservation areas (1-6 and OCC), and NMFS statistical areas. The red dashed line represents the 70°W longitude line

Appendix 2: Southern New England Model Free Abundance Indicators

SPAWNING STOCK ABUNDANCE
Mean weight (g) per tow of mature females

Survey	NESFC		MA		RI		CT	
	Fall	spring	fall	spring	Fall	spring	Fall	spring
1981	198.93	15.71	9.21	99.78	161.55	111.57		
1982	156.07	118.29	50.04	26.42	53.52	43.52		
1983	120.20	35.51	0.72	59.62	87.86	141.69		
1984	192.38	44.50	4.04	51.67	203.58	259.91	2331.33	
1985	132.96	138.13	1.88	36.90	125.09	60.22	1040.42	1155.01
1986	59.83	61.35	87.60	19.06	128.49	136.78	1548.94	751.75
1987	143.76	67.33	44.51	35.12	475.51	86.13	1869.91	932.49
1988	122.36	121.34	13.16	46.33	662.07	100.75	1081.60	639.82
1989	124.57	44.65	233.88	70.68	363.92	151.06	853.74	1193.87
1990	175.83	75.87	59.02	150.21	230.17	258.72	1818.59	2369.93
1991	160.99	53.14	125.79	236.11	367.25	698.35	2185.29	2692.42
1992	178.88	61.38	179.80	47.84	321.95	117.18	1905.99	3598.02
1993	139.25	71.48	99.33	25.59	1286.74	1595.77	3335.55	2320.25
1994	54.70	36.40	126.00	82.42	359.96	164.37	3402.43	1170.49
1995	145.39	10.18	10.89	92.76	410.53	153.14	2253.58	3302.56
1996	227.08	32.01	59.61	54.16	861.32	353.55	3018.00	3882.27
1997	121.74	137.20	29.11	225.15	654.91	439.93	7173.56	5994.27
1998	161.20	44.97	52.73	138.81	251.53	286.59	2573.44	7738.30
1999	69.56	122.59	24.53	81.12	171.54	324.62	2546.24	8261.90
2000	95.66	60.02	20.08	142.78	268.99	303.32	1744.69	4430.68
2001	95.78	36.43	21.28	16.61	267.62	535.45	1513.56	3363.78
2002	85.56	146.86	0.00	44.75	35.68	572.35	365.12	2044.42
2003	52.83	31.71	0.00	5.97	205.85	110.43	1187.14	698.04
2004	47.10	47.01	37.18	3.58	288.49	591.60	626.96	522.99
2005	110.36	42.31	101.87	23.02	353.53	243.36	473.26	479.71
2006	65.03	90.62	0.00	60.77	465.26	788.63	219.99	465.37
2007	44.60	34.20	41.79	10.32	350.43	206.96	188.98	595.89
2008	25.90	58.14	0.00	19.67	401.73	194.57	248.63	760.88
2009	36.92	24.49	3.95	31.29	184.35	250.00	305.31	371.95
2010	101.74	46.39	130.73	32.09	166.07	177.64	na	361.72
2011	89.95	22.79	36.96	8.55	148.47	152.43	30.24	64.00
2012	205.12	39.64	14.13	9.93	31.16	118.13	6.28	88.85
2013	52.95	42.05	23.96	35.49	2.02	67.76	24.56	39.81
2014	50.93	198.30	0.10	20.95	190.12	24.98	23.00	34.02
2015	na	44.83	54.57	1.72	62.34	15.60	na	23.02
2011 - 2015 ave.	99.74	69.52	25.95	15.33	86.82	75.78	21.02	49.94
25th	93.14	42.48	12.59	36.45	205.28	131.88	1431.95	1162.75
median	128.76	60.69	36.81	52.92	295.47	259.32	1887.95	2369.93
75th	161.04	87.24	90.53	104.27	426.78	375.15	2553.04	3740.14

FULL RECRUIT ABUNDANCE (SURVEY)
Abundance of lobsters > 85 mm CL (sexes combined)

Survey	NEFSC		MA		RI		CT	
	Fall	spring	fall	spring	Fall	spring	Fall	spring
1981	0.24	0.03	0.00	0.02	0.01	0.03		
1982	0.17	0.13	0.07	0.02	0.04	0.03		
1983	0.13	0.03	0.00	0.07	0.13	0.08		
1984	0.24	0.04	0.07	0.03	0.16	0.31	2.67	
1985	0.12	0.07	0.00	0.00	0.10	0.07	0.81	1.06
1986	0.06	0.12	0.05	0.00	0.08	0.11	2.73	0.63
1987	0.19	0.05	0.05	0.05	0.31	0.04	1.62	0.99
1988	0.15	0.04	0.00	0.03	0.83	0.09	1.26	0.82
1989	0.20	0.07	0.20	0.07	0.24	0.05	1.00	1.41
1990	0.19	0.05	0.05	0.05	0.38	0.10	2.39	1.35
1991	0.20	0.04	0.23	0.19	0.44	0.37	1.34	3.26
1992	0.20	0.07	0.22	0.05	0.34	0.10	2.37	1.44
1993	0.14	0.10	0.12	0.02	1.12	1.42	1.55	0.68
1994	0.08	0.03	0.00	0.00	0.55	0.10	3.75	0.50
1995	0.15	0.01	0.01	0.05	0.33	0.07	2.20	1.85
1996	0.22	0.02	0.06	0.08	0.82	0.19	1.97	1.96
1997	0.11	0.19	0.02	0.10	0.98	0.08	4.00	4.44
1998	0.25	0.00	0.04	0.00	0.17	0.17	1.48	4.10
1999	0.08	0.07	0.00	0.16	0.27	0.26	1.70	3.27
2000	0.08	0.08	0.08	0.08	0.30	0.32	0.95	2.44
2001	0.10	0.07	0.02	0.03	0.10	0.32	0.35	2.47
2002	0.08	0.08	0.00	0.08	0.00	0.20	0.03	1.35
2003	0.08	0.05	0.00	0.06	0.29	0.07	0.62	0.35
2004	0.07	0.04	0.04	0.00	0.26	0.41	0.27	0.30
2005	0.12	0.07	0.06	0.00	0.30	0.33	0.21	0.25
2006	0.11	0.06	0.00	0.14	0.24	0.65	0.03	0.20
2007	0.07	0.03	0.05	0.01	0.32	0.15	0.03	0.24
2008	0.07	0.06	0.00	0.02	0.74	0.12	0.19	0.66
2009	0.07	0.03	0.00	0.01	0.17	0.19	0.24	0.32
2010	0.11	0.05	0.15	0.07	0.07	0.12	na	0.26
2011	0.10	0.04	0.07	0.00	0.14	0.16	0.01	0.07
2012	0.19	0.05	0.03	0.02	0.02	0.09	0.03	0.06
2013	0.08	0.09	0.03	0.07	0.00	0.02	0.03	0.07
2014	0.07	0.18	0.00	0.02	0.00	0.00	0.01	0.04
2015	na	0.06	0.05	0.02	na	0.00	na	0.02
2011 - 2015 ave.	0.11	0.08	0.03	0.03	0.04	0.06	0.02	0.05
25th	0.08	0.04	0.00	0.03	0.17	0.07	0.99	0.91
median	0.14	0.06	0.04	0.05	0.31	0.10	1.59	1.41
75th	0.20	0.08	0.07	0.08	0.46	0.28	2.38	2.46

RECRUIT ABUNDANCE (SURVEY)								
Abundance of lobsters 71 - 80 mm CL (sexes combined)								
Survey	NEFSC		MA		RI		CT	
	Fall	spring	fall	spring	Fall	spring	Fall	spring
1981	0.40	0.05	0.07	0.65	1.31	0.89		
1982	0.29	0.24	0.04	0.10	0.62	0.26		
1983	0.28	0.14	0.04	0.09	0.43	0.94		
1984	0.19	0.04	0.01	0.42	1.21	1.03	8.62	
1985	0.34	0.78	0.09	0.34	0.97	0.26	5.03	4.73
1986	0.14	0.09	0.20	0.17	1.30	0.75	8.22	3.45
1987	0.20	0.33	0.17	0.27	2.53	0.79	9.46	3.90
1988	0.26	0.09	0.16	0.24	4.14	0.42	4.82	2.16
1989	0.52	0.04	0.43	0.14	3.26	0.93	6.32	5.51
1990	0.36	0.29	0.31	2.29	1.38	2.17	10.31	9.53
1991	0.24	0.18	0.87	1.18	3.05	4.77	14.23	15.39
1992	0.38	0.06	0.57	0.10	1.97	0.67	12.25	16.55
1993	0.17	0.29	0.52	0.25	8.29	7.81	21.46	10.69
1994	0.12	0.10	0.42	0.95	3.64	1.00	18.87	5.90
1995	0.28	0.00	0.03	1.14	4.48	1.36	15.30	16.31
1996	0.77	0.14	0.32	0.40	6.42	1.60	14.91	16.30
1997	0.56	0.62	0.12	1.45	6.10	2.58	40.43	25.49
1998	0.46	0.37	0.11	1.09	3.38	1.63	18.61	37.56
1999	0.20	0.92	0.19	0.75	2.10	1.64	20.22	40.84
2000	0.40	0.30	0.13	0.54	1.83	1.54	12.71	20.72
2001	0.17	0.14	0.03	0.18	2.21	3.03	11.94	19.12
2002	0.17	0.62	0.00	0.34	0.75	2.73	3.52	11.44
2003	0.12	0.21	0.00	0.07	1.00	0.29	5.56	4.58
2004	0.12	0.11	0.00	0.05	1.48	1.86	4.52	2.92
2005	0.08	0.06	0.00	0.08	2.48	1.02	2.14	2.67
2006	0.12	0.14	0.03	0.08	2.26	3.63	1.38	2.12
2007	0.11	0.12	0.00	0.08	2.76	0.73	1.35	2.86
2008	0.12	0.14	0.01	0.16	2.98	0.64	1.43	3.10
2009	0.05	0.05	0.05	0.16	1.36	1.14	1.72	1.55
2010	0.14	0.05	0.18	0.06	1.21	0.44	na	1.41
2011	0.12	0.03	0.00	0.18	1.02	0.42	0.19	0.42
2012	0.16	0.04	0.21	0.07	0.27	0.61	0.14	0.50
2013	0.10	0.02	0.04	0.11	0.02	0.18	0.06	0.23
2014	0.14	0.52	0.00	0.04	0.14	0.02	0.05	0.15
2015	NA	0.01	0.30	0.07	na	0.05	na	0.15
2011 - 2015 ave.	**0.13**	**0.12**	**0.11**	**0.09**	**0.36**	**0.26**	**0.11**	**0.29**
25th	0.17	0.09	0.08	0.23	1.36	0.78	7.74	5.12
median	0.25	0.20	0.17	0.37	2.37	1.45	12.09	11.44
75th	0.38	0.34	0.35	0.99	3.77	2.27	16.13	17.84

YOUNG-OF-YEAR INDICES				
	YOY	YOY	Larvae	Postlarvae
Survey	MA	RI	CT / ELIS Summer	CT_NY / WLIS Summer
1981				
1982				
1983				14.48
1984			0.43	6.89
1985			0.53	66.75
1986			0.90	4.58
1987			0.78	18.98
1988			0.74	49.27
1989			0.74	5.88
1990		1.31	0.81	19.66
1991		1.49	0.55	9.97
1992		0.63	1.44	14.12
1993		0.51	1.19	26.23
1994		1.23	0.98	96.52
1995	0.17	0.33	1.46	18.20
1996	0.00	0.15	0.31	12.07
1997	0.08	0.99	0.21	13.69
1998	0.20	0.57	0.55	4.85
1999	0.03	0.92	2.83	39.70
2000	0.33	0.34	0.78	14.28
2001	0.10	0.75	0.32	9.46
2002	0.10	0.25	0.64	1.99
2003	0.03	0.79	0.25	2.60
2004	0.03	0.42	0.45	6.10
2005	0.13	0.53	0.49	6.90
2006	0.17	0.44	0.71	1.70
2007	0.10	0.36	0.37	18.10
2008	0.00	0.14	0.37	8.10
2009	0.03	0.08	0.19	7.62
2010	0.00	0.11	0.35	9.91
2011	0.03	0.00	0.26	5.90
2012	0.00	0.09	0.12	2.77
2013	0.13	0.22	0.16	no data
2014	0.07	0.22	0.06	no data
2015	0.00	0.14	na	no data
2011 - 2015 ave.	**0.05**	**0.13**	**0.15**	**4.34**
25th	0.03	0.39	0.50	6.64
median	0.10	0.69	0.74	13.91
75th	0.17	0.97	0.92	21.30

SURVEY LOBSTER ENCOUNTER RATE Proportion of postive tows								
Survey	*NEFSC*		*MA*		*RI*		*CT*	
	Fall	*spring*	*fall*	*spring*	*Fall*	*spring*	*Fall*	*spring*
1981			0.15	0.38	0.54	0.49		
1982	0.34	0.24	0.21	0.28	0.59	0.30		
1983	0.22	0.14	0.16	0.21	0.36	0.45		
1984	0.27	0.09	0.18	0.40	0.45	0.59	0.76	0.72
1985	0.30	0.20	0.22	0.51	0.50	0.31	0.69	0.57
1986	0.25	0.19	0.38	0.39	0.43	0.64	0.61	0.67
1987	0.23	0.13	0.18	0.28	0.47	0.33	0.76	0.63
1988	0.27	0.08	0.21	0.39	0.59	0.49	0.66	0.65
1989	0.37	0.11	0.33	0.50	0.55	0.52	0.63	0.75
1990	0.43	0.14	0.44	0.66	0.54	0.66	0.76	0.73
1991	0.29	0.13	0.39	0.41	0.69	0.77	0.78	0.81
1992	0.31	0.23	0.23	0.51	0.57	0.41	0.69	0.78
1993	0.26	0.09	0.26	0.54	0.73	0.50	0.77	0.74
1994	0.23	0.09	0.20	0.51	0.57	0.56	0.74	0.73
1995	0.33	0.06	0.13	0.44	0.67	0.55	0.68	0.77
1996	0.41	0.08	0.16	0.30	0.76	0.79	0.78	0.68
1997	0.28	0.24	0.21	0.45	0.71	0.75	0.81	0.71
1998	0.30	0.11	0.13	0.54	0.55	0.59	0.71	0.83
1999	0.29	0.18	0.21	0.41	0.59	0.76	0.79	0.78
2000	0.30	0.13	0.15	0.45	0.63	0.68	0.73	0.82
2001	0.24	0.18	0.18	0.28	0.61	0.64	0.58	0.77
2002	0.21	0.19	0.03	0.28	0.45	0.63	0.59	0.73
2003	0.25	0.11	0.03	0.14	0.40	0.53	0.63	0.71
2004	0.20	0.10	0.03	0.28	0.50	0.54	0.66	0.61
2005	0.20	0.08	0.15	0.34	0.45	0.50	0.55	0.63
2006	0.23	0.13	0.03	0.43	0.61	0.81	0.53	0.61
2007	0.19	0.15	0.10	0.34	0.54	0.43	0.53	0.70
2008	0.24	0.11	0.10	0.33	0.52	0.55	0.65	0.63
2009	0.28	0.16	0.05	0.50	0.40	0.57	0.55	0.49
2010	0.30	0.09	0.24	0.23	0.45	0.47	na	0.54
2011	0.32	0.11	0.05	0.18	0.23	0.29	0.28	0.46
2012	0.32	0.12	0.15	0.18	0.16	0.29	0.20	0.44
2013	0.24	0.09	0.08	0.18	0.09	0.20	0.15	0.28
2014	0.24	0.23	0.08	0.13	0.23	0.07	0.10	0.26
2015	na	0.054	0.05	0.10	na	0.12	0.10	0.27
2011 - 2015 ave.	**0.28**	**0.12**	**0.08**	**0.15**	**0.18**	**0.19**	**0.17**	**0.34**
25th	0.25	0.09	0.16	0.37	0.49	0.52	0.65	0.70
median	0.29	0.13	0.20	0.42	0.57	0.59	0.72	0.73
75th	0.31	0.18	0.24	0.51	0.64	0.66	0.76	0.77

Appendix 3. Bottom Water Temperatures

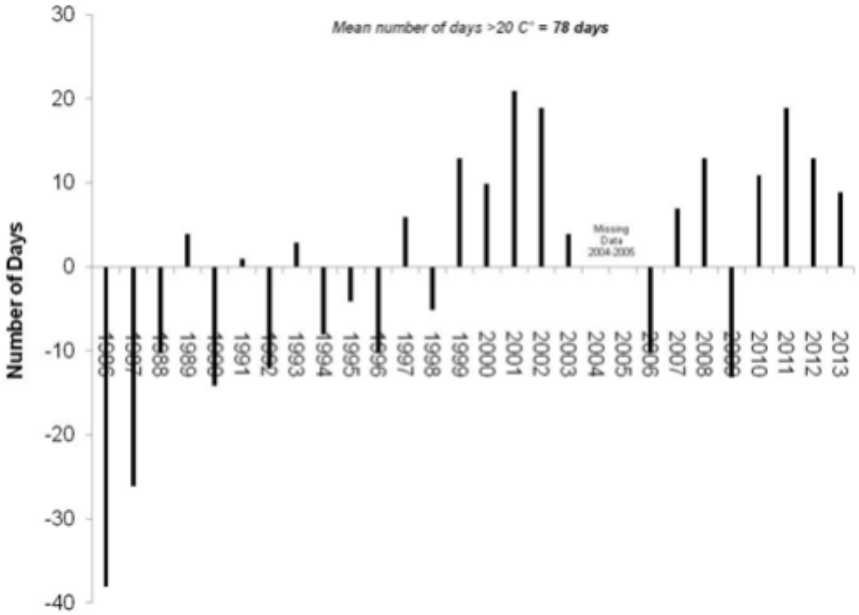

Figure 1: Bottom water (11m) temperature anomalies from the mean number of days >20°C at Cleveland Ledge, Buzzards Bay, MA, 1986-2013. Source: 2015 Benchmark Stock Assessment.

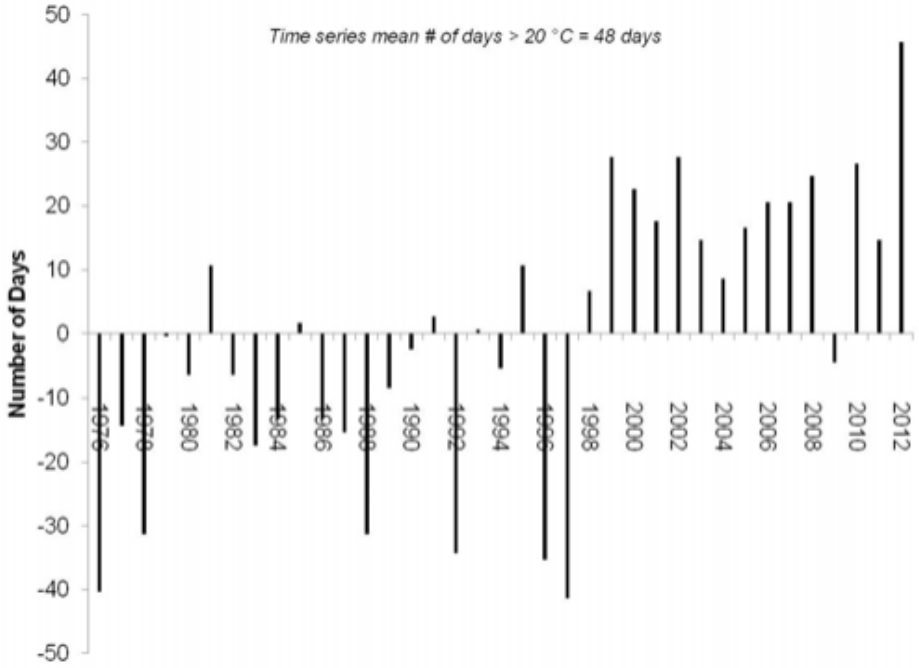

Figure 2: Bottom water (11m) temperature anomalies from the mean number of days >20°C at Dominion Nuclear Power Station, eastern Long Island Sound, CT, 1976-2012.

Appendix 4: Southern New England Stock Projections

The American Lobster Technical Committee (TC) met on December 8th to review projections for the Southern New England (SNE) lobster stock. Below are the series of projections that the TC unanimously recommends for Board consideration. These projections represent two potential scenarios. In the first scenario, recruitment is assumed to be independent of stock biomass and stable at current estimated levels. While this can limit the potential for rebuilding, it is perhaps the more realistic of the two scenarios given that recruitment has been declining for the past couple decades.

In the second scenario, future recruitment is linked to the spawning stock via a Beverton-Holt stock-recruitment relationship. This is perhaps less realistic than the first scenario with regards to stock rebuilding but more realistic for the continued decline of the population because recruitment decreases with further depletion of the spawning stock.

Under the first scenario with fixed recruitment, an 80% to 90% reduction in harvest rate is projected to stabilize the stock at current levels, assuming natural mortality also stabilizes at current levels; even lower harvest rates show some potential for recovery. Under the second scenario with recruitment linked to spawning stock, a 75% reduction in harvest rate would be needed to stabilize the stock under current natural mortality conditions.

The TC ran stock projections to examine population responses under various levels of natural mortality (M) and fishing mortality (F). It is important to note that here F is used to represent the proportion of current catch levels by weight, not a fishery removal rate as is typical. In plots where F was fixed at zero, M varied from 0.15 to 0.5. The effect of varying M on population projections is presented and highlights the sensitivity to the assumed value of M.

The projections are shown in two different units: reference abundance (N) and spawning stock biomass (SSB). Reference abundance is the number of lobsters 78+ mm carapace length on January 1st plus the number that will molt and recruit to the 78+ group during the year. Current reference points are also expressed in N. SSB is the total weight of mature lobsters (both sexes) in the stock. In the projections, SSB shows greater recovery potential than reference abundance because SSB is the product of abundance at-size, the probability of maturity at-size, and weight at-size. As a result, SSB increases more rapidly than N because larger individuals weigh more than smaller lobsters.

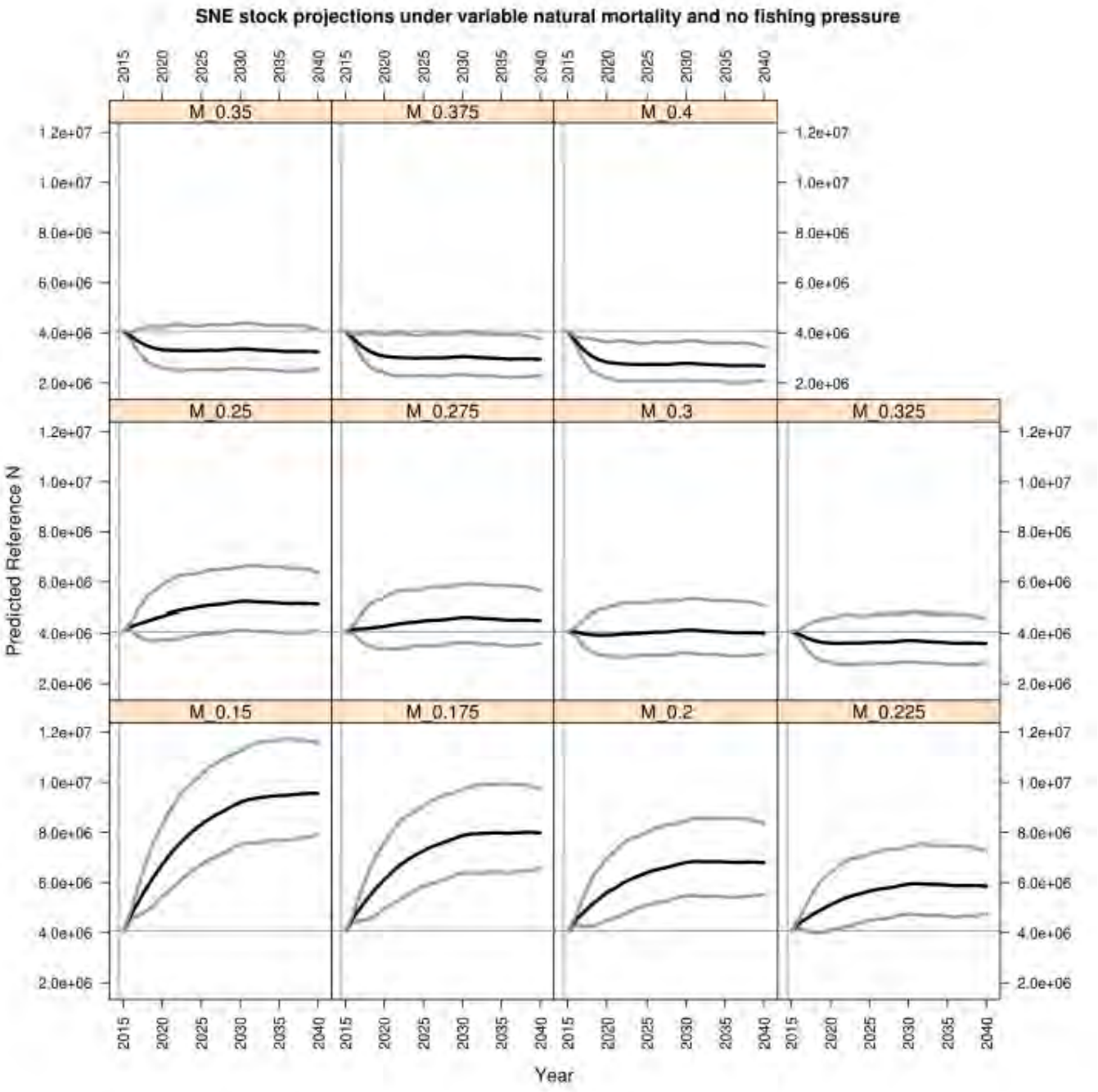

Figure 1: SNE stock projections assuming constant recruitment (similar to levels seen from 2011 to 2014) under various levels of M. F is fixed at zero. The units are reference abundance. Black line is the mean trend +/- 2SD (gray lines).

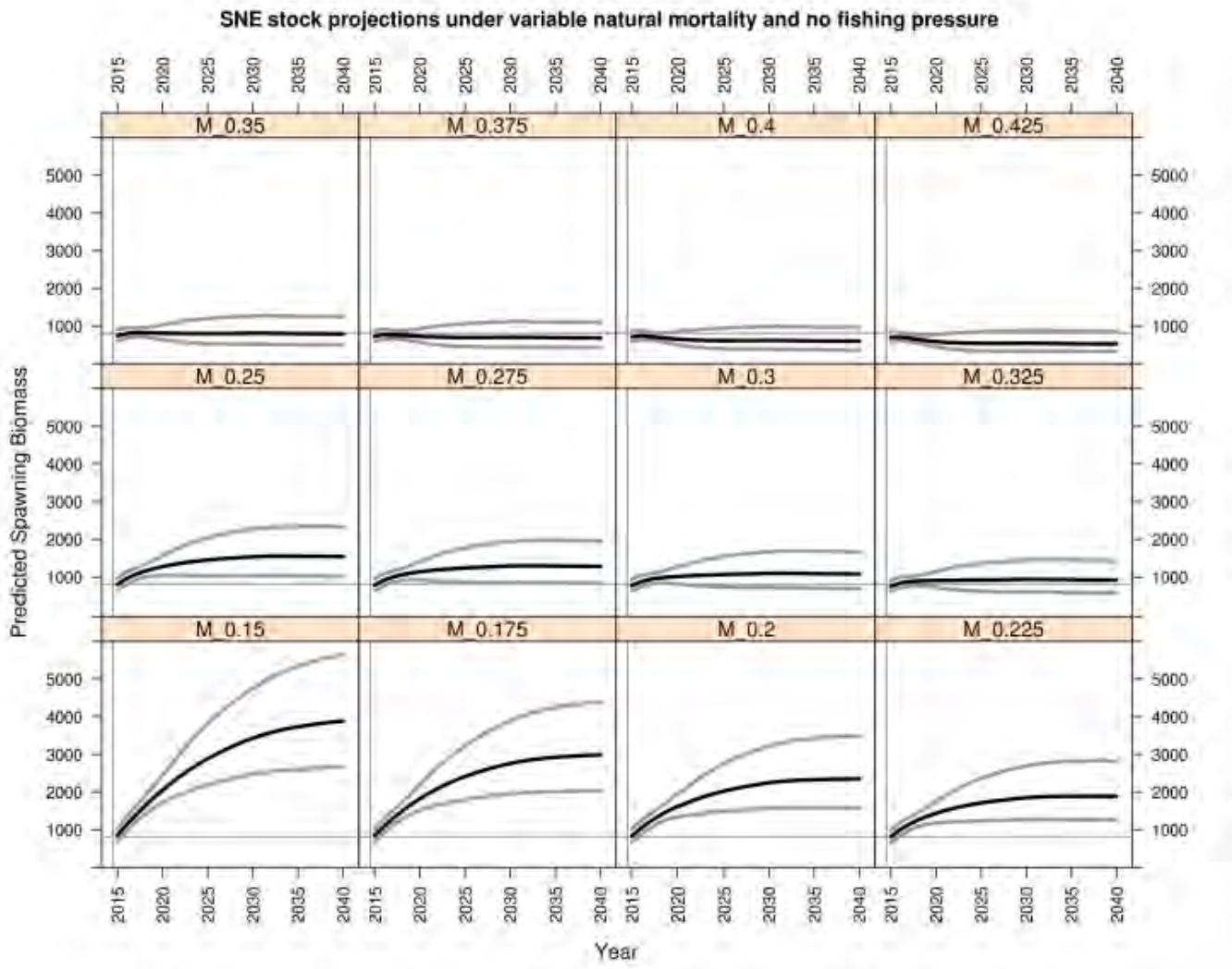

Figure 2: SNE stock projections assuming constant recruitment (similar to levels seen from 2011 to 2014) under various levels of M. F is fixed at zero. The units are SSB. Black line is the mean trend +/- 2SD (gray lines).

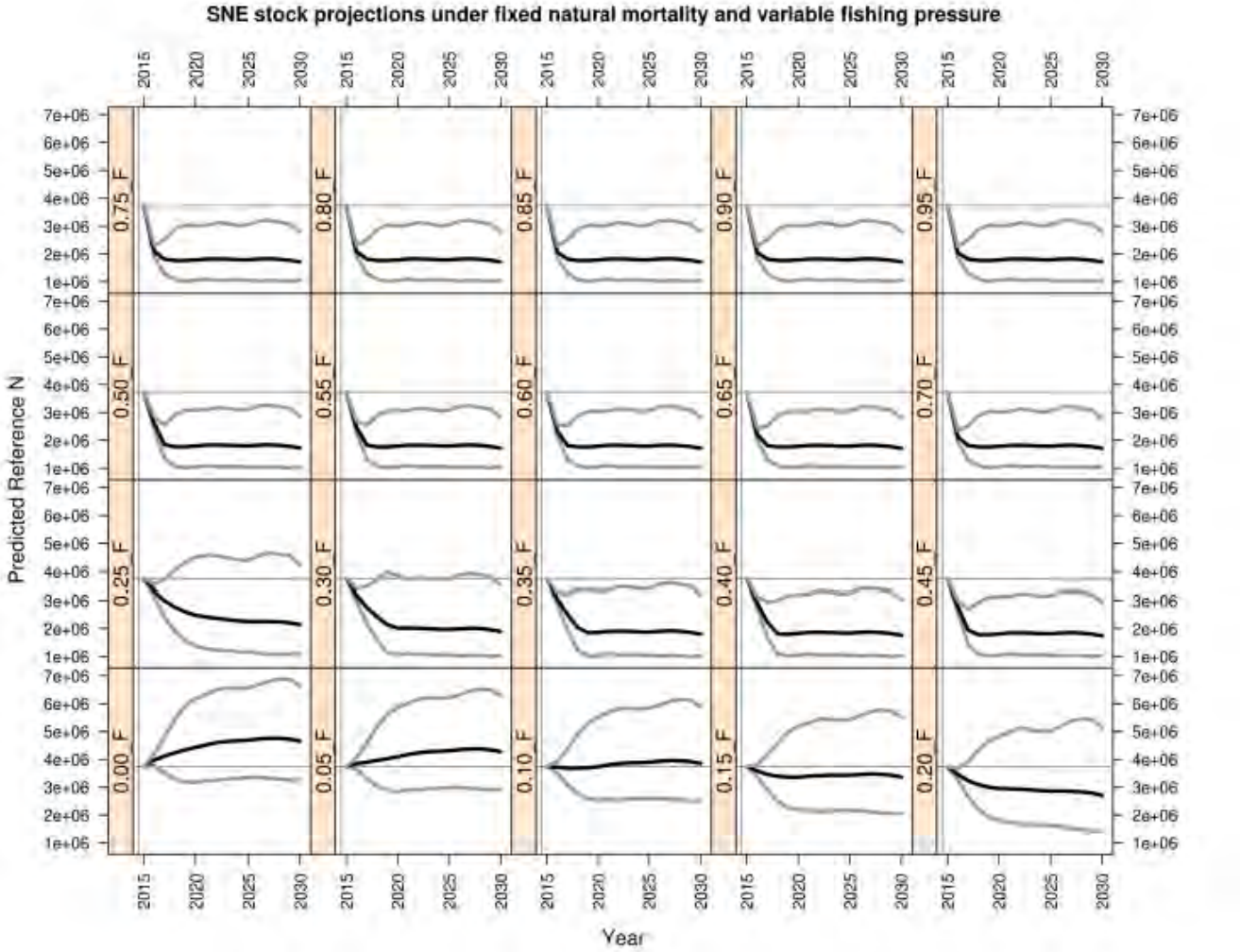

Figure 3: SNE stock projections assuming constant recruitment (similar to levels seen from 2011 to 2014) under various levels of F. M is fixed at 0.285. The units are reference abundance. Black lines is the mean trend 2 +/-2SD (gray lines).

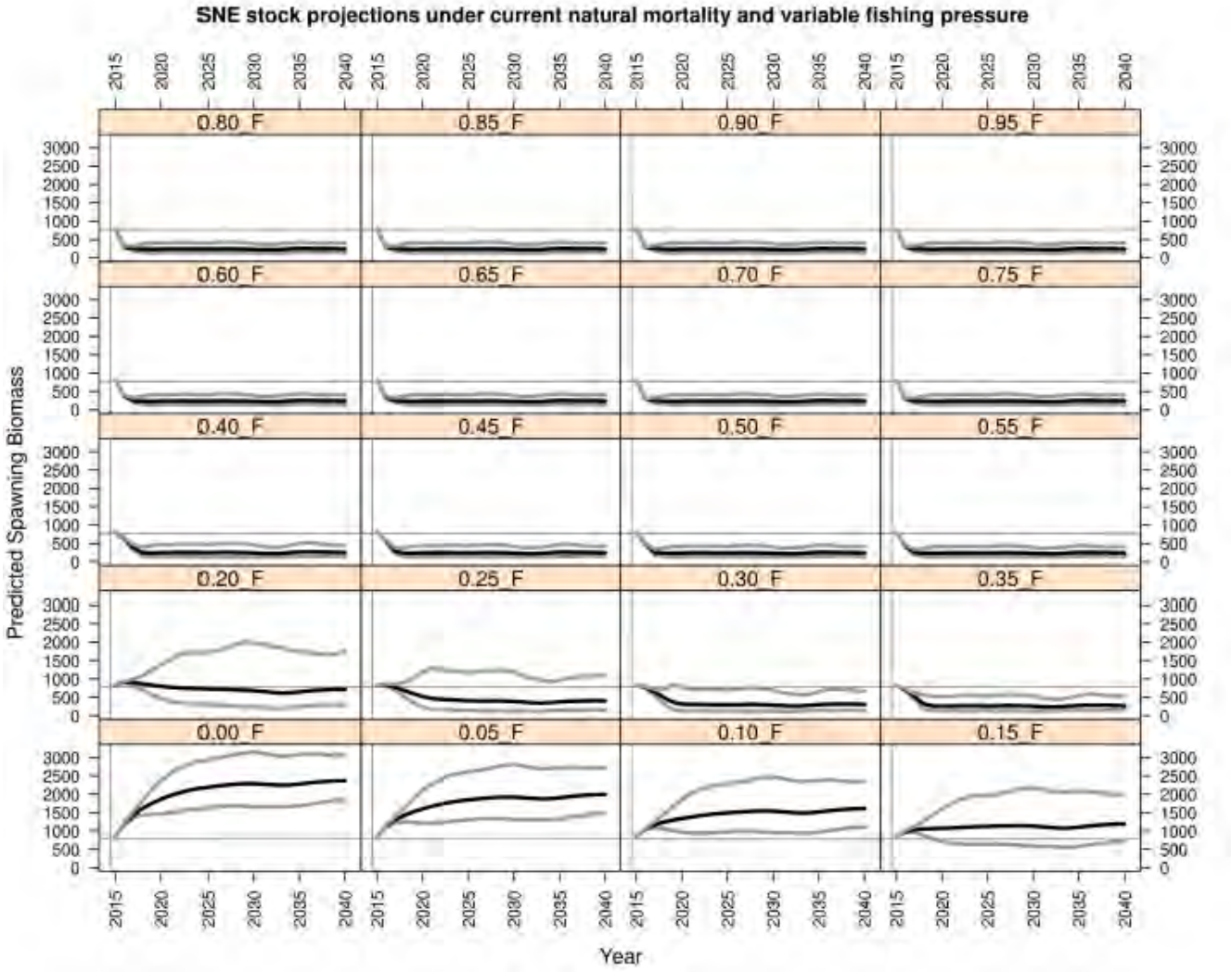

Figure 4: SNE stock projections assuming constant recruitment (similar to levels seen from 2011 to 2014) under various levels of F. M is fixed at 0.285. The units are SSB. Black line is the mean trend +/1 2SD (gray lines).

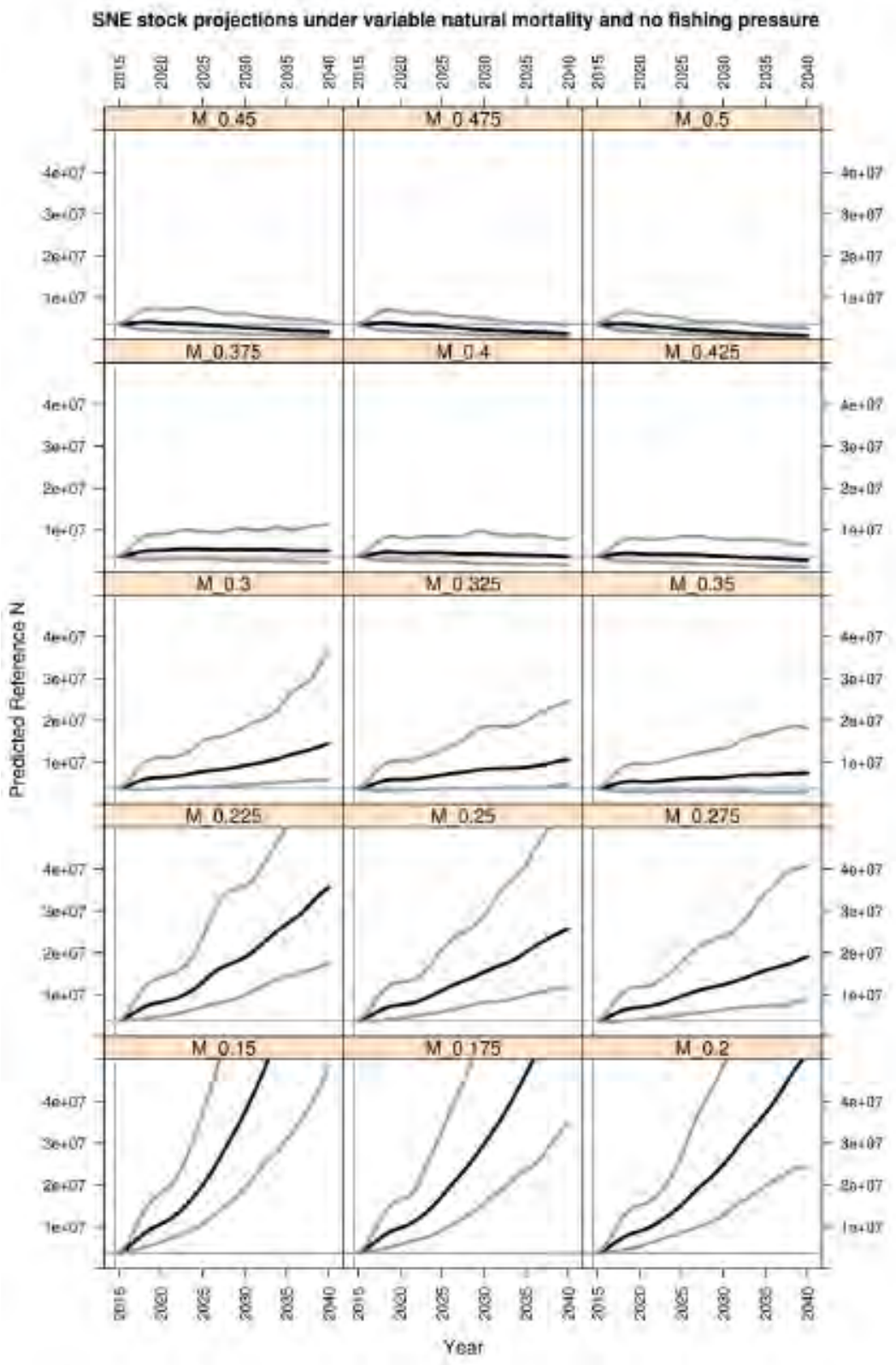

Figure 5. SNE stock projections assuming a Beverton-Holt stock recruit relationship under various levels of M. F is fixed at zero. The units are reference abundance.

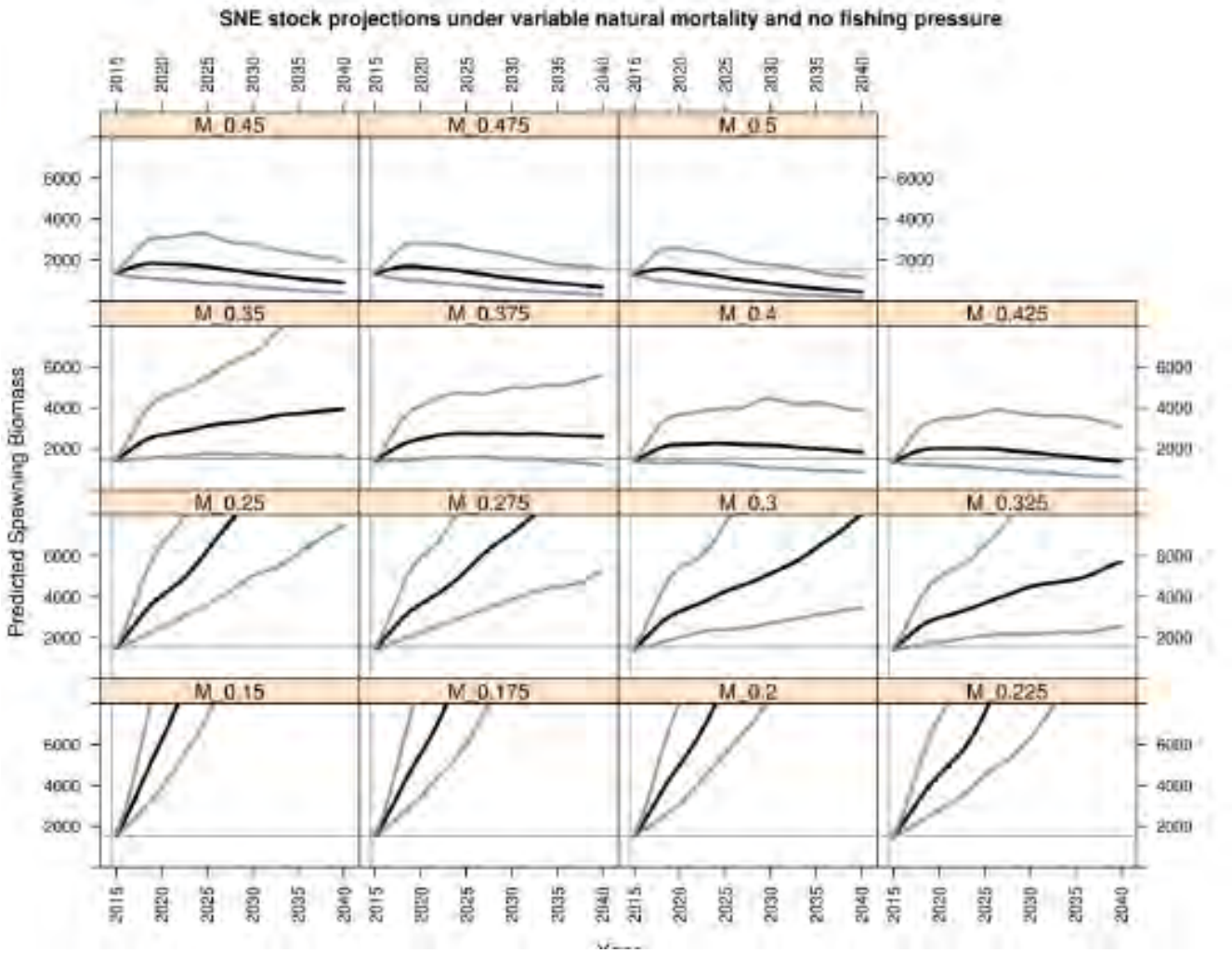

Figure 6: SNE stock projections assuming Beverton-Holt recruitment under various levels of M. F is fixed at zero. The units are SSB.

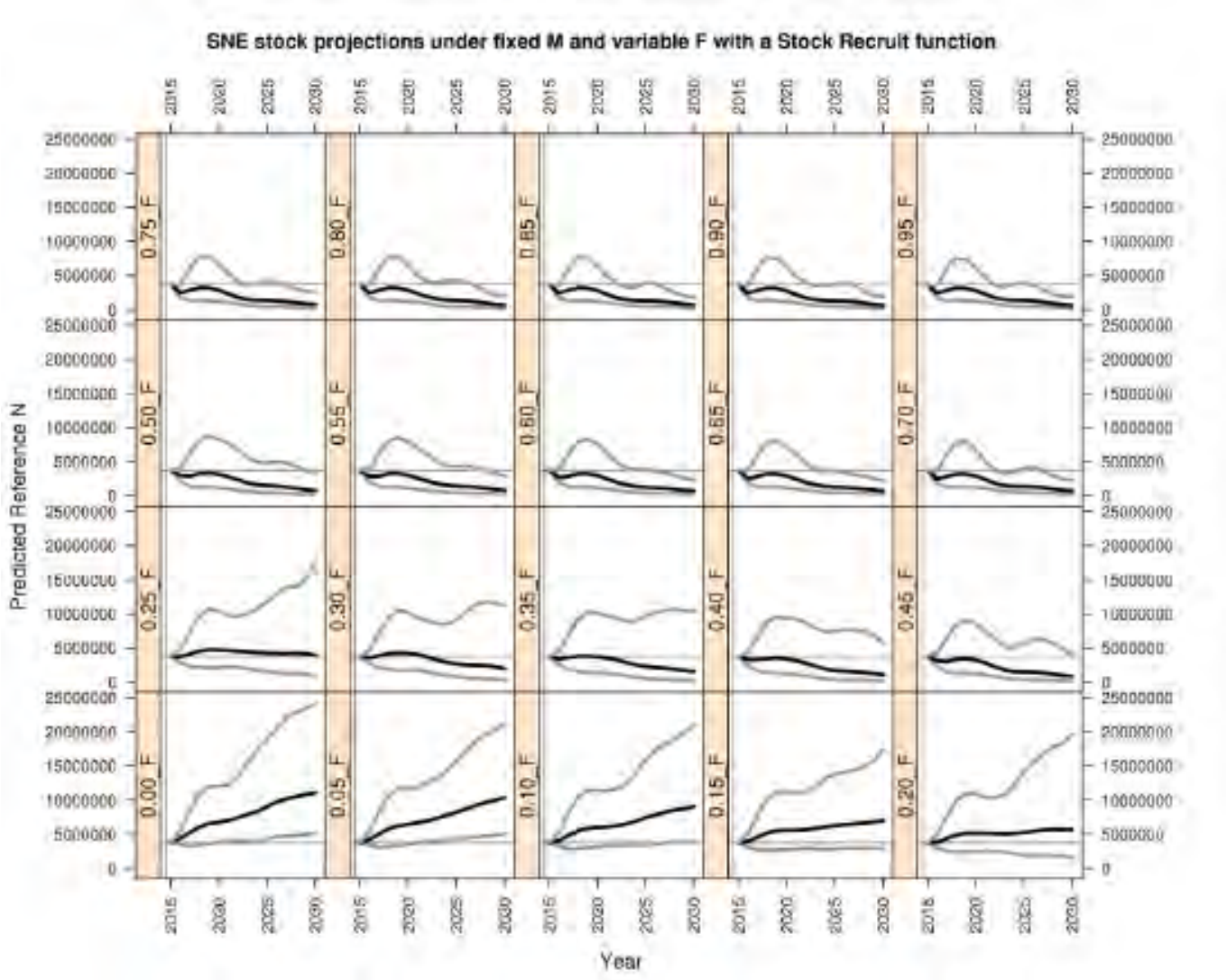

Figure 7: SNE stock projections assuming Beverton-Holt recruitment under various levels of F. M is fixed at 0.285. The units are reference abundance.

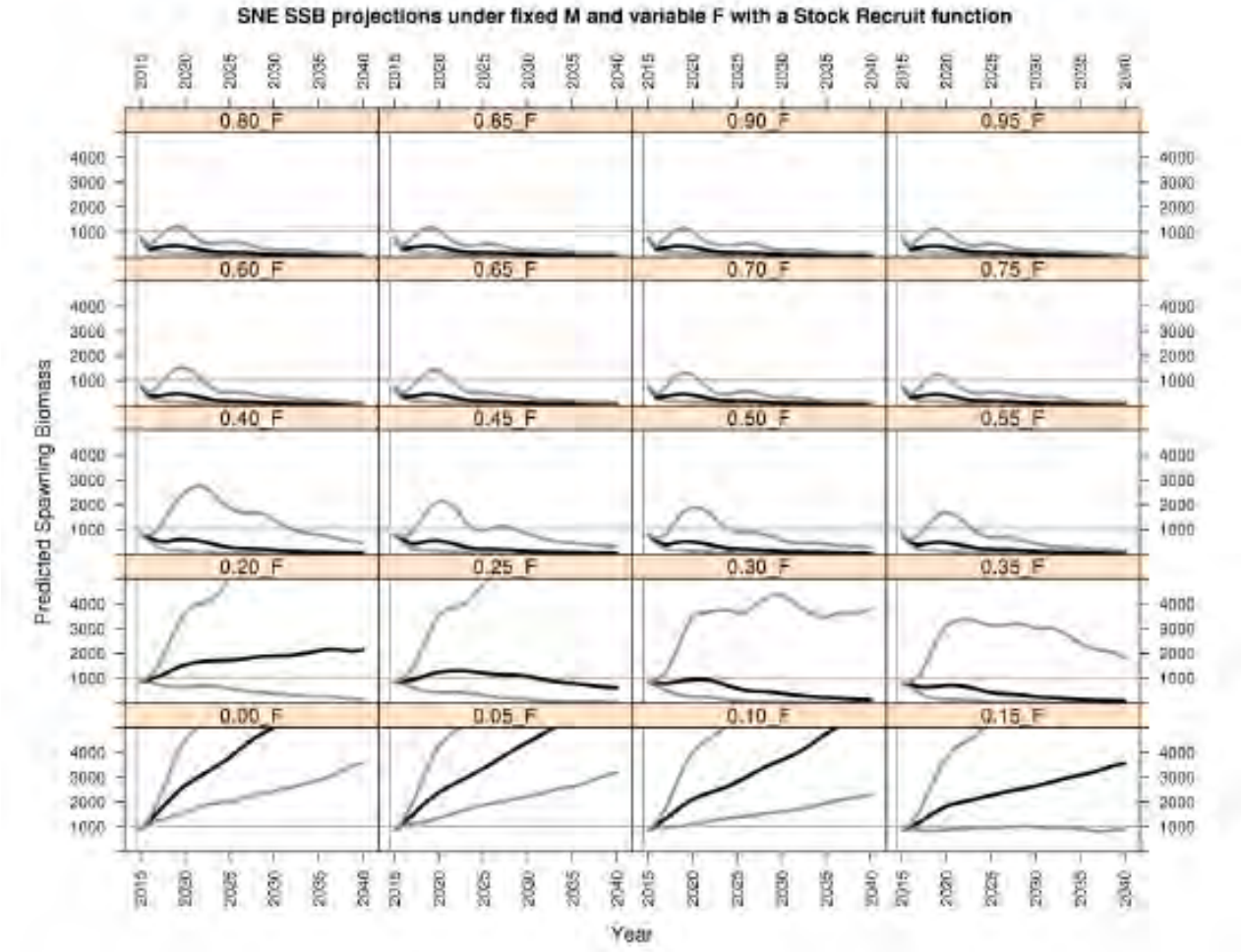

Figure 8: SNE stock projections assuming Beverton-Holt recruitment under various levels of F. M is fixed at 0.285. The units are SSB.

Appendix 5: TC Memo to Board on Gauge Size Changes

MEMORANDUM

TO: American Lobster Management Board

FROM: American Lobster Technical Committee

DATE: July 25, 2016

SUBJECT: Effect of Gauge Changes on Exploitation, SSB, Reference Abundance, and Catch

The following analysis looks at the effect of gauge size changes on egg production, exploitation, spawning stock biomass (SSB), reference abundance, and catch. This work is intended to provide a holistic view of stock and fishery changes that may result from alterations to the minimum and maximum gauge size. Table 1 summarizes scenarios in which a 20% or 60% increase in egg production is achieved, per the motion of the Board at the May 2016 meeting. Tables 2-6 look at all combinations of gauge changes in regards to egg production, exploitation, SSB, reference abundance, and catch.

Table 1. Minimum and maximum size window necessary to achieve a 20% and 60% increase in egg production respectively. Includes % change in exploitation, spawning stock biomass, reference abundance, and catch associated with the size windows presented. *Assumes changes in gauge size from the current 86 mm minimum and 133 mm maximum size inshore, and an 89 mm minimum size and a 171 mm maximum size offshore. English unit conversions are approximate.

	Min	Max	Egg Production	Exploitation	Spawning Stock Biomass	Reference Abundance	Catch
Inshore	88 mm (3 15/32")	105 mm (4 1/8")	20%	-18%	20%	9%	-11%
	91 mm (3 9/16")	115 mm (4 1/2")	18%	-22%	22%	11%	-14%
	92 mm (3 5/8")	165 mm (6 1/2")	20%	-27%	25%	13%	-17%
Offshore	91 mm (3 9/16")	105 mm (4 1/8")	22%	-21%	22%	9%	-13%
	94 mm (3 11/16")	115 mm (4 1/2")	20%	-26%	24%	12%	-17%
	95 mm (3 3/4")	165 mm (6 1/2")	21%	-28%	26%	13%	-19%
Inshore	99 mm (3 7/8")	115 mm (4 1/2")	60%	-56%	71%	32%	-42%
	101 mm (3 29/32")	165 mm (6 1/2")	59%	-59%	76%	35%	-45%
Offshore	102 mm (4")	115 mm (4 1/2")	62%	-60%	71%	31%	-47%
	103 mm (4 1/16")	165 mm (6 1/2")	63%	-63%	75%	34%	-50%

Table 2. Inshore and offshore minimum/maximum gauge change scenarios and corresponding egg production changes from the current gauge sizes. Egg production is expressed as percent increases from the current conditions.

Inshore; Min=86, Max=133

Min Size \ Max size	105	115	125	135	145	155	165
82	2%	-7%	-8%	-8%	-8%	-8%	-8%
83	3%	-6%	-7%	-7%	-7%	-7%	-7%
84	5%	-4%	-5%	-5%	-5%	-5%	-5%
85	8%	-1%	-3%	-3%	-3%	-3%	-3%
86	12%	1%	0%	0%	0%	0%	0%
87	15%	5%	3%	3%	3%	3%	3%
88	20%	8%	6%	6%	6%	6%	6%
89	23%	11%	9%	9%	9%	9%	9%
90	27%	14%	12%	12%	12%	12%	12%
91	33%	18%	16%	16%	16%	16%	16%
92	39%	22%	20%	20%	20%	20%	20%
93	46%	28%	26%	25%	25%	25%	25%
94	51%	31%	29%	28%	28%	28%	28%
95	NA	35%	32%	32%	32%	32%	32%
96	NA	40%	37%	37%	37%	37%	37%
97	NA	47%	43%	43%	43%	43%	43%
98	NA	56%	51%	51%	51%	51%	51%
99	NA	59%	54%	54%	54%	54%	54%
100	NA	63%	58%	57%	57%	57%	57%
101	NA	69%	63%	62%	62%	62%	62%
102	NA	76%	70%	69%	69%	69%	69%
103	NA	87%	79%	78%	78%	78%	78%
104	NA	91%	82%	81%	81%	81%	81%
105	NA	NA	85%	84%	84%	84%	84%
106	NA	NA	90%	89%	89%	89%	89%
107	NA	NA	97%	96%	95%	95%	95%
108	NA	NA	107%	105%	105%	105%	105%
109	NA	NA	110%	108%	107%	107%	107%
110	NA	NA	113%	111%	110%	110%	110%

Offshore; Min=89, Max=171

Min Size \ Max size	105	115	125	135	145	155	165
82	-7%	-14%	-15%	-16%	-16%	-16%	-16%
83	-6%	-14%	-15%	-15%	-15%	-15%	-15%
84	-3%	-12%	-13%	-13%	-13%	-13%	-13%
85	0%	-9%	-10%	-11%	-11%	-11%	-11%
86	3%	-7%	-8%	-8%	-8%	-8%	-8%
87	6%	-4%	-5%	-5%	-5%	-5%	-5%
88	10%	-1%	-2%	-2%	-2%	-2%	-2%
89	13%	2%	0%	0%	0%	0%	0%
90	17%	5%	3%	3%	3%	3%	3%
91	22%	8%	6%	6%	6%	6%	6%
92	27%	12%	11%	10%	10%	10%	10%
93	34%	18%	15%	15%	15%	15%	15%
94	39%	20%	18%	18%	18%	18%	18%
95	NA	24%	22%	21%	21%	21%	21%
96	NA	29%	26%	26%	25%	25%	25%
97	NA	35%	32%	31%	31%	31%	31%
98	NA	43%	39%	39%	39%	39%	39%
99	NA	46%	42%	41%	41%	41%	41%
100	NA	50%	45%	45%	45%	45%	45%
101	NA	55%	50%	49%	49%	49%	49%
102	NA	62%	56%	55%	55%	55%	55%
103	NA	72%	64%	64%	63%	63%	63%
104	NA	75%	67%	66%	66%	66%	66%
105	NA	NA	70%	69%	69%	69%	69%
106	NA	NA	75%	74%	73%	73%	73%
107	NA	NA	81%	80%	79%	79%	79%
108	NA	NA	90%	89%	88%	88%	88%
109	NA	NA	92%	91%	90%	90%	90%
110	NA	NA	95%	93%	93%	93%	93%

Table 3. Inshore and offshore minimum/maximum gauge change scenarios and corresponding exploitation changes from the current gauge sizes. Exploitation is expressed as percent increases from the current conditions.

Inshore; Min=86, Max=133

Min Size \ Max size	105	115	125	135	145	155	165
82	7%	14%	14%	14%	14%	14%	14%
83	5%	12%	13%	13%	13%	13%	13%
84	1%	8%	9%	9%	9%	9%	9%
85	-4%	4%	4%	4%	5%	5%	5%
86	-8%	-1%	0%	0%	0%	0%	0%
87	-13%	-6%	-5%	-5%	-5%	-5%	-5%
88	-18%	-11%	-10%	-10%	-10%	-10%	-10%
89	-22%	-14%	-13%	-13%	-13%	-13%	-13%
90	-26%	-18%	-17%	-17%	-17%	-17%	-17%
91	-31%	-22%	-22%	-21%	-21%	-21%	-21%
92	-37%	-28%	-27%	-27%	-27%	-27%	-27%
93	-43%	-33%	-32%	-32%	-32%	-32%	-32%
94	-46%	-36%	-35%	-35%	-35%	-35%	-35%
95	NA	-39%	-38%	-38%	-38%	-38%	-38%
96	NA	-43%	-42%	-42%	-42%	-42%	-42%
97	NA	-48%	-46%	-46%	-46%	-46%	-46%
98	NA	-54%	-53%	-53%	-52%	-52%	-52%
99	NA	-56%	-54%	-54%	-54%	-54%	-54%
100	NA	-58%	-56%	-56%	-56%	-56%	-56%
101	NA	-61%	-59%	-59%	-59%	-59%	-59%
102	NA	-65%	-63%	-63%	-63%	-63%	-63%
103	NA	-71%	-68%	-68%	-68%	-68%	-68%
104	NA	-72%	-69%	-69%	-69%	-69%	-69%
105	NA	NA	-71%	-70%	-70%	-70%	-70%
106	NA	NA	-73%	-72%	-72%	-72%	-72%
107	NA	NA	-75%	-75%	-75%	-75%	-75%
108	NA	NA	-80%	-79%	-79%	-79%	-79%
109	NA	NA	-81%	-80%	-80%	-80%	-80%
110	NA	NA	-81%	-81%	-81%	-81%	-81%

Offshore; Min=89, Max=171

Min Size \ Max size	105	115	125	135	145	155	165
82	23%	31%	32%	32%	32%	32%	32%
83	21%	29%	30%	30%	30%	30%	30%
84	16%	24%	25%	25%	25%	25%	25%
85	11%	20%	20%	21%	21%	21%	21%
86	6%	14%	15%	15%	15%	15%	15%
87	0%	9%	10%	10%	10%	10%	10%
88	-6%	3%	4%	4%	4%	4%	4%
89	-10%	-1%	0%	0%	0%	0%	0%
90	-15%	-5%	-4%	-4%	-4%	-4%	-4%
91	-21%	-11%	-10%	-9%	-9%	-9%	-9%
92	-27%	-16%	-15%	-15%	-15%	-15%	-15%
93	-34%	-23%	-22%	-22%	-22%	-22%	-22%
94	-38%	-26%	-25%	-25%	-25%	-25%	-25%
95	NA	-30%	-28%	-28%	-28%	-28%	-28%
96	NA	-34%	-33%	-33%	-33%	-33%	-33%
97	NA	-40%	-38%	-38%	-38%	-38%	-38%
98	NA	-47%	-45%	-45%	-45%	-45%	-45%
99	NA	-49%	-47%	-47%	-47%	-47%	-47%
100	NA	-52%	-50%	-50%	-49%	-49%	-49%
101	NA	-55%	-53%	-53%	-53%	-53%	-53%
102	NA	-60%	-57%	-57%	-57%	-57%	-57%
103	NA	-66%	-63%	-63%	-63%	-63%	-63%
104	NA	-68%	-64%	-64%	-64%	-64%	-64%
105	NA	NA	-66%	-66%	-66%	-66%	-66%
106	NA	NA	-68%	-68%	-68%	-68%	-68%
107	NA	NA	-72%	-71%	-71%	-71%	-71%
108	NA	NA	-77%	-76%	-76%	-76%	-76%
109	NA	NA	-78%	-77%	-77%	-77%	-77%
110	NA	NA	-79%	-78%	-78%	-78%	-78%

Table 4. Inshore and offshore minimum/maximum gauge change scenarios and corresponding spawning stock biomass (SSB) changes from the current gauge sizes. SSB is expressed as percent increases from the current conditions.

Inshore; Min=86, Max=133

Min Size \ Max size	105	115	125	135	145	155	165
82	-1%	-9%	-10%	-10%	-10%	-10%	-10%
83	0%	-8%	-9%	-9%	-9%	-9%	-9%
84	4%	-5%	-6%	-6%	-6%	-6%	-6%
85	7%	-2%	-3%	-3%	-3%	-3%	-3%
86	11%	1%	0%	0%	0%	0%	0%
87	16%	5%	4%	4%	4%	4%	4%
88	20%	9%	8%	8%	8%	8%	8%
89	25%	13%	11%	11%	11%	11%	11%
90	30%	17%	15%	15%	15%	15%	15%
91	36%	22%	20%	20%	20%	20%	20%
92	43%	27%	26%	25%	25%	25%	25%
93	51%	34%	32%	32%	32%	32%	32%
94	57%	38%	36%	36%	36%	35%	35%
95	NA	43%	40%	40%	40%	40%	40%
96	NA	49%	46%	46%	46%	46%	46%
97	NA	57%	54%	53%	53%	53%	53%
98	NA	67%	63%	63%	63%	63%	63%
99	NA	71%	67%	66%	66%	66%	66%
100	NA	76%	71%	71%	71%	71%	71%
101	NA	82%	77%	76%	76%	76%	76%
102	NA	90%	84%	84%	84%	84%	84%
103	NA	102%	95%	94%	94%	94%	94%
104	NA	106%	98%	97%	97%	97%	97%
105	NA	NA	102%	101%	101%	101%	101%
106	NA	NA	107%	106%	106%	106%	106%
107	NA	NA	115%	113%	113%	113%	113%
108	NA	NA	125%	124%	124%	124%	124%
109	NA	NA	128%	126%	126%	126%	126%
110	NA	NA	131%	129%	129%	129%	129%

Offshore; Min=89, Max=171

Min Size \ Max size	105	115	125	135	145	155	165
82	-11%	-18%	-19%	-19%	-19%	-19%	-19%
83	-10%	-17%	-18%	-18%	-18%	-18%	-18%
84	-7%	-15%	-16%	-16%	-16%	-16%	-16%
85	-4%	-12%	-13%	-13%	-13%	-13%	-13%
86	0%	-9%	-10%	-10%	-10%	-10%	-10%
87	4%	-6%	-7%	-7%	-7%	-7%	-7%
88	8%	-2%	-3%	-3%	-3%	-3%	-3%
89	12%	1%	0%	0%	0%	0%	0%
90	17%	5%	4%	4%	4%	4%	4%
91	22%	9%	8%	8%	8%	8%	8%
92	29%	15%	13%	13%	13%	13%	13%
93	36%	21%	19%	19%	19%	19%	19%
94	41%	24%	22%	22%	22%	22%	22%
95	NA	28%	26%	26%	26%	26%	26%
96	NA	34%	31%	31%	31%	31%	31%
97	NA	41%	38%	38%	38%	38%	38%
98	NA	50%	47%	46%	46%	46%	46%
99	NA	54%	50%	50%	49%	49%	49%
100	NA	58%	54%	53%	53%	53%	53%
101	NA	64%	59%	59%	59%	59%	59%
102	NA	71%	66%	65%	65%	65%	65%
103	NA	82%	75%	75%	75%	75%	75%
104	NA	85%	78%	77%	77%	77%	77%
105	NA	NA	82%	81%	81%	81%	81%
106	NA	NA	87%	86%	85%	85%	85%
107	NA	NA	93%	92%	92%	92%	92%
108	NA	NA	103%	101%	101%	101%	101%
109	NA	NA	105%	103%	103%	103%	103%
110	NA	NA	108%	106%	106%	106%	106%

Table 5. Inshore and offshore minimum/maximum gauge change scenarios and corresponding reference abundance changes from the current gauge sizes. Reference abundance is expressed as percent increases from the current conditions.

Inshore; Min=86, Max=133

Min Size \ Max size	105	115	125	135	145	155	165
82	-3%	-6%	-6%	-6%	-6%	-6%	-6%
83	-2%	-5%	-5%	-5%	-5%	-5%	-5%
84	0%	-3%	-4%	-4%	-4%	-4%	-4%
85	2%	-2%	-2%	-2%	-2%	-2%	-2%
86	4%	0%	0%	0%	0%	0%	0%
87	6%	3%	2%	2%	2%	2%	2%
88	9%	5%	5%	5%	5%	5%	5%
89	11%	7%	6%	6%	6%	6%	6%
90	13%	9%	8%	8%	8%	8%	8%
91	16%	11%	10%	10%	10%	10%	10%
92	19%	14%	13%	13%	13%	13%	13%
93	23%	17%	16%	16%	16%	16%	16%
94	25%	19%	18%	18%	18%	18%	18%
95	NA	21%	20%	20%	20%	20%	20%
96	NA	23%	22%	22%	22%	22%	22%
97	NA	26%	25%	25%	25%	25%	25%
98	NA	31%	30%	30%	30%	30%	30%
99	NA	32%	31%	31%	31%	31%	31%
100	NA	34%	33%	33%	33%	33%	33%
101	NA	36%	35%	35%	35%	35%	35%
102	NA	40%	38%	38%	38%	38%	38%
103	NA	45%	42%	42%	42%	42%	42%
104	NA	46%	43%	43%	43%	43%	43%
105	NA	NA	45%	44%	44%	44%	44%
106	NA	NA	46%	46%	46%	46%	46%
107	NA	NA	49%	49%	49%	49%	49%
108	NA	NA	53%	53%	53%	53%	53%
109	NA	NA	54%	54%	54%	54%	54%
110	NA	NA	55%	55%	55%	55%	55%

Offshore; Min=89, Max=171

Min Size \ Max size	105	115	125	135	145	155	165
82	-8%	-11%	-11%	-11%	-11%	-11%	-11%
83	-8%	-10%	-11%	-11%	-11%	-11%	-11%
84	-6%	-9%	-9%	-9%	-9%	-9%	-9%
85	-4%	-7%	-8%	-8%	-8%	-8%	-8%
86	-2%	-5%	-6%	-6%	-6%	-6%	-6%
87	0%	-3%	-4%	-4%	-4%	-4%	-4%
88	2%	-1%	-1%	-2%	-2%	-2%	-2%
89	4%	0%	0%	0%	0%	0%	0%
90	6%	2%	2%	2%	2%	2%	2%
91	9%	4%	4%	4%	4%	4%	4%
92	12%	7%	7%	7%	6%	6%	6%
93	16%	10%	10%	10%	10%	10%	10%
94	18%	12%	11%	11%	11%	11%	11%
95	NA	14%	13%	13%	13%	13%	13%
96	NA	16%	15%	15%	15%	15%	15%
97	NA	19%	18%	18%	18%	18%	18%
98	NA	23%	22%	22%	22%	22%	22%
99	NA	25%	23%	23%	23%	23%	23%
100	NA	26%	25%	25%	25%	25%	25%
101	NA	28%	27%	27%	27%	27%	27%
102	NA	31%	30%	30%	30%	30%	30%
103	NA	36%	34%	34%	34%	34%	34%
104	NA	37%	35%	35%	35%	35%	35%
105	NA	NA	36%	36%	36%	36%	36%
106	NA	NA	38%	38%	38%	38%	38%
107	NA	NA	40%	40%	40%	40%	40%
108	NA	NA	44%	44%	44%	44%	44%
109	NA	NA	45%	45%	45%	45%	45%
110	NA	NA	46%	46%	46%	46%	46%

Table 6. Inshore and offshore minimum/maximum gauge change scenarios and corresponding catch changes from the current gauge sizes. Catch is expressed as percent increases from the current conditions.

Inshore; Min=86, Max=133

Min Size \ Max size	105	115	125	135	145	155	165
82	4%	7%	8%	8%	8%	8%	8%
83	3%	6%	7%	7%	7%	7%	7%
84	0%	4%	5%	5%	5%	5%	5%
85	-2%	2%	2%	2%	2%	2%	2%
86	-5%	0%	0%	0%	0%	0%	0%
87	-8%	-3%	-3%	-3%	-3%	-3%	-3%
88	-11%	-6%	-6%	-6%	-6%	-6%	-6%
89	-14%	-9%	-8%	-8%	-8%	-8%	-8%
90	-17%	-11%	-10%	-10%	-10%	-10%	-10%
91	-20%	-14%	-13%	-13%	-13%	-13%	-13%
92	-25%	-18%	-17%	-17%	-17%	-17%	-17%
93	-30%	-22%	-21%	-21%	-21%	-21%	-21%
94	-33%	-24%	-23%	-23%	-23%	-23%	-23%
95	NA	-27%	-26%	-26%	-26%	-26%	-26%
96	NA	-30%	-29%	-29%	-29%	-29%	-29%
97	NA	-34%	-33%	-33%	-33%	-33%	-33%
98	NA	-40%	-39%	-38%	-38%	-38%	-38%
99	NA	-42%	-40%	-40%	-40%	-40%	-40%
100	NA	-44%	-42%	-42%	-42%	-42%	-42%
101	NA	-47%	-45%	-45%	-45%	-45%	-45%
102	NA	-51%	-49%	-49%	-49%	-49%	-49%
103	NA	-58%	-55%	-54%	-54%	-54%	-54%
104	NA	-59%	-56%	-56%	-56%	-56%	-56%
105	NA	NA	-58%	-57%	-57%	-57%	-57%
106	NA	NA	-60%	-60%	-60%	-59%	-59%
107	NA	NA	-63%	-63%	-63%	-63%	-63%
108	NA	NA	-69%	-68%	-68%	-68%	-68%
109	NA	NA	-70%	-69%	-69%	-69%	-69%
110	NA	NA	-71%	-71%	-71%	-71%	-71%

Offshore; Min=89, Max=171

Min Size \ Max size	105	115	125	135	145	155	165
82	13%	17%	17%	17%	17%	17%	17%
83	12%	16%	16%	16%	16%	16%	16%
84	9%	13%	14%	14%	14%	14%	14%
85	6%	11%	11%	11%	11%	11%	11%
86	3%	8%	9%	9%	9%	9%	9%
87	0%	5%	6%	6%	6%	6%	6%
88	-4%	2%	2%	2%	2%	2%	2%
89	-6%	-1%	0%	0%	0%	0%	0%
90	-10%	-3%	-3%	-3%	-3%	-3%	-3%
91	-13%	-7%	-6%	-6%	-6%	-6%	-6%
92	-18%	-11%	-10%	-10%	-10%	-10%	-10%
93	-24%	-15%	-14%	-14%	-14%	-14%	-14%
94	-27%	-17%	-17%	-16%	-16%	-16%	-16%
95	NA	-20%	-19%	-19%	-19%	-19%	-19%
96	NA	-24%	-23%	-22%	-22%	-22%	-22%
97	NA	-28%	-27%	-27%	-27%	-27%	-27%
98	NA	-35%	-33%	-33%	-33%	-33%	-33%
99	NA	-37%	-35%	-35%	-35%	-35%	-35%
100	NA	-39%	-37%	-37%	-37%	-37%	-37%
101	NA	-42%	-40%	-40%	-40%	-40%	-40%
102	NA	-47%	-44%	-44%	-44%	-44%	-44%
103	NA	-54%	-51%	-50%	-50%	-50%	-50%
104	NA	-56%	-52%	-52%	-52%	-52%	-52%
105	NA	NA	-54%	-54%	-53%	-53%	-53%
106	NA	NA	-56%	-56%	-56%	-56%	-56%
107	NA	NA	-60%	-60%	-60%	-60%	-60%
108	NA	NA	-66%	-66%	-66%	-66%	-66%
109	NA	NA	-67%	-67%	-67%	-67%	-67%
110	NA	NA	-69%	-68%	-68%	-68%	-68%

Atlantic States Marine Fisheries Commission

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MEMORANDUM

TO: American Lobster Management Board

FROM: Megan Ware, FMP Coordinator

DATE: April 18, 2017

SUBJECT: Public Comment on Draft Addendum XXV

The following pages represent a summary of all comments received by ASMFC on American Lobster Draft Addendum XXV as of 5:00 PM (EST) on April 7, 2017 (closing deadline).

A total of 145 written comments were received on Draft Addendum XXV. Of those comments, 10 were from organizations, 86 were from individuals, and 49 were from a form letter. 7 public hearings were held in 6 jurisdictions. Approximately 235 individuals attended the hearings.

The following tables (pages 2-7) are provided to give the Board an overview of the support for specific options and issues contained in Draft Addendum XXV. This is then followed by summaries of the public hearings, a form letter with total participant count, letters sent by organizations, letters sent by individuals, and emails received from both organizations and individuals.

Public Comment Summary Tables

Issue 1: Target Increase in Egg Production						
	0% Increase	**20% Increase**	**0% Preferred, No More Than 20%**	**30% Increase**	**40% Increase**	**60% Increase**
Individual	53	12	5			
Organization	3	1	3			
Form Letter	49					
Hearings						
MA	17		32			
RI			37			
CT	42					
NY	30					
NJ	5	1				
DE/MD	9					
Total	208	14	77			

Issue 1 Comments:

- The majority of comments recommended the Board maintain current regulations until the biological impacts of the 2014 regulatory changes and the on-going trap reductions are realized. Several pointed to increased landings in 2016 as a sign that the stock is improving.
- Many stated that predation (from black sea bass, ocean pout, dogfish and seals), shell disease, and water quality issues are the source of the SNE stock decline and that the Board should address these issues before addressing fishing mortality.
- Others highlighted the potential economic impacts of this Draft Addendum, including impacts to the commercial fishery, recreational fishery, dealers, restaurants, and dive shops.
- Several fishermen stated that there has already been significant reductions in effort in the SNE fishery and further reductions are not needed.
- In MA and RI, many commented that their preferred management alternative is status quo; however, if the Board feels it needs to take action, the increase in egg production be no more than 20%. They recommended this 20% increase be implemented over two years.

Issue 2: Management Tools			
	All Tools	**Gauge Size Change & Season Closures**	**Limited Trap Reduction & Season Closure**
Individual	13	9	1
Organization	5	1	1
Form Letter			
Hearings			
MA	36		
RI	26		
CT			
NY			
NJ	1		
DE/MD			
Total	81	10	2

Issue 2 Comments:

- Majority of comments did not support a regulatory change in the lobster fishery and did not support any of the management alternatives in Issue 2.
- Of those that did comment on this issue, the majority supported Option A, under which gauge size changes, season closures, and trap reductions can be used independently or in conjunction with one another to achieve the target increase in egg production.
- Many comments were against a minimum gauge size increase, stating it disadvantages the inshore fleet since larger lobsters move offshore and prevents SNE fishermen from participating in markets which prefer smaller lobsters.
- Participants in the NY, DE, and MD did not support the use of trap reductions since there are few active traps in their waters.
- Several comments recommended a v-notch program be used as a management tool to achieve the egg production increase.
- Fishermen from MA and RI stated that trap reductions are increasing egg production and disagreed with the caveats presented in the Draft Addendum.
- At the MA hearing, 36 participants supported the statement that only current trap reductions be used to achieve the target increase in egg production in LCMA 2.
- At the RI hearing, 32 participants supported the statement that only current trap reductions be used to achieve the target increase in egg production in LCMA 2. 28 participants supported the statement that only current trap reductions be used to achieve the target increase in egg production in LCMA 3.
- There were several comments which suggested the Board implement the same management program as Maine, given the increase in landings in LCMA 1.

Issue 3: Recreational Fishery			
	All Mgmt. Changes	**Season Closures & Gauge Size Changes**	**Gauge Size Changes**
Individual	10	1	10
Organization	4	1	1
Form Letter			
Hearings			
MA	35		
RI	36		
CT	2		
NY			
NJ			1
DE/MD			
Total	87	2	12

Issue 3 Comments:

- Those in favor of Option A (recreational fishery abide by all management changes) frequently stated that all participants in the fishery should be subject to the regulatory changes in Draft Addendum XXV.
- In general, the recreational fishery supported Option C (recreational fishery only abides by gauge size changes), commenting that a summer season closure would devastate the dive fishery and those businesses it supports.
- There were also comments that did not support any changes to the recreational fishery measures.

Issue 4: Season Closures					
	Traps Out of Water	**No Possession**	**No Possession, Bycatch Limit**	**Most Restrictive Applies**	**Most Restrictive Does not Apply**
Individual	4	11		3	7
Organization		3	1		5
Form Letter					
Hearings					
MA					
RI					1
CT		2	2		
NY					
NJ		2	2		
DE/MD					
Total	4	18	5	3	13

Issue 4 Comments:

- The vast majority did not support a season closure. Many commented that season closures disrupt the lobster market and decrease the efficiency of the fleet. Others commented that since the Jonah crab and lobster fisheries are jointly managed, season closures hurt the Jonah crab fishery.
- At the MA hearing, 45 participants did not support the use of season closures.
- Of those that did comment on this issue, the majority stated that traps should stay in the water during a season closure. They stated that traps provide food and protection to lobsters, and protect historic lobster grounds from mobile gear. Others commented that it is safety hazard to remove gear, particularly in the winter, and there are limited places to store traps.
- While few comments were given on the use of the most-restrictive rule, those who did comment did not support the application of the most restrictive rule to season closures.
- There were some commenters that said a winter closure is best if one were to be used (Jan-Mar). This would be least disrupt to the prime tourist season.

Issue 5: Uniform Regulations			
	Not Uniform	**LCMAs 4, 5 Uniform**	**LCMAs 2, 4, 5, 6 Uniform**
Individual	15	9	
Organization	4	1	
Form Letter			
Hearings			
MA	45		
RI	36		
CT			
NY	1		
NJ		1	
DE/MD	9		
Total	110	11	

Issue 5 Comments:

- Majority of comments did not support the standardization of regulations. Many stated that the LCMAs were created to reflect regional differences in the fishery and each LCMA should have the independence to make its own decisions.
- Delmarva fishermen supported the creation of a Delmarva management area. They supported standardized regulations through the Delmarva management area but not with other LCMAs.

Issue 6: Implementation in LCMA 3				
	Keep LCMA 3 Whole	**Split LCMA 3, One-Time Declaration**	**Split LCMA 3, Annual Declaration**	**Split LCMA 3, Overlap Zone**
Individual	13	1	2	1
Organization	4			
Form Letter				
Hearings				
MA	7			
RI	3			
CT				
NY				
NJ	2			
DE/MD				
Total	29	1	2	1

Issue 6 Comments:

- The majority of comments did not support splitting LCMA 3. They cautioned the Board against unintended consequences such as the migration of effort to the GOM/GBK stock and the devaluation of LCMA 3 permits.

Issue 7: De Minimis States		
	De Minimis States Not Exempt	**De Minimis States Exempt**
Individual	3	1
Organization		1
Form Letter		
Hearings		
MA		
RI		
CT	4	
NY		
NJ		
DE/MD		9
Total	7	11

Issue 7 Comments:

- Delmarva fishermen supported an exemption for de minimis states but did express concern that the language in Draft Addendum XXV could hinder future growth of the fishery.
- Some recommended all of LCMA 5 be given de minimis status.

General Comments on Draft Addendum XXV:

- Several comments were made regarding the low resolution of data from the offshore fishery and the Mid-Atlantic region. Some stated that there is no resource issue in the offshore and southern regions but noted that there is little data collected to support this claim.
- Comments given at public hearings supported further division of the SNE stock. Delmarva fishermen supported the creation of a separate management area south of Delaware Bay to reflect differences in the fishery. Fishermen from Martha's Vineyard supported the division of LCMA 2 along Buzzards Bay. Fishermen from Long Island Sound recommended they be independent from the SNE stock given they are separate from the open ocean. And finally, fishermen in Massachusetts and Rhode Island recommended LCMA 6 be assessed independent of the rest of SNE.
- Several comments contended that the SNE fishery has collapsed and disagreed with the water temperature information provided. Others commented that the data is out-of-date given the terminal year of the 2015 Stock Assessment is 2013.
- Fishermen in Rhode Island and Massachusetts supported the implementation of trap banking in federal waters, as per Addendum XXI and XXII.
- Some commented that the references points set for the SNE stock are not attainable.

Lobster Draft Addendum XXV Public Hearing

Bourne, Massachusetts
March 23, 2017
61 Participants

Attendees: Dave Magee (fisherman), Bruce Morrison (Ketcham Supply), Al Engles (RILA), Heather Ketcham (Ketcham Supply), David Demski (DND Lobster Inc.), Michael Horzesky (Ketcham Supply), Myron Horzesky (Ketcham Traps), Matthew Brasells (Ketcham Traps), Kenneth P. (Ketcham Traps), Ronald T. (Ketcham Traps), Sebastian Tix (Ketcham Traps), Bunitu (Ketcham Traps), Eulalio S. (Ketcham Traps), Carlos S. (Ketcham Traps), Chris Stien, Sup W. L., David J. M. (fisherman), Tim Walsh (fisherman), Paul McDonald (fisherman), Tony Pribash (fisherman), W. Brighton (fisherman), Dave Casoni (MLA), Willy Ogy (fisherman), Eric Moniz (fisherman), David Allen (fisherman), Jarrezz Drake (MLA), Karl Drake (LCMA 2), TomTom Krewice (fisherman), Tom Blier (fisherman), John Stephen (fisherman), Cory Medeiros (fisherman), Shelley Edmundson (MV Fishermen's Preservation Trust), Sean Leach (fisherman), Mark Leach (fisherman), William Herrdon (fisherman), Beth Casoni (MLA), George Silva (fisherman), Jason Drake (fisherman), David Bolton Jr. (fisherman), Lanny Dellinger (LCMT 2 Chair), Grant Moore (LCMT 3 Chair) Walton Jenkinson (fisherman), John Larsen (fisherman), Heather LaMarque (fisherman), Bendan Adams, Ben Whelden (fisherman), Dana Pazoll (fisherman), Bill Lister (fisherman), Michael O'Malley (Dauphine Fisheries), Frederick Dauphine (Dauphine Fisheries), Chris Stowell (fisherman), Henry Bordles (fisherman), Burton Shank (NEFSC), Peter Burns (GARFO), Tracy Pugh (MA DMF), Derek Orner (MA DMF), Story Reed (MA DMF)

Staff: Megan Ware (ASMFC), Dan McKiernan (MA DMF), Raymond Kane (MA Commissioner), Bob Glenn (MA DMF)

Issue 1: Target Increase in Egg Production

- 32 participants supported Option A (status quo), with a fall back of Option B (20% increase) if it is phased in over two years.
- 17 participants supported Option A (status quo). They stated that the severity of these regulations would severely impact the lobster industry.
- 5 participants recommended that the Board maintain the current regulations and see how the stock responds. They noted that trap reductions are ongoing in LCMAs 2 and 3 and the Board should see the results of those before any other changes are made. One participant noted that the reason fishermen and scientists have different conclusions regarding the state of the SNE stock is because there is a low resolution of data offshore.
- Two participants disagreed with the description of the SNE resource in the addendum. One participant questioned the statement that the SNE stock is in recruitment failure. He stated that there are fewer participants in the fishery, fewer traps, but landings have increased over the last five years. Another participant questioned if there is a truly a

crisis in the SNE lobster given landings are increasing. He stated that the real crisis is the potential impacts of the management measures included in the addendum.

- One participant noted that LCMA 2 is currently undergoing trap reductions and, as a result, they have already increased egg production. This means status quo does not mean a 0% increase in egg production.

Issue 2: Management Tools

- 36 participants supported the statement that only current trap reductions be used to achieve the target increase in egg production in LCMA 2.
- 45 participants did not support the use of season closures to achieve the target increase in egg production. One participant stated that a season closure would decrease the price of lobsters as there would be a flush of lobsters that hit the market when the season opens. Another participant stated that the lobster fishery cannot survive if there is a summer closure and asked that this option be removed from the entire addendum.
- Several participants spoke against gauge size changes. One participant stated that an increase in the gauge size will devastate the inshore fishery since the larger lobsters migrate offshore. Another participant stated that any change in the gauge size will be a death sentence to the lobster fishery. A third participant stated that if the gauge size is increased, the prevalence of shell disease will increase.
- Several participants stated that the current trap reductions are increasing egg production. 2 participants stated that it is not possible for fishermen to increase their soak time to compensate for fewer traps. This is because the optimal soak time is 6-7 nights. Any quicker than this, the bait and fuel costs are prohibitive. Another participant stated that they are already seeing the biological benefits of the on-going trap reductions and the reductions have reduced active traps given fishermen have had to buy multiple permits to stay whole. A third participant also noted that the studies reference by the TC were conducted in Maine where there is a much higher trap density.
- One participant noted that LCMA 3 went through a series of trap reductions in 2005 as well as an increase in the minimum size and no credit is given for these reductions in the addendum.
- One participant stated that LCMA 2 is the only remaining inshore fishery in SNE. He stated that any management tool other than the current trap reductions will put the inshore fishery out of business, causing a loss of fishery infrastructure and rippling economic effects.

Issue 3: Recreational Fishery

- 35 participants supported Option A (recreational fishery abides by all management changes).

Issue 4: Season Closure

- 37 participants did not support a closed season for LCMA 2. They commented that given the Jonah crab and lobster fisheries use the same gear, a closed season is not doable.

- 36 participants did not support a closed season for LCMA 3.
- One participant stated that he did not support season closures for anyone who lands lobster, including recreational fishermen and non-trap gears.
- Two participants noted that a season closure is always longer than what is written into regulations because it takes weeks to remove traps from the water and then weeks to set them after a closure.
- One participant stated that it is important to keep traps in the water because they provide an important source of food and nutrition for lobsters.
- One participant stated that he could survive if there was a winter closure in January and February.

Issue 5: Standardized Regulations

- 45 participants supported Option A. They did not support the standardization of regulations across LCMAs since they didn't want different LCMAs telling others what to do.

Issue 6: Implementation in LCMA 3

- 7 participants supported Option A (maintain LCMA 3 as a single area). One participant cautioned the Board against dividing LCMA 3 as this could displace effort into the GOM/GBK stock.

Issue 7: De Minimis

- Participants chose not to comment on this issue as they didn't feel it was appropriate to tell fishermen in the de minimis states what to do.

General Comments:

- 4 participants supported full implementation of the trap caps and trap banking as specified in Addenda 21 and 22 in federal waters. They stated that the program was an industry funded buy-out program and approved by the Commission in 2013; however, they are still waiting for implementation in federal waters. As a result, traps are being left in the water. They stated that, as a result, fishermen have faced difficult economic decisions because they don't know when implementation will start, if ever.
- 2 participants noted that fishermen saw more eggers in 2016 and there has been a steady increase in landings since 2016. One participant stated that this information points to an improvement in the stock condition. Another participant stated that the landings information doesn't coincide with the collapse of the stock.
- 2 participants asked if credit will be given for over-sized vents. They noted that credit had been given in the past.
- One participant stated that the Addendum needs to provide a definition of a 'functional fishery'. He expressed frustration that the goal of the document is to preserve a 'functional fishery', but no one knows what that means.

- One participant stated that the high water temperatures recorded in Buzzard's Bay are an anomaly because they are collected in very shallow waters. He did not believe the temperature values presented in the addendum are representative of the fishery.
- Another participant stated that at the October 2015 meeting, the Lobster Subcommittee agreed to do something in response to the 2015 Stock Assessment but also agreed that the action should not put people out of business. He expressed concern that the management measures in the addendum will severely hurt the industry.
- One participant recommended that future survey efforts be expanded offshore. He noted that most of the sampling occurs inshore where the lobster stocks were historically, but not currently, found and this is one reason why the science in the addendum is not consistent with what fishermen are seeing on the water.
- Several fishermen from Martha's Vineyard recommended that Area 2 be split into two sub-areas along an east/west line: one area from Buzzard's Bay to Martha's Vineyard and another area from Buzzard's Bay south. They stated that there is a separate aggregation of lobsters around Martha's Vineyard and recommended that each sub-area is assessed separately in the next benchmark stock assessment.
- Another participant noted that the current target and threshold used to manage the SNE stock are unattainable and should be changed.
- One participant commented that in 1997 a chemical plant was opened in New Bedford. Since then, there has been a decline in landings but no studies regarding the effect of this chemical treatment plant on the lobster stock have been conducted. He asked how the Commission expects fishermen to accept additional regulations when the destruction of the lobster stock is from chemicals.
- One participant stated that the purpose of the trap reductions in LCMA 2 was to both right-size the fishery and reduce fishing mortality. He noted that the second purpose is not mentioned in the addendum.
- One participant recommended additional tagging studies in the lobster fishery.

American Lobster Draft Addendum XXV for Public Comment

Atlantic States Marine Fisheries Commission
March 23, 2017
Massachusetts

-- PLEASE PRINT CLEARLY --

Name	Company/Organization	City, State
Dave Magee	Fisherman	Mattapoisett, Ma.
Bruce Morrison	Ketcham Supp	New Bedford, MA
Al Eagles	RILA LCMT 2	Newport RI
Heather Ketcham	Ketcham Supply	New Bedford MA
David Demski	PND Lobster Inc	Mattapoisett MA
Michael Horzesky	Ketcham Sup	New Bedford MA
Myron Horzesky	Ketcham Traps	New Bedford MA,
Mathew Brasel	Ketcham Traps	New Bedford MA
Kenneth [illegible]	Ketcham Traps	New Bedford, MA.
[illegible]	Ketcham traps	New Bedford Ma,
Sebastian Tix	Ketcham traps	New Bedford Ma
Benito	Ketcham	New Bedford MA.
Eulalio Sam	Ketcham traps	New Bedford Ma.
[illegible] Since	Ketcham	New Bedford Ma.
[illegible]		[illegible] MA.
[illegible]		Menemsha, MA
[illegible]	F/V Elizabeth Mae	Tashmoo Mass
Tim Walsh	F/V Helen L	Menemsha, MA
Paul McDonald	F/V Shearwater	Menemsha, MA
Tony Pribash	F/V Fish N Chips	Wareham MA
W. Brighton	F/V Martha Elizabeth	Menemsha, MA
Dave Casoni	MA. Lobstermen's Assoc	Scituate MA
Willy Ogg	F/V Happy Trails II	Swansea MA
Eric Moniz	F/V Never Home	Fairhaven MA 02719
Daniel Allen	F/V Terri Anne	Sandwich MA
Jarrett Drake	MLA	New Bedford
Karl Drake	Area 2 Lobster	Marion

Name	Company/Organization	City, State
Tom Tomkiewicz	Fisherman	Fairhaven MA
Tom Blier	Fisherman	Fairhaven MA
John S Stephen	F/V Rose	Menemsha, MA
Cory Medeiros	F/V Elisabeth Mae	Tashmoo, MA
Shelley Edmundson	MV Fishermen's Preservation Trust	Menemsha, MA
Sean Leach	F/V SEA HOLLY	Harwich MA
Mark Leach	F/V SEA HOLLY III	Harwich MA
William Herndon	F/V Shearwater	Menemsha, MA
Beth Casoni	MLA	Marshfield
George Silva	F/V Christine	Fairhaven, MA
Jason Drake	F/V [illegible]	Fairhaven, MA

Name	Company/Organization	City, State
David J Bolton Jr.	F.V. Honi-Do	New Bedford
Larry Delling	Area 2 LCMT Chair	Saunderstown, RI
Grant Moore	Area 3 LCMT Chair	Westport, MA
Walter Jenkinson	Area 2 F/V [illegible]	Chilmark MA
John A. Larsen	Area 2 F/V Summer Dawn	Chilmark MA
Heather LaMarque	F/V Shearwater	Menemsha MA
Brendan Adams		Eastham, MA
Ben Whelden	F/V Mark Benjamin	Woods Hole, MA
Dana Tazo	F/V Black Sheep	Provincetown, MA
Bill Lister	F/V Rosie K	Barnstable, MA

American Lobster Draft Addendum XXV Public Hearing

Narragansett, Rhode Island

March 22, 2017

41 Participants

Attendees: Todd Sutton (Sutton Enterprises), Gary Mataronas (Mataronas Lobster), Jarrett Drake (MLA), David Magee (fisherman), TomTom Krewice (fisherman), Louis Fusco (fisherman), James Violet (fisherman), Norbert Stamps (Jason & Daneille Inc.), Jay Swodona (fisherman), Kenneth Murgo (Trident Fisheries), Peter Brodeor (RILA), Dennis Ingram (fisherman), Eric Marcus (Marcus Brothers Inc.), Bill McElsay, Grant Moore (AOLA), David Borden (AOLA), Brian Thibeault (RILA), John Dagody (AOLA), Ted McCaffrey, Chris Campanale, Joe Baker, Tim Campanale Jr., Roy Campanale Sr., Don Deberardino (RILA), Greg Lisi, Heather Ketcham (Ketcham Supply), Greg Mataronas (RILA), Lanny Dellinger (LCMT 2 Chair), Robert Steward, John Moran (Athearn Marine), Michael Marchetti, Seamus Sullivan, Kevin Sullivan, Charles Borden, Al Engles (RILA), Richard S. (fisherman), Mark Gibson (RI DEM), Scott Olszewski (RI DEM), Conor McManus (RI DEM), Jason McNamee (RI DEM)

Staff: Megan Ware (ASMFC)

Issue 1: Target Increase in Egg Production

- 37 participants supported status quo (Option A) as their preferred management option. They stated that if status quo is not an option, the egg production target should be no more than 20% and this should be phased in over two years. Industry members stated that an increase greater than 20% will put fishermen out of business and the fishing industry will lose critical infrastructure. They noted that the Addendum seeks to keep a functional portion of the lobster fishery and Option A keeps the fishery functional; any increase greater than 20% would finish the industry.
- One participant noted that they are already seeing increases in egg production as there have been noticeable increases in the number of eggers offshore. As a result, status quo (Option A) does not really mean a 0% increase in egg production because egg production is on the rise.
- Another participant noted that additional management measures are not needed as parts of the fishery are already seeing increased landings and the benefits of the on-going trap reductions have yet to come to fruition.

Issue 2: Management Measures

- 26 participants supported Option A, with the statement that only trap reductions be considered as a management tool to achieve the increase in egg production.
- 32 participants supported the statement that, in LCMA 2, only current trap reductions should be used to achieve the target increase in egg production. They expressed frustration that trap reductions, which were proposed by the industry, are now being presented as a management tool which is not enough to result in biological impacts on the stock. They said that this is a dis-service to the industry.

- 28 participants supported the statement that, in LCMA 3, current trap reductions are used to achieve the target increase in egg production and that no further season closures or gauge size changes are implemented.
- 8 individuals stated that gauge size changes would crush the lobster industry, particularly inshore. Several participants spoke to the fact that increases in the minimum gauge size disproportionally impact the inshore lobster fleet as larger lobsters tend to migrate further offshore. As a result, an increase in the minimize size will limit the lobsters available to the inshore fishery. They noted that the increase in the gauge size from 3-1/4" to 3-3/8" has already caused landings to decline inshore, and LCMA 2 is the only remaining inshore fishery that is still profitable.
- One participant noted that the LCMA 3 gauge size has already been increased to 3-17/32 and the LCMA has taken the conservation of lobsters seriously.
- One participant noted that lobsters are maturing earlier and an increase in the gauge size would allow more time for lobsters to be exposed to natural mortality and shell disease.
- Many participants spoke about the ability of trap reductions to result in meaningful increases in egg production. One participant noted that there used to be 1.3 million traps in the water and today there is just a fraction of that effort. Another individual spoke to the caveats of the TC's analysis. He stated that it is not possible to haul fewer traps faster and the current trap reductions are already removing active effort as traps available for purchase are getting scarce. Another participant commented that the studies referenced by the TC were conducted in Maine where there is a much higher trap density. He also stated that many active fishermen have taken the trap reductions and not purchased traps to replace those cut. One participant cited the paper by Estrella & McKiernan as disproving the statement that fishermen haul traps more frequently in response to trap reductions. He also stated that the 2005 trap reductions reduced latent effort and, as a result, the current reductions are impacting active effort. Another participant noted that LCMAs should get the full 13.1% egg production increase predicted by the TC. Finally, two participants noted that the current trap reduction in LCMA 2 is higher than 50%, noting the tax on trap transfers and the linkage of Area 2 and 3 permits.
- One participant expressed concern that season closures could lead to a derby style fishery in which everyone goes fishing on the first day of the open season, causing market prices to drop.
- Another participant stated that a season closure results in the loss of traditional lobster grounds to other gear types such as trawlers.
- Two participants noted that the current escape vents sizes let out a percentage of legal lobsters and this conservation benefit should be taken into account.

Issue 3: Recreational Fishery

- 36 participants were in favor of Option A. They stated that Option C (which exempts the recreational fishery from season closures) would defeat the purpose of a season closure.

They also noted that Massachusetts has approximately 5,500 recreational permit holders and, at 10 traps a piece, this rivals the number of commercial traps in LCMA 2.

Issue 4: Season Closures

- 36 participants were opposed to season closures. They stated that when there is a season closure, infrastructure is lost and dealers go somewhere else. They also noted that the lobster fishery is now a multi-crustacean fishery and season closures could negatively impact Jonah crab harvest, most of which occurs in LCMAs 2 and 3.
- One participant prefaced that he was not in support of season closures, but noted that he does not support the use of the most-restrictive rule in regards to season closures (Sub-Option 2).
- One participant stated that he was not in favor of a season closure because, if an overlap zone is implemented in Area 3 (Issue 6, Option D), it could have a direct effect on the GOM/GBK stock.

Issue 5: Standardized Regulations

- 36 participants stated that they do not want to influence another LCMA's regulations and so they do not support standardized regulations (Option A). They stated that each LCMA should decide which regulations they want to implement.

Issue 6: Implementation of Management Measures in LCMA 3

- Three participants spoke in support of Option A (status quo). One individual stated that an unintended consequence of dividing LCMA 3 is that boats which typically fish west of the 70W line will move to GOM/GBK and stack-up along the boundary. This is particularly true for boats which harvest Jonah crab. Another participant stated that fishermen would have to pick the GOM/GBK side of Area 3 because the value of a GOM/GBK permit would likely be $100,000 higher than the value of the SNE permit. He also expressed concern about moving effort and how this could cause conflict given the territorial nature of the fishery. A third individual stated that Option A is easier to enforce.
- One participant stated that it is not fair to burden the fishermen who harvest lobster in the GOM/GBK stock.
- Another stated that a split of the GOM/GBK stock should only be considered if the current trap reductions are not enough to meet the target increase in egg production.
- One individual said that Option B should be removed.

Issue 7: De Minimis

- Participants generally agreed that they did not want to dictate what occurs in the de minimis states.
- One participant disagreed with the provision in Option B which requires the fishery to be closed to new entrants and recommended this be removed from the Addendum.

General Comments

- 7 participants highlighted that the water temperature trends shown in the presentation and in the stock assessment are deceiving as they measure water temperatures in shallow areas, such as Buzzard's Bay. They all noted that they have taken water temperature measurements in areas where they fish and have only seen temperatures above 20^{o}C one time. They stated that the stock assessment is misrepresenting environmental conditions in their area.
- 8 participants spoke to the importance of water quality and the need for the Board to consider and address this issue. One participant stated that the only problem he hears get discussed in water temperature but if there is poor water quality, the lobsters won't survive. Another participant noted that LCMT 2 and several industry organizations submitted letters regarding water quality to the Board and nothing has been done in response.
- 6 participants noted the increased predation on the lobster stock as a result of black seabass, spiny dogfish, and seals. They stated that it is futile to try and implement additional regulations on the lobster stock without first addressing the issue of predation.
- 7 participants urged the Board to hold off on any action until there is enough time to see the results of recent and current management changes. One individual stated that 10 years are needed to see an improvement in stock condition as a result of management measures. He said that the Board keeps implementing regulatory change after regulatory change without waiting for the management measures in place to work.
- 4 participants noted that they have seen improved stock conditions and a higher abundance of eggers over the last few years.
- 3 participants recommended that Long Island Sound be removed from the SNE stock and separate reference points be applied to that region. He noted that New York and Connecticut used to catch 65% of the lobster and now they only catch 5%, and it is this decline which is impacting the results of the stock assessment. Without Long Island Sound, the assessment of SNE would be more favorable.
- 2 participants expressed frustration that the trap banking program has not been implemented in federal waters. One stated that Area 3 has tried to reduce the trap cap to ~1500 traps but the federal government is unwilling to support this effort. He stated that, as a result, it is very hard to plan financial investments into the fishery. Another stated that if the trap caps and banking had been implemented as planned, the conservation efforts in LCMAs 2 and 3 would be further down the road.
- 2 participants stated that better data is needed in LCMA 3. In particular, as lobsters migrate further offshore, increased settlement studies need to be conducted in the offshore areas.
- 2 participants stated that it is disturbing that the de minimis states each get a vote on the Lobster Board even though Rhode Island is a primary harvester of lobster in SNE.
- 2 participants highlighted the quasi-aquaculture nature of the lobster fishery as traps provide protection and feeding stations. This makes fishermen stewards of the resource.

- 2 participants noted the document states that translating egg production to recruitment relies on favorable environmental conditions. They did not feel comfortable with the use of the word “if” in the goal of the addendum.
- One individual expressed frustration that, when this addendum is implemented, the data from the 2015 Stock Assessment will be four years old and likely out of date.
- One participant stated that improved enforcement of management measures offshore would be beneficial.
- Another participant noted that data collected for a wind project found a healthy lobster population offshore. He asked why the TC is not finding similar results.
- One participant stated that climate change is not being considered in the correct manner and it is not the government’s place to put fishermen out of business. Each fisherman should be able to make a decision as to when a fishery is no longer economically sustainable. To have a sustainable lobster fishery, there needs to be a sustainable business and a robust stock.
- One participant highlighted that the purpose of the current trap reductions is two-fold: it is to right-size the fishery to the stock and it is also to reduce fishing mortality. He stated that this second purpose is not highlighted in the addendum.
- One individual stated that the goal of the Commission is impossible as we cannot control nature. He stated that the driving force behind the stock problems is warming waters and both the stock and fishery are adapting to this change by going further offshore.
- One individual asked the TC to acknowledge the data collected by fishermen and to improve collaboration between scientists and the industry.

American Lobster Draft Addendum XXV for Public Comment

Atlantic States Marine Fisheries Commission
March 22, 2017
Rhode Island

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Name	Company/Organization	City, State
Todd Sutton	Sutton Enterprises	Newport R.I.
GARY MATARONAS	MATARONAS LOBSTER	SAKONNET RI
JARRETT DRAKE	MLA / FISHERMAN	MARION, MA
David Magee	Fisherman	Mattapoisett, Ma.
Tom Tomkiewicz	Fisherman	Fairhaven, MA
LOUIS FUSCO	FISHERMAN	PT. JUDITH R.I.
James Violet	Fisherman	Newport RI
NORBERT STAMPS	Jason + Danielle inc.	Point Judith
JAY SWOBODA	F/V KAREN ANN	POINT JUDITH
Kenneth Murgo	Trident Fisheries	Bristol, RI
Peter E. Brodeur	R.I.L.A.	Galilee RI
DENNIS TIERNAN	BLUE MOON	NEWPORT RI
Eric Marcus	Marcus Brothers Inc	Saunderstown RI
Bill McElroy		
Grant Moore	AOLA	Westport MA
[illegible]	AOLA	
Brian Thibeault	RFLA	
John [illegible]	AOLA	Wakefield RI
Ted McCAFFREY	[illegible]	Narr, RI
Chris Campanale	[illegible]	N. Kingstown RI
Joe Baker	Autumn and Josh	Charlestown, RI
Roy Campanale Jr	[illegible]	Point Judith
Roy Campanale Sr	[illegible] Sr	Point Judith
DON DEBERARDINIS	R.I.L.A	CHARLESTOWN, RI
Greg Lisi		Wakefield RI
Heather Ketcham	Ketcham Supply	New Bedford MA
Greg Mataronas	Pres. - RILA	Sakonnet, RI
Lanny Dellinger	LCMT2 chair	Saunderstown, RI

Name	Company/Organization	City, State
Robert Stewart		Wakefield RI
John Morani	Atheorn Marine	Fairhaven, MA
Michael Meredith	Captain Robert	Wickford RI
Seamus Sullivan		Little Compton, RI
Kevin Sullivan		Little Compton, RI
Charles Borden	Cockeast Fisheries	Westport MA/L.C. RI
Richard Shelton	Fishermen	Little Compton RI
Al Eagles	RILA LCMT 2	Newport RI

American Lobster Addendum XXV Public Hearing

March 21, 2017
Old Lyme, Connecticut
33 Participants

Attendees: Kevin Smith, John Piccoli, Tony Carol (Western LIS Assoc.), Roger Flate (WLIS), Tom Bongo, Robert Granfield (Granfield Fisheries), Peter Consiglio (Poppa-C), Nick Crismak (CCLA), John Rogers (J. Fish), D. Emery, Emily Boushee (Sen. Murphy's Office), Evan Douton (Niantic Fisheries), John Whittaker (fisherman), Dart Mansi (Guilford Lobster), Charlie Wetmore, Geal Roderich (Captain Bait Fisheries), Rob Smith (East End lobster), Coyer K., Corey Matias, Don Handal, Tim Visel (Sound School), Jece Lacoske (Korey Lobster), Craig Miner (CT Legislature), Michael Grimshaw (SNEFALA), Mike Kalaman (Norm Bloom & Son), T. Karbowski, W. Carlson, Antonio Cruz, Cheryl Cruz, Philip Dunlop, DJ King (King Lobster)

Staff: Megan Ware (ASMFC), Mark Alexander (CT DEP), Colleen Giannini (CT DEP)

Issue 1: Target Increase in Egg Production
29 participants were in favor of status quo (Option A). Individual comments were as follows:

- One individual stated that there is nothing more the Long Island Sound lobster fishery can do and still have a profitable business. He noted that regulation changes impact fishermen as well as the restaurants that sell lobster.
- Another participant stated that there has already been a 95% reduction in effort in the Long Island Sound lobster fishery. He asked how much more of a reduction the Commission is expecting these fishermen to take?
- Two participants commented that Long Island Sound is its own area and it does not have the same problems as the ocean. They felt that Long Island Sound should be separate from the rest of Southern New England and that Connecticut should implement its own management measures independent of other states.
- Several participants noted that the 2016 fishing year saw a noticeable increase in the abundance and size of lobsters. As a result, they asked that the Board's decision in May be postponed until landings data from 2016 becomes available so that the Board can see the lobster stock is rebounding.
- Two participants commented that the target and threshold by which the Commission manages lobster are unattainable.
- Several participants commented that fishing effort is not the source of stock declines. Three participants noted that pesticides killed lobsters in the 1990's and as a result, the lobster fishery is hanging on by a thread. They stated that they have seen lobsters die in 40-50^{o}F water as a result of pesticides, which compromise the specie's immune system. Three other participants pointed to the increased predation on lobster as a reason for the decline. They noted that there are so many scup, black seabass, and seals in the water now and they eat everything. He felt that the correct response is to increase the

quota for scup and black seabass. Overall, there was a consensus that if climate change or predation is the cause of the decline then status quo is the only option.

- Participants asked for improved studies and greater information on other potential causes of the stock decline. One participant asked why the impacts of shell disease were not addressed in this addendum. Another attendee asked the Commission to investigate the impacts of snow salt on the lobster stock. One participant commented that LIS is not under the Clean Water Act and, as a result, pollutants maybe impacting the stock.
- One participant disagreed with the claim that climate change is impacting the stock. He stated that lobsters move to cooler waters if it gets too warm; they do not just stay in one place and die.
- One participant highlighted the growing age of the fleet and the fishermen. He stated that the lobster fishery is really turning into a part-time fishery and effort is naturally declining. He did express concern about the latent effort that could re-enter the fishery if the stock rebounds.
- Several fishermen provided recommendations for other management programs which could be implemented. One fisherman recommended that there be federal buy-out program for the remaining lobstermen or that opportunities are made available to these fishermen to harvest other species. Another fisherman recommended that they get paid to release lobsters back into the water so that baited traps can continue to feed the fish. Two participants recommended the state bring back its hatchery program which was successful in the 1930's and 1940's.
- Another participant stated that the current regulations are working in concert with the environment to improve the lobster stock. This is why fishermen saw a higher abundance of lobsters in 2016. He noted that Hurricane Sandy brought an in-flux of ocean water into Long Island Sound which reset the ecological equilibrium of the Sound. He also noted that fishermen help feed and support the lobster stock by providing bait in fish traps. When there were more traps in the water, there were more lobsters. As the number of traps has declined, the number of lobsters has also declined.
- One fisherman noted that the playing field is not even as the Commission has money to hire scientists but fishermen don't have the money to hire people to refute the science.

Issue 2: Management Measures

- One individual said that a gauge size increase would drive fishermen out of business. Another agreed stating that a 3.5" minimum gauge size would destroy the lobster industry in the Sound.
- One fisherman stated that gauge size changes could necessitate changes in the vent size and that this is a huge expense for fishermen.
- One participant commented that if there is a larger gauge size, consumers will have to pay $20 for a lobster which will decrease the market demand.
- In regards to trap reductions, one LCMA 2 fisherman commented that it is impossible for Connecticut fishermen to compete with the Rhode Island and Massachusetts fishermen in the Trap Transferability Program. This is why only a few CT fishermen have purchased

traps. He also stated that the operating costs of the fishery make it impossible for fishermen to fish harder with fewer traps.

- One participant stated that the best thing for the lobster stock is to leave traps in the water as they provide protection and food for the species. As a result, trap reduction should not be considered.
- Two participants recommended that a v-notch program be added as a management tool for consideration in this addendum.

Issue 3: Recreational Fishery

- One participant recommended that whatever regulatory changes are implemented in the commercial fishery should also apply to the recreational fishery (Option A). He commented that many recreational fishermen are harvesting a fair amount of lobsters and some are even selling them. As a result, they should be subject to the same management changes.

Issue 4: Season Closure

- One fisherman noted that there is no place to put traps if they have to be removed during a season closure. He did not support Option A.
- Another fisherman commented that there is a lot of labor involved in removing traps from the water and there are safety issues that arise, especially in the winter. He also did not support Option A.

Issue 5: Standardized Regulations

- One participant noted that having multiple gauge sizes among the LCMAs would be too cumbersome.
- One participant stated that while Long Island Sound should be able to do what it wants, various gauge sizes among the LMCAs could be a disaster.

Issue 6: Implementation of Management Measures in LCMA 3
No comments provided.

Issue 7: Management Action in De Minimis States
No comments provided.

American Lobster Addendum XXV Public Hearing

March 27, 2017
Derby, Connecticut
15 Participants

Attendees: Roger Frate Jr (WLIS), John Whittaker (fisherman), Geal Roderick (Captain Bait Fisheries), Rob Smith (East End lobster), Craig Miner (CT Legislature), Mike Kalaman (Norm Bloom & Son), Antonio Cruz (WLIS), Philip Dunlop, Ely Drysten (WLIS), Richard Evans (WLIS), Andrew Bonetti (WLIS), Corey Matias (WLIS), Gary Matias (WLIS), Brian Matias (WLIS), Joaquim Matias (WLIS), Tom Wilson (WLIS), Chris Kappla (WLIS)

Staff: Mark Alexander (CT DEEP), Colleen Giannini (CT DEEP), Colonel Kyle Overturf (CT DEEP)

Issue 1: Target Increase in Egg Production
13 participants were in favor of status quo (Option A). Individual comments were as follows:

- One individual stated that if the high abundance of finfish in the Sound are going to eat the eggs off of the egg bearing females, what is the point of increasing egg production?
- Another participant stated that there was no point in increasing egg production if he couldn't fish for lobster. He stated that lobstering was important to tourism in Connecticut and that a V-Notch program is needed.
- Another participant stated that the V-Notch program from eight years ago could be what is responsible for the increase in landings seen in the last two years. Stated that LCMA 4 used V-Notching for the 10% reduction required in 2010 and LCMA 6 should be able to use V-Notching now.
- Another participant stated that traps provide food and shelter.
- Another participant stated that if we implement these measures and catches rebound, is there any chance they will be relaxed?
- Another participant stated that this draft addendum should wait until after the 2016 numbers are in, that environmental conditions in Long Island Sound are improving and there has been large attrition in the fishery.
- Another participant stated that trap allocations of 57 CT lobstermen and 47 NY lobstermen are more representative of the number of traps being fished than what is indicated as total traps allocated. He felt there should be an economic impact analysis included in the draft addendum.
- An individual stated that there is nothing else the lobster fishery can do and still have a profitable business. He noted that regulation changes impact fishermen as well as the restaurants that sell lobster.

Issue 2: Management Measures

- One individual said that a gauge size increase would disproportionately affect fishermen in LCMA 6 because lobsters are bigger in LCMA 3.
- One fisherman did not support a gauge increase.

- One participant commented that there is a west to east migration of lobster out of the Sound and when they leave they don't come back and that these measures will not preserve any functional portion of a fishery in CT. He voted no on it all.
- One participant stated these measures are being rushed and the draft addendum is biased toward blaming fishing mortality.

Issue 3: Recreational Fishery

- One participant recommended removing recreational fishing effort.
- Another participant said all measures should be applied to recreational fishermen.

Issue 4: Season Closure

- One participant stated that fishing for Jonah crab was not an option for LCMA 6 fishermen.
- Another participant stated you would have to steam 30 miles east of Stonington to catch a Jonah crab.
- One participant stated there is no market for used lobster gear and that a summer closure would completely eliminate the CT commercial lobster fishery.

Issue 5: Standardized Regulations
No comments provided.

Issue 6: Implementation of Management Measures in LCMA 3
No comments provided.

Issue 7: Management Action in De Minimis States

- Four participants stated *de minimis* states should be required to implement the same measures.

American Lobster Draft Addendum XXV for Public Comment

Atlantic States Marine Fisheries Commission
March 27, 2017
Connecticut

-- PLEASE PRINT CLEARLY --

Name	Company/Organization	City, State
Jeff Jacoske	Conn Legislature	Watertown CT
Tony Minor		Litchfield CT
Michael Grimshaw	SNEFALA	Stonington CT
Mike Kalaman	Norm Bloom & Son	Norwalk, CT
T. Kanbowski		Clinton
W. Carlson		Milford
Antonio J Cruz		Bridgeport
Cheryl A Cruz		Bridgeport CT
Philip Dunlop		West Hartford CT
DJ King	King Lobster	Branford CT

American Lobster Draft Addendum XXV for Public Comment

Atlantic States Marine Fisheries Commission
March 27, 2017
Connecticut

-- PLEASE PRINT CLEARLY --

Name	Company/Organization	City, State
Kevin Smith		Killingworth CT
John Piccoli		Clinton, CT.
Tony Carlo	Western LIS Ass	Norwalk CT
Roger Frate	Pres WEIS	Darien Conn
Tom Bongo		Niantic, CT
Robert Granfield	Granfield Fisheries	Milford ct
Peter Consiglio	Poppa-C	East Haven ct
Nick Crismale	CCLA	Guilford CT
John Kaye	Tel Fish	Westbrook CT
Del Emery		Stonington CT
Emily Boushee	Senator Murphy's office	Hartford CT
Evan Pouton	Niantic Fisheries	Niantic CT
John Whitaker	F/V Whistler	Noank ct
Bart Mansi	Guilford Lobster	Guilford
Charlie Wetmore		Norwalk, CT
Gerald Roderick	Captn' Bait Fisheries	
Rob Smith	East End Lobster	Stonington CT
[illegible]		Stamford
Corey Matias	Goldfinch	Bridgeport
Don Handal		Old Greenwich
Tim Visel	Sound School	New Haven CT

American Lobster Draft Addendum XXV for Public Comment

Atlantic States Marine Fisheries Commission
March 27, 2017
Connecticut

-- PLEASE PRINT CLEARLY --

Name	Company/Organization	City, State
Antonio Cruz	Daddy's Lobsters	Bridgeport
Geal Roderick	Capt'n Bait	Mystic CT
Ely Dryster	on Time Lob.	Stratford, CT.
Richard EVANS	on Time lob	ORANGE CT,
Andrew Boneth	Red Gill Fisheries SP	Milford, CT
Corey Matias	CPM Enterprisee	Bridgeport CT
Gary Matias	G & G Shellfish	Bridgeport CT
Brian Matias	BM Fisheries	Bridgeport CT
Joaquim Matias	Golfinho	Bridgeport, CT

Name	Company/Organization	City, State
Mike Kalaman	Norm Bloom & Son	Norwalk, CT, 06855
Tom Wilson	Wilson Lobster	Norwalk CT
Rob Smith	East End Lobster	Stonington CT
Roger Frate Jr	Darien Seafood	Trumbull, CT
Chris Compton		Stratford CT
Craig Miner	ASMFC Legislature	Litchfield CT
Philip Dunlap		West Hartford, CT

American Lobster Addendum XXV Public Hearing

East Setauket, New York
March 20, 2017
36 Attendees

Participants: Frank DiMeglio (fisherman), Brian Rode (Donna May Fisheries), Jim King (fisherman), Vincent D. (fisherman), Tom Eckardt (fisherman) Vic Vecchio (NOAA Fisheries), Tim Hatch (fisherman), Al Schaft (fisherman), David Bornemann (Long Island Sound Lobstermen's Association), John German (LISLA), Stephen Pigeon (US Coast Guard), Robert Migdalshi (LISLA), Tony S. (LISLA), Larry McLoughlin (LISLA), Sam Rispoli (LISLA), Ed Rodman (LISLA), Arthur K. (LISLA), Nino Locascio (Mastic Seafood), Rolne D., Anthony Rispoli (fisherman), Toe Vincent (fisherman), Chris Black (fisherman), Joe Finke, Mike Kalaman, Roo S., Ron R., Pete Ringer., Pete Lauda, George Doll (LISLA), Arnold Leo (Town of East Hampton), Pete W. Ringer (LISLA), Barry Lipsky (Long Island Divers Association)

Staff: Megan Ware (ASMFC), Jim Gilmore (Director NY DEC), Emerson Hasbrouck (NY Commissioner), Kathy Moser (Deputy Commissioner NY DEC), John Maniscalco (Bureau Chief NY DEC)

Issue 1: Target Increase in Egg Production
30 participants supported Option A (0% increase in egg production) or a relaxation of the regulations. Individual comments were as follows:

- One participant stated that the regulations put in place in 2014 are just starting to take affect and the Board needs to give the current regulations more time to see stock improvements. He stated that Hurricane Sandy provided a flush of ocean tides into Long Island Sound which benefited the stock and the fishermen saw a noticeable increase in lobster abundance in 2016. He expressed frustration that the Board is regulating the fishermen, not the fishery, and the fishermen aren't the cause of the lobster stock decline.
- Another participant noted that coastwide lobster landings are at an all-time high and since Amendment 3 there have been 25 addenda which have implemented roughly 50-60 regulations cumulatively on the lobster fishery. He asked if the Board thought that 2 to 3 more regulations would really improve the stock? He also questioned if this is a 'feel-good' addendum given the Lobster Board cannot control climate change or predation. He noted that the lobster stock in Long Island Sound is an important source of income for fishermen and this addendum could have serious economic consequences.
- One fisherman questioned if an adequate amount of data on the lobster fishery is being collected in Long Island Sound. He pointed to the high catch rates in 2016 and stated that these lobsters had to come from eggs.
- One participant felt that the science included in the addendum does not represent the best available science. He commented that the accurate temperature threshold for

lobsters in Long Island Sound is 25°C, not 20°C, as LIS lobsters are reared in warmer waters. He also stated that greater regulations will further degrade the lobster stock as the lobster fishery feeds the lobster population through bait. It is this abundance of bait at the bottom of the ocean which helps lobsters thrive. As more regulations reduce effort in the fishery, the stock will continue to decline.

- One participant asked why the Commission is not looking into the use of pesticides and their negative impact on the stock.
- Several participants pointed to an increase in predation by species such as black seabass as the reason why the lobster stock has decreased. They asked why the quotas for these predators are not being increased given their high abundance.
- Others commented that if climate change is truly the cause of the lobster stock decline, what is the point of this addendum? One participant commented that the earth naturally goes through changes and we are finally recording those changes. Another pointed that the water temperature in Long Island Sound is 34°F so the waters are not too warm.
- Several participants commented that the lobster fishery is self-regulating and there is no need for regulations in Long Island Sound.
- One participant asked what is a good level of egg production? He said that observer data shows 60% of females had eggs. Is this an adequate level?

1 participant did feel that some action should be taken in Long Island Sound. He stated that he has seen the benefits of the gauge size changes and the season closure and wonders what happens as the stock continues to improve and fishermen re-enter the fishery? Will the expansion of effort negate the positive benefits seen thus far?

Issue 2: Management Tools

- Two participants noted that there are only 10,000 traps left in the New York lobster fishery. They asked how could a trap reduction be taken on such a low number of traps when there used to be over 360,000 traps in the water?
- One fisherman commented that gauge size changes could necessitate the need for vent size changes, which is an added cost to the fishermen.
- Another participant expressed concern with gauge size changes as they could impede interstate commerce. If the gauge size is increased and New York cannot import smaller lobsters from Maine, consumers will not be able to get a standard size lobster and all lobster will cost over $15.
- One fisherman asked if the Commission has done a study on the number of traps actually fished as some fishermen may order trap tags but not fish their traps.
- One participant stated that a gauge size increase to 3-5/8” would completely destroy the fishery.

Issue 3: Recreational Fishery

- One participant commented that any of the management tools currently being considered would be devastating to the recreational dive fishery. He commented that

the dive fishery supports many dive shops and is a source of economic revenue along the coast.

Issue 4: Season Closures

- One participant commented that if you take all traps out of the Sound, then there is no place for the lobsters to hide.

Issue 5: Uniform Regulations

- One participant did not support standard regulations across LCMAs (Option A) as there are different conditions along the coast which require different regulations.

Issue 6: Implementation of Management Measures in LCMA 3
No comments given.

Issue 7: Management Action in De Minimis States
No comments given.

American Lobster Draft Addendum XXV for Public Comment

Atlantic States Marine Fisheries Commission
March 20, 2017
New York

-- PLEASE PRINT CLEARLY --

Name	Company/Organization	City, State
Frank DiMeglio	P/V Atlantic Queen Atlantic Warrior	Brooklyn, NY
Brian Rade	Donna Mary Fisheries	Montauk NY
Jim King	F/V Lobster One	Mattituck
Vincent Daunn	F/V Lady K	Montauk
Tom Eckardt	F/V Laurentide	Montauk
Vic Vecchio	NOAA Fisheries	E Hampton, NY
Tim Hatch	F/V Rainbow II	Freeport, NY
Al Schaffer	F/V Leatherhead	E. Hampton NY
David Borneman	LISLA	Mount Sinai
John German	LISLA	Brooklyn
Stephen Pigeon	US Coast Guard	Coram, NY
Robert Mikalski	LISLA	
Tony Skrezec	LISLA	
Larry McLoughlin	LISLA	New Rochelle NY
Sam Rispoli	LISLA	Mattituck N.Y.
Ed Rodman	LISLA	NY
Arthur Kretschmer	LISLA	Mattituck NY
Nino Locascio	Mastic Seafood	Mastic N.Y.
[illegible]		Port Jeff. N.Y.
Anthony Rispoli	F/V Isabella Leigh	Mattituck NY
Joe Vincent	Lobsterman	Northport NY
Chris Black	F/V Petrel	Northport NY
Joe Finke		Bayville NY
Mike Kalaman	Norm Bloomdson	Norwalk, CT
[illegible]	M-M-Shellfis	CT
Ken Kinger JR		NY Northport
Pete Kinger		NY Northport
Pete LaFuda		NY
George Doll	LISLA	NY
Arnold Leo	Town of East Hampton	NY
Pete W Ringer	LILA.	
[illegible]	Long Island Dives Assoc	

Lobster Draft Addendum XXV Public Hearing

Belmar, New Jersey
March 15, 2017
37 Participants

Attendees: Joe Wagner (JW Commercial Fishing), Carmen Conti (Carmen's Lobster), Frank M. (FUB Divers), Glenn Arthur (NJCDC), Carlo DiMeglio (fisherman), Frank Dimeglio (fisherman), Anthony Dimeglio (fisherman), Peter Dimeglio (fisherman), Josh O'Conner, Paul Ritter, Barbara Pavia, Joe Pavia, Frank Koch (fisherman), Joe Horvath Jr. (fisherman), Adam Horvath (fisherman), Joe Horvath Sr. (fisherman), Dan Lieb (Divers Two store) Pat Fehily (fisherman), Richard Van Salisbury, Howard Rothweiler (rec diver), John Galvin (Ocean Wreck Divers), Andrew Trail (Ocean Wreck Divers), John M. (Off the Board), Bill Burdge, Oscar Maia (Maia's JMar), Gary Smith (Dina Dec II), D. Smith (Dina Dec II), Royce Wingerter (Brothers Fish), Steve Celeste (fisherman), Tom Wiesneiski

Staff: Peter Clarke (NJ DFW), Tom Baum (NJ DFW)

Issue 1: Target Increase in Egg Production

- Three LCMA 4 fishermen stated that there is a lack of knowledge of the SNE lobster stock and that management measures should not change (Option A). One fisherman noted that all of the lobster data is collected from Area 2 and the results of this data should not be applied to Areas 4 and 5. He stated that Areas 4 and 5 need more data collection on the lobster fishery.
- One LCMA 4 fisherman stated that Area 4 should be evaluated on its own and noted that chemicals are killing lobsters in Long Island Sound.
- One LCMA 4 fisherman commented that predation from ocean pout is killing the lobsters but noted that there is sufficient egg production in the lobster fishery as 40%-50% of the lobsters he sees have eggs.
- One individual representing the NJ Dive Council supported a 20% increase in egg production (Option B).

Issue 2: Management Tools

- One individual representing the NJ Dive Council supported the use of all management tools in this addendum (Option A).
- One individual from the recreational diving community did not support season closures because he stated there would be great economic impacts. He favored a gauge size change over a season closure.

Issue 3: Recreational Fishery

- One participant representing the NJ Dive Council supported Option C, in which the recreational fishery only abides by gauge size changes and is exempt from trap reductions and season closures.

Issue 4: Season Closures

- Two LCMA 4 lobstermen stated that gear should stay in the water during a closed period so that Jonah crab can be harvested (Options B and C). One individual did note that he is against season closures because they will put the lobstermen out of business.

Issue 5: Uniform Regulations

- One participant representing the NJ Dive Council supported uniform regulations across LCMAs 4 and 5 (Option B).

Issue 6: Implementation of Management Measures in LCMA 3

- Two participants (one representing the NJ Dive Council and a LCMA 5 lobsterman) recommended that Area 3 be maintained as a single area (Option A).

Issue 7: De Minimis

- One participant recommended that all of Area 5 be given de minimis status. He noted that there are only 15 lobster boats in all of Area 5.

American Lobster Draft Addendum XXV for Public Comment

Atlantic States Marine Fisheries Commission
March 15, 2017
New Jersey

-- PLEASE PRINT CLEARLY --

Name	Company/Organization	City, State
Joe Wagner	NJ Commercial Fishing	Cape May NJ
Carmen Conti	Carmen's Lobster Pooling Inc.	Sea Isle City NJ
Frank Morcalik	FLB Divers	Neptune NJ
GLENN ANTHUM	NJCDC	TINTON FALLS, NJ
Carlo DiMeglio	FV MY WAY	Brooklyn N.Y.
Frank DiMeglio	FV Atlantic Warrior	Brooklyn, N.Y.
ANTHONY DIMEGLIO	FV MY WAY 3	Brooklyn NY
Peter DiMeglio	FV MyWAY	Brooklyn, N.Y.
Josh O'Connor		Cape May, NJ
Paul Rettler		Highlands NJ
Barbara Parm		Jackson NJ
Joe Parisi		Jackson, NJ
Frank Koch	F/V Natural	Atlantic City, NJ
Joe Horvath JR	F/V FullyLoaded	Shark River, NJ
Adam Horvath	F/V BABY DOLL	Shark River, NJ
Joe Horvath SR	F/V BABY DOLL	Shark River, NJ
Dru Lieb	Divers Two (store)	Avon NJ
Pat Fehily	F/V MAJOR EXPOSURE	Pt. Pleasant, NJ
Richard VanSolisbury		Pt Pleasant NJ
Howard Rothweiler	Reef Diver	Toms River NJ
John Galvin	Ocean Wreck Divers	Toms River, NJ
Andrew Trail	Ocean Wreck Divers	Toms River, NJ
John MyKSZA	OFF THE BOAT SEA	PT PLEASANT N.J.
Bill Burgee	Meghan Hannah	SHARK RIVER NJ
OSCAR MAIA	MAIA'S 3 MAR	JACKSON-NJ.
Gary Smith	Dina Dee II	Barnegat Light NJ
Dennis Smith	Dina Dee II	Barnegat Light NJ

Name	Company/Organization	City, State
Royce Wingerter	Brothers Fish	Sayreville

Lobster Addendum XXV Public Hearing

Ocean Pines, Maryland

12 Participants

Attendees: Shah Amir (fisherman), Kerry Harrington (fisherman), Merrill Campbell (SCOC Fisheries), Chester Townsend (fisherman) Steven Doctor (MD DNR), Gary Tyler (MD DNR), Wes Townsend (fisherman), Tom Smith (fisherman), Roger Wolleyhan (fisherman), Earl Gwin (fisherman)

Staff: Megan Ware (ASMFC), Craig Weedon (MD DNR)

General Comments:

- Participants stated that the Delmarva lobster fishery is different and separate from that which takes place north of the Delaware Bay. As a result, lobster stock declines in areas such as Long Island Sound should not impact the lobster fishery in Delmarva. Participants commented that the lobster stock in DE, MD, and VA is not depleted and the historic lobster fishery in this region should be preserved.
- Participants recommended that the lobster stock south of Delaware Bay be set aside as a Delmarva area and that this area be managed separately from the Southern New England stock. They stated that the problem with the lobster stock is contained in areas further north and the Delmarva area should not be subject to management changes.
- Participants expressed concern about the lack of data collected on the Delmarva lobster fishery and highlighted the need for local surveys which measure lobster abundance in offshore areas. Participants commented that the NMFS trawl survey is an inappropriate measure of lobster abundance as it does not sample areas which have high lobster abundance.

Issue 1: Target Increase in Egg Production

- Participants supported the creation of a separate Delmarva lobster stock in which a 0% increase in egg production be implemented (Option A). Attendees stated that the Delmarva fishery should be separate from SNE as the lobster stock is not depleted south of Delaware Bay, there are very few lobster traps in LCMA 5, there is already a season closure from February – March, and the gauge sizes in Maryland are already restrictive.
- Several attendees stated that there is no lobster data from Maryland to justify the management measures in Addendum XXV.
- Several attendees stated that, if management changes are implemented, they need to be applied along the entire coast (Maine through Virginia) given that climate change is impacting the whole coast.

Issue 2: Management Tools

- Participants did not support any of the options in this issue as they stated that the Delmarva lobster stock should be separated from the Southern New England Stock.

- Generally, participants did not support the use of trap reductions. They commented that each fisherman has a different allocation (ranging from 300 traps to 1300 traps) and, as a result, trap reductions have varying impacts on fishermen. Furthermore, they stated that there are very few traps fished in LCMA 5 and so there isn't an excess of traps to reduce.

Issue 3: Recreational Fishery

- Overall, the participants, who were majority commercial fishermen, did not want to comment on the recreational fishery but did state that the recreational fishermen should be left alone and regulations should be kept as is.

Issue 4: Seasonal Closure

- Participants were not in favor of a season closure and did not support *Option A: Lobster Traps Removed from Water*. They noted safety concerns with having to remove traps from the water during a season closure as this forces large amounts of gear on their vessels. They also commented that a summer closure would decrease the efficiency of the lobster fleet as this is when catch is highest; multiple trips in the winter are as valuable as a one trip in the summer.
- Participants expressed concern that long season closures could provide an opportunity for trawlers to move in on historic lobster fishing grounds, destroying the bottom habitat and the local lobster population.

Issue 5: Standardized Regulations

- Participants supported the creation of a Delmarva area in the lobster fishery that is separate from the Southern New England stock. Participants supported uniform management measures in the Delmarva area.
- Participants recommended that LCMA 5 be removed from Options B and C as LCMA 5 should be independent from the other LCMAs.

Issue 6: Implementation of Management Measures in LCMA 3

- *No comments provided.*

Issue 7: Management Action in De Minimis States

- Generally, participants favored *Option B: De Minimis States Exempt from Provisions of Addendum XXV* but expressed concern that the criteria listed in this option prevents future expansion of the lobster fishery. They commented that if the lobster fishery is not open to new entrants, this could hurt future generations of fishermen. Furthermore, the 40,000 pound de minimis definition could stifle growth of the lobster fishery.

American Lobster Draft Addendum XXV for Public Comment

Atlantic States Marine Fisheries Commission
March 16, 2017
Delaware/Maryland

-- PLEASE PRINT CLEARLY --

Name	Company/Organization	City, State
SHAIT AMER	DELLA MARIE	Ocean City, MD
KERRY HARRINGTON	SEA BORN / INTEGRITY	Ocean City, MD
Merrill Campbell	SCOC Fisheries	Ocean City, MD
Chester Townsend	F/V Andrew G	Ocean City, MD
Craig Weedon	DNR-MD	Kent Island, MD
Steven Doctor	DNR MD	OC, MD
Gary Tyler	DNR MD	OC, MD
Wes Townsend	F/V PAKA	OC, MD JR/DE
[illegible]	F/V ELLA	VIRGINIA
ROGER B WOOLEYHAN	F/V LABRADOR WOOLEY BULLY	DEL
EARL RGWIN	Shillig A lee	Ocean City MD

49 Individuals Signed This Letter

TO: MEGAN WARE
Atlantic States Marine Fisheries Commission
mware@asmfc.org

RE: Lobster Draft Addendum XXV Management Alternatives

Dear Ms. Ware:

I am familiar with the Atlantic States Marine Fisheries Commission proposal known as "Lobster Draft Addendum XXV Management Alternatives". There is no doubt that this ill-conceived Regulation, if adopted in any form, would serve to devastate recreational lobstering practices with no appreciable benefit to the waters or the lobster population. The adoption of the Regulation would, however, serve to further unduly restrict the recreational use of our waters by the public.

The adoption of any of the proposed "options" (Option A, Option B, or Option C) would have the same net effect. Recreational lobstering will be restricted to the point of extinction with no concomitant ecological or practical benefit. The proposed significant increase in gauge size, the creation of "closed" seasons, and trap reduction proposals, whether viewed individually or collectively, will destroy recreational lobstering. In addition to the loss of a time-honored recreational activity, the economic impact on such businesses such as scuba dive shops and dive boats will be immeasurable. Hundreds, if not thousands, of families and individuals will suffer enormous economic impact. The damage is incalculable.

Studies have demonstrated that after Superstorm Sandy, lobster populations have been increasing. Recreational lobstering has never been shown to have any appreciable effect whatsoever on juvenile lobster populations, egg production, or other matters which could adversely affect the population. Lobstering is one of the prime attractions to recreational scuba diving in our waters. Removing or further restricting that time-honored and ecologically sound use of our resources is unquestionably contrary to sound fishery management.

I urge you to reject this ill-conceived and inappropriate Regulation.

Thank you for your time and your consideration.

Respectfully,

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 - 5 2017

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

Dear Bob:

Please accept these comments on draft Addendum XXV to the Interstate Fishery Management Plan for American Lobster. This important addendum provides the Atlantic States Marine Fisheries Commission with the opportunity to take necessary and meaningful action to address recruitment failure in the Southern New England (SNE) lobster stock.

Addendum XXV offers the potential to stem the decline in the SNE stock through measures that could reduce fishing mortality and increase egg production. In contrast, it also allows the Board the option to do very little in response to the SNE decline. We know that due to climate and other factors, we cannot rebuild the SNE stock to the levels identified in the Plan; doing nothing, however, should not be an option.

Based on our evaluation of the options presented in the addendum, we support measures that involve gauge increases. The Commission's Lobster Technical Committee has clearly informed the Board that changes to the minimum and maximum gauge sizes offer the best chance of improving egg production in the SNE stock. Gauge changes can be assessed consistently across the fishery, are easily enforced both at sea and dockside, and allow our scientists a means of quantifying the impacts of this measure on egg production. It is the only measure in the document that affords these benefits.

We can also potentially support a seasonal closure if it is well thought out and done in conjunction with a gauge increase. Seasonal closures offer some potential stock benefits if they occur prior to egg extrusion, a period that typically overlaps during the busiest and most lucrative part of the lobster season. Consequently, the economic impacts to the industry associated with lost fishing time, logistics of the removal and storage of gear, and overlapping impacts with other fisheries, make the closures relatively unpopular with the lobster industry. Nevertheless, the Technical Committee has at least commented that properly coordinated seasonal closures could have measurable benefit.

We do not support trap reductions as a stand-alone response to the SNE lobster recruitment failure and have yet to hear a rational basis for doing so. We are not opposed to trap reductions in principle, but are relying on the Technical Committee's assessment that trap reductions will have little to no effect on the addendum's egg production goals. Unfortunately, the Technical

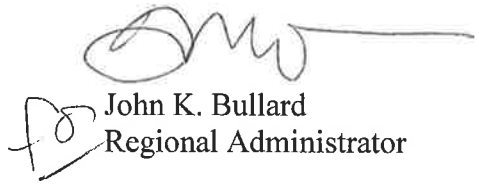
Committee's discussion of trap reductions has been so misunderstood and mischaracterized that it has actually been turned on its head.

The Technical Committee advises that trap reductions are an ineffective tool for increasing egg production. To even attempt to correlate such reductions to egg production, the Technical Committee had to make a series of hypothetical assumptions that do not exist on the water. The chief assumptions were that the reductions were to active trap allocations and these active allocations were permanently removed from the fishery. We know, however, that these assumptions were simply for the purposes of the exercise and did not occur in reality. In fact, we know that trap cuts – such as the Addendum XVIII cuts – involve both active and latent traps, and any active traps that were cut could be easily replaced through the Trap Transfer Program. Data from our Trap Transfer Program show that, in Area 2 for example, about 30 percent of the traps cut during the 2015 and 2016 fishing years were immediately replaced and activated through trap transfers.

If the Board is interested in reducing traps to increase egg production, then consistent with the Technical Committee's advice, those reductions must be active and permanent. To do so, the Board would need to include measures to ensure that the reductions are assessed to active traps, such as proof of active fishing, as well as permanent, such as suspending the Trap Transfer Program and/or reducing the trap caps in the affected management areas.

Thank you for the opportunity to comment on this important action.

Sincerely,



John K. Bullard
Regional Administrator

cc: David Borden, Chair, Lobster Management Board; Megan Ware, Lobster Plan Coordinator

ATLANTIC OFFSHORE LOBSTERMEN'S ASSOCIATION

Grant Moore, President
exec@offshorelobster.org

David Borden, Executive Director
dborden@offshorelobster.org

April 5, 2017

Megan Ware
Atlantic States Marine Fisheries Commission
1050 N. Highland St. Suite 200A-N
Arlington, VA 22201

Dear Megan,

The Atlantic Offshore Lobstermen's Association (AOLA) submits the following comments toward Draft Addendum XXV to the American Lobster Fishery Management Plan. As noted in the Draft Addendum, the principal challenge facing lobster in Southern New England is increased natural mortality, because of climate warming and predation. While we understand that the Lobster Board is committed to responding to the 2015 stock assessment, we urge Board Members to balance increased management with the Addendum's stated goal of "preserving a functional fishery".

As is noted in the Draft Addendum's introductory comments, the SNE fishery has already reduced active permits, active traps, and landings compared to the 1990s peak. Depending on the metric, these reductions range from 42 to 84 percent (Draft Addendum, Tables 2, 3 and 4). Most of this attrition has taken place inshore, in response primarily to resource and economic drivers and secondarily to management measures. In the offshore waters of Area 3, landings have remained relatively stable across the 1982-2012-time series, except for a modest boom in the 1990s (Draft Addendum, Table 6). Anecdotally, in recent years SNE offshore lobstermen report improved catch per unit effort, larger lobsters, and increased abundance of both juveniles and ovigerous females.

We offer the following management option preferences:

Issue 1 – Target Increase in Egg Production: Many AOLA members support "Option A: 0% Increase in Egg Production", citing the following reasons: 1) the primary drivers of the poor stock are climatic and environmental, not fisheries based and 2) the fishery independent data on which the assessment is based come from waters of less than 200 feet, whereas most of the fishery is now conducted in deeper offshore waters (Draft Addendum, Figure 4). Offshore landings have been stable or increasing in the last 10+ years, with the average lobster size well above the minimum gauge; many lobstermen feel past stock problems offshore have been rectified, but the dataset used to inform the stock assessment does not capture rapidly changing conditions.

Recognizing that the Board may feel obligated to act, the Association's preferred action alternative is "Option B: 20% Increase in Egg Production" with a phased implementation of 10% per year for two years. Selecting an egg production target larger than 20% would be contrary to the Addendum's goal of "preserving a functional fishery" by putting marginal fishermen out of business, or forcing relocation to the GOM/GBK stock. Implementing regulation over multiple years will help maintain a viable lobster industry in SNE. Relatedly, the Association supports the use of "Recent Years" to calculate trap reduction impacts on egg production, since this reference period more accurately reflects stock conditions (Draft Addendum, Table 12).

Issue 2 – Management Tools: The Association supports "Option A, Management Tools Can Be Used Independently". This option gives LCMTs and States the most flexibility to select from the analyzed management tools to craft area specific plans that will meet the goals of this Addendum.

Issue 3 – Recreational Fishery: The Association supports "Option A, Recreational Fishery Must Abide by Management Actions Taken in This Addendum". This option is equitable and simplifies rulemaking and enforcement. If this is a stock-wide problem, as espoused by the stock assessment, all user groups in all geographic areas, including commercial traps in every LCMA, recreational traps, recreational diving, and commercial bycatch fisheries, should be held to equivalent standards.

Issue 4 – Season Closures: The Association supports "Option B with Sub-Option B, No Possession of Lobsters While Fishing, Most Restrictive Rule Does Not Apply". Importantly, this option will allow for alternative trap fisheries, which are of increasing importance to SNE fishermen and consistent with the Addendum's intent to preserve a functional SNE fishery. This option also simplifies operational logistics and enforcement. The Most Restrictive Rule should not apply, because in this circumstance it would be discriminatory to treat multi-area permit holders differently than single-area permit holders. It would also be discriminatory to close overlap areas to only a subset of fishermen. Further, we caution that Option C may violate NOAA's National Standard 4 by discriminating based on State residency.

Issue 5 – Uniform Regulations: The Association supports "Option A, Regulations Are Not Uniform Across LCMAs". While we feel there are benefits to standardizing regulations, uniform regulations will disadvantage specific LCMAs. We don't believe standardization should be mandated, nor do we wish to speak to specific regulations for areas other than LCMA 3. The area management process should be allowed to operate without constraint.

Issue 6 – Implementation of Management Measures in LCMA 3: The Association supports "Option A: Maintain LCMA 3 as a Single Area (Status Quo). We appreciate the Board's inclusion of options in the public document targeting regulations to the SNE portion of Area 3 only, however, after considerable discussion, the membership predominately prefers operating under a single set of regulations. We worry that a demarcation line in Area 3 would have unintended consequences for the fishery and permit market. Effort would likely redirect to the GOM/GB stock causing gear conflict and possible increased whale/gear interaction, and the value of permits with SNE only history could depreciate.

Issue 7 - Management Action in De Minimis States: The Association does not have a preference on this issue. However, we caution that an exemption (Option 2) may be in violation of National Standard 4, as it would apply differential regulations in federal waters based on state residency. Option 2 also provides the possibility of conversion of latent effort to active effort in these states.

Other Comments

1. In addition to the ongoing 25% trap allocation reduction and 10% transfer tax conservation, the LCMA 3 fleet proactively reduced traps by close to 30% in the early 2000s (see table, next page). Per the Technical Committee's (TC) analysis, these proactive reductions improved egg production, however they never received management credit. Conversely, other LCMAs have taken more recent action, which will be credited to this Addendum. This is grossly unfair and places more of the conservation burden on the offshore fleet, despite the stock assessment's focus on inshore

populations. We ask that the Board enact policies that ensure all geographic areas and all fisheries contribute equally to egg production targets.

Fishing Year	Traps	% Reduction	Min Gauge	Max Gauge	Vent Size
Historic Participation	211,408	-	-	-	-
2000	211,408	-	3 1/4	n/a	1 15/16
2001	211,408	-	3 9/32	n/a	1 15/16
2002	211,408	-	3 5/16	n/a	1 15/16
2003	187,287	11.4%	3 11/32	n/a	2
2004	180,980	14.4%	3 3/8	n/a	2
2005	175,909	16.8%	3 13/32	n/a	2
2006	172,627	18.3%	3 7/16	n/a	2
2007	169,996	19.6%	3 15/32	n/a	2
2008	155,796	26.3%	3 1/2	7	2
2009	151,901	28.1%	3 1/2	6 7/8	2
2010	148,103	29.9%	3 1/2	6 3/4	2 1/16
2011	145,889	31.0%	3 1/2	6 3/4	2 1/16
2012	146,625	30.6%	3 17/32*	6 3/4	2 1/16
2013	145,569	31.1%	3 17/32*	6 3/4	2 1/16
2014	145,872	31.0%	3 17/32	6 3/4	2 1/16
2015	144,716	31.5%	3 17/32	6 3/4	2 1/16
2016	126,013	41.5%	3 17/32	6 3/4	2 1/16
2017	128,910	39.0%	3 17/32	6 3/4	2 1/16

2003-2010: First round of trap reductions
2011-2017: Per Area 3 qualified permit holder lists per NMFS GARFO staff
2016-2017: Years 1 and 2 of second round of trap reductions + transferability
*Implemented January 1, 2013

2. Recent research by the University of Rhode Island indicates that the vent sizes which have been in place since 2010 release more legal lobsters than calculated by the TC. This research should be reviewed and higher release rates factored into any action by the Commission.

3. The Lobster Board agreed that all user groups should contribute to egg production targets. However, as it stands, only a subset of the management tools would apply to commercial trawl and gillnet fisheries. To apply impacts equitably, we recommend reducing the 100/500 bycatch allowance in proportion with trap fishery effort reductions.

Thank you for the opportunity to comment.

Sincerely,

J. Grant Moore
President

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www.offshorelobster.org

7 April 2017

Dear American Lobster Management Board (Board),

On behalf of the Rhode Island Lobstermen's Association (RILA), I would like to submit these comments on draft Addendum XXV to the management plan for American Lobster. The Board has stated that through this action they would like to maintain a functional portion of this historic Southern New England (SNE) fishery. It is the belief of RILA that in Lobster Management Area 2 (LMA 2), once the final trap cuts from addendum XVIII are implemented, our LMA will be at the minimum size to still be considered a functional portion of the lobster industry. Therefore, we would prefer to see options move forward from this addendum that allow trap reductions to be used as a stand-alone tool.

The trap reductions currently taking place in LMA 2 will have a far more lasting impact on the sustainability of the lobster resource than gauge modifications and seasonal closures. The Lobster Technical Committee (TC) has stated in the past that gauge increases are a temporary delay in mortality and therefore not completely effective. Further, as pointed out by a lobster stock assessment scientist at a recent meeting that I attended, the efficacy of a gauge increase is greatly reduced by the higher natural mortality rate used in the assessment because lobsters are in the water longer before they can be legally harvested by the fishery. This extra time in the water is more time for a lobster to be subjected to predation or even shell disease. To paraphrase that scientist: the earlier that lobsters mature, the slower they grow, and therefore the older they will be at the time that they can enter the fishery (and be caught). That means more time that they are exposed to shell disease and natural mortality. Essentially, increasing the minimum gauge size will not be nearly as effective as one would think. It is also worth pointing out that doing so would vanish the inshore fishery taking place in LMA 2. Once lobsters reach a certain size they migrate offshore beyond the borders of LMA 2 and can be caught by participants in another area. The TC has pointed out in there reports for this addendum that a gauge increase will disproportionally effect inshore areas compared to offshore areas. It hardly seems fair for the lobstermen of one area to be subsidizing another area, especially considering that any more economic losses by LMA 2 fishermen will be the end of their livelihood.

Similar to a gauge increase, seasonal closures are also a temporary delay in mortality. The TC has stated that once the season opens, initially increased catch rates will recoup much of the lost exploitation. Seasonal closures lead to unsafe working conditions for lobstermen in that the fishery becomes derby-style. Vessels and crews will be hastening to ready gear and set traps as early as allowed and as quickly as possible in the spots they deem to be the most productive. In addition, if LMA 2 has a seasonal closure, LMA 3 vessels will still be transiting the area to return to port. This leads to enforcement issues and the potential for lobsters from LMA 2 to still be landed. Lastly, a seasonal closure has the potential to not only affect the harvest of lobster but also the harvest of Jonah crabs. The Jonah crab fishery has supplemented the income of many lobstermen to the point where some exclusively harvest Jonah crabs and only land lobsters as bycatch. A seasonal closure would severely impact the Jonah crab fishery in addition to the lobster fishery. In the end, gear conflicts are increased, safety concerns are not heeded as often,

exploitation is recouped, enforcement complications arise, and the Jonah crab fishery is unnecessarily affected by a seasonal closure. Therefore seasonal closures are an ineffective, complicated, and dangerous tool to be considered for this action.

Trap reductions will be the most effective tool in increasing and sustaining the SNE lobster resource. Once traps are removed from the fishery, it is permanent and the actual ability for traps to be removing any size lobster from the resource is greatly reduced. In LMA 2 there are currently vast open spaces of ocean with no traps for miles. Lobsters are therefore able to feed, mate, and migrate freely over massive areas. This is because there are so few lobstermen and traps remaining that it is impossible to cover the entire area as was done in the 1990s when the SNE lobster resource was at an anomalistic high abundance. This is a benefit of trap reductions that is already taking place with 25% more in trap reductions to be implanted. At the end of the full 50% reduction in LMA 2, these open areas will increase further allowing portions of the lobster resource to experience life history stages unabated.

In reality, the 50% trap reductions that LMA 2 is currently undergoing will result in much more than 50%. The action that initiated the reductions also served to couple the tags from multiple LMAs on multi-LMA permits. For example, a permit that qualified for 800 LMA 2 tags and 500 LMA 3 tags now has those tags from each LMA coupled together. Therefore, if that permit holder wants to sell his 500 LMA 3 tags, then 500 LMA 2 tags go with them. This means that those 500 LMA 2 tags will most likely never be fished in LMA 2 again (due to the high value and small supply of LMA 3 allocation). Also, with every trap transfer, the conservation tax further reduces allocations by 10% on those transfers. The trap allocations from different LMAs being coupled along with the conservation tax mean that the 50% trap reduction in LMA 2 will in fact be substantially higher. In the end, the entire LMA 2 lobster industry will be allocated less traps than Massachusetts recreational fishermen currently have (estimated 55,000 traps). It's not logical that people who depend on lobstering to support their families will have access to less allocation than people who participate in the fishery for fun but that is becoming reality. Not to mention, this also means that the recreational fishery has the capability to potentially put more pressure seasonally on the lobster resource than full time lobstermen.

The TC has conjectured that these trap reductions will be less effective because fishermen will change their trap haul patterns to recoup lost catch from reduced traps. This is simply not true and not possible. The TC is assuming that hypothetically if there were 100 full time lobstermen in LMA 2 all fishing 800 traps, that after the 50% trap cuts there would still be 100 lobstermen but each only fishing 400 traps. The reality is that at the end of the trap reductions, consolidation (which is already happening at a rapid pace) will mean that there will be 50 full time lobstermen each fishing 800 traps. It is impossible for 50 lobstermen fishing 800 traps each to be as effective as 100 lobstermen fishing 400 traps each. Also, bait, fuel, insurance, crew costs, vessel maintenance, and other associated costs increase each year meaning that fishermen in LMA 2 cannot afford to haul their traps more often for reduced catches (on shorter soaks).

RILA would like to support the following Options as they pertain to each Issue contained in draft addendum XXV.

Issue 1. RILA supports option B (20% increase in egg production) only if trap reductions are allowed to be given the full egg production increase credit that they deserve. If trap reductions are not allowed, RILA supports option A (status quo). Choosing an option of more than a 20% egg production increase will serve to do such irreparable economic harm to the lobster industry that it may be reduced to part-time endeavor, putting many, if not all, full time lobstermen out of business.

Issue 2. RILA supports Option A: Management Tools Can Be Used Independently. RILA supports this option for the many reasons contained in the previous portions of these comments.

Issue 3. RILA supports Option A: Recreational Fishery Must Abide by Management Action Taken in Addendum. As stated previously, the recreational lobster fishery in Massachusetts will potentially have more trap tags available to use than the entire LMA 2 and therefore has the potential to exert more pressure than the resource can handle.

Issue 4: RILA does not support Season Closures for reasons stated above pointing to the severe inefficacy and complication nature of them.

Issue 5: RILA supports Option A: Regulations Are Not Uniform Across LCMAs. Each LMA and LCMT was created due to the fact that each area is different and unique and therefore should be managed in a way to suits each LMA and supports the continued existence of a lobster fishery in each LMA.

Issue 6: No comment.

Issue 7: No comment.

I would like to thank you for taking the time to read and consider the comments submitted to you by the Rhode Island Lobstermen's Association. Our hope is that the Board will vote for the Options that allow the most flexibility for effective management of this great and historical fishery that we participate in. Please feel free to contact me with any questions and/or explanations on this subject.

Sincerely,

Gregory J Mataronas

President
Rhode Island Lobstermen's Association
Saklob@aol.com
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MAINE LOBSTER DEALERS' ASSOCIATION
PO Box 1391 | Scarborough, Maine 04070 | (207) 618-7511

April 7, 2017

Megan Ware
Atlantic States Marine Fisheries Commission
1050 N. Highland St. Suite 200 A-N
Arlington, VA 22201

Members of ASMFC,

The Maine Lobster Dealers' Association represents the businesses that handle roughly 80% of the live lobster from Maine. In 2015 (the last year for which we have a complete set of US and ME data), those Maine dealers handled 122.4 million lbs of live lobster harvested from Maine, accounting for 82.8% of the volume of lobster landed in the United States. While 70% of the total US lobster catch is exported, the remaining 33.7 million lbs remains stateside, contributing to the food industry in the United States.

Lobster fits so many different niches in the US food market – boat to plate/farm to table, quality, luxury, fast casual, food trucks and more. It is an iconic product from Maine and the Northeast region in general. The domestic lobster market has changed dramatically in the last five years following unprecedented low prices in 2012, which resulted in a massive expansion of market. Low prices opened a major opportunity for new customers to enter the market at a low price point and therefore at a low risk. Flash forward to 2017, we have seen continued growth in Maine landings and a rise in prices due to the demand. One of the largest domestic markets for restaurant, food service and retail is and always has been the New York and New Jersey region.

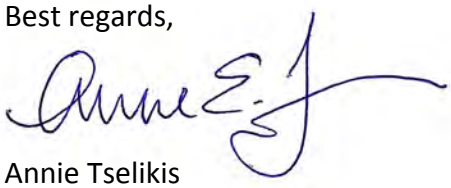
Maine lobstermen fish on a 3 ¼ inch minimum gauge. The existing 3 3/8 inch gauge used in the Southern New England fishery and by the dealer trade in New York and New Jersey already presents a problem. If ASMFC were to implement a 3 ½ size, it would be devastating for Maine dealers and their customers in the region. The potential for ASMFC to violate the interstate commerce clause by implementing this measure is very real. Maine dealers are allowed to possess oversized lobsters but are unable to sell them in the state. Rhode Island and Connecticut have a possession law that allows dealers there to distribute 3 ¼ inch lobsters

within their states. There needs to be an exception for dealers in NY and NJ to possess Maine chix lobster following the RI/CT model.

Our US lobster industry faces major trade challenges this year on an international scale due to a Canada-EU trade agreement that establishes preferential treatment to lobster shipped from Canada to the EU. For the US industry to face an interstate trade obstacle created by our own government agency would be disastrous.

We encourage you to refrain from implementing an gauge size for SNE under Addendum XXV and consider ways to support move fluid interstate commerce in your future management decisions.

Best regards,



Annie Tselikis
Executive Director
annie@mainelobsterdealers.org

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April 6, 2017

Megan Ware
Atlantic States Marine Fisheries Commission Email: mware@asmfc.org
1050 N. Highland St. Suite 200A
N Arlington, VA 22201

RE: Lobster Draft Addendum XXV

On behalf of its 1800 members, the Massachusetts Lobstermen's Association (MLA) respectfully submits our comments and concerns regarding the Lobster Draft Addendum XXV. Many of our members are currently fishing in the Southern New England area and hopefully they can continue to do business within this area.

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 MA Division of Marine Fisheries and the Atlantic States Marine Fisheries (ASMFC) to ensure the continued sustainability and profitability of all the resources in which our fishermen are engaged in.

Issue 1: *Egg production Target*
The MLA supports ***Option A: Option A: 0% Increase in Egg Production***
Area 2 has recently taken a 30% reduction in traps which equates to 15.72% increase in egg production per the Technical Committee review given in August 2016. Once Area 2 completes the 50% reduction in traps already underway, this would achieve a 26.2% increase in egg production overall without any further cuts. Choosing a goal of more than a 20% increase in egg production will significantly impact the ability of lobstermen to stay in business as the cuts will be too severe. Furthermore, there are a limited number of available trap tags that may be transferred within Area 2. The industry has been right sized enough.

During the ASMFC public hearing on March 23rd Area 2 lobstermen voted to utilize the current 50% trap reductions to achieve the minimum option of a 20% increase in egg production by accelerating the remaining trap reductions to 10% per year for the next two years. This would ultimately reduce the number of traps at a faster pace than the prescribed 5% a year for the next 4 years.

Lobster Management Area 2 has the LAST active inshore lobster fishery in SNE. The infrastructure currently in place is a pinnacle component to the local economies they support. Trap builders, bait dealers, fuel trucks and marine supply stores will ALL experience a negative economic impact on their businesses.

Issue 2: *Management Tools*
The MLA supports ***Option A: Management Tools Can Be Used Independently***
This option gives LCMTs and State managers the most flexibility to select from a suite of management tools to be implemented in the prescribed areas with the least amount of impact to the lobster industry.
During the ASMFC public hearing on March 23rd Area 2 lobstermen voted to utilize that trap reductions be the **only** tool used for LMA 2.

Issue 3: Recreational Fishery
The MLA supports ***Option A: Recreational Fishery Must Abide by Management Action Taken in Addendum***
This option is equitable and simplifies rulemaking and enforcement. Given the ongoing environmental changes within the SNE stock area as a whole. Every user group should be answerable and contribute to the rebuilding of the stock whether they are recreational, commercial, divers, or lobster is their bycatch. Everyone must contribute to the rebuilding effort equally and a reduction in traps and or a reduction in landings should be implemented.

Issue 4: Season Closures
The MLA supports ***Option B: No Possession of Lobsters While Fishing: Sub option B:Sub-Option B: Most Restrictive Rule Does Not Apply*** This option will allow the directed fishery on Jonah crabs and whelks to continue, if or when there is a lobster area closure. This option would ban all gear types, including the trawl fleet, from landing lobster as a bycatch during a lobster closure and would further reduce animosity on the water.

Issue 5: Uniform Regulations
The MLA supports ***Option A: Regulations Are Not Uniform Across LCMAs***
While there are benefits to standardizing regulations, we don't believe standardization should be mandated, nor do we wish to speak on regulations for other areas.

Issue 6: Implementation of Management Measures in LCMA 3
The MLA supports "***Option A: Maintain LCMA 3 as a Single Area (Status Quo).***

The MLA agrees with the comments submitted by the Atlantic Offshore Lobstermen's Association *"We appreciate the Board's inclusion of options in the public document targeting regulations to the SNE portion of Area 3 only, however, after considerable discussion, the membership predominately prefers operating under a single set of regulations. We worry that a demarcation line in Area 3 would have unintended consequences for the fishery and permit market. Effort would likely redirect to the GOM/GB stock causing gear conflict and possible increased whale/gear interaction, and the value of permits with SNE only history could depreciate."*

Issue 7: ***Management Action in De Minimis States***

The MLA has no preference on this issue and would defer to the states that are requesting this status.

Other Comments and concerns
We are also extremely concerned about the threshold targeted time series for assessing the overall SNE stock. WHAT is the TARGET threshold for rebuilding the SNE stock? How can any stock be rebuilt to a threshold based upon historic landings and assessments when the water quality and temperature continues to changed in SNE. The human impacts along the coastline continue to introduce pollutants into the ocean through storm drains, septic systems, treatment plants, power plants and the green lawns through use of fertilizers. These ALL contribute the overall decline in health of the ecosystem all fishermen depend upon to earn their living. When will ALL of this be factored into the assessment and threshold models?

The fishing industry continues to be managed using the "Best Available Science" and the unfortunate conundrum here is that the studies currently being done are in 200' of water or less when 80% of the SNE fleet are fishing waters greater than 200'. We are asking the ASMFC to reevaluate the future stock assessment processes for SNE as there are a tremendous amount of variables impacting the SNE stock and the only one facet paying the price is the commercial fishing industry. The MLA recommends the following: remodel when trawl surveys are done i.e., no days with water temperature greater than 70 degrees F, remove Buzzards Bay and Area 6 from future stock assessments and increase ventless trap survey in Area 2 and Area 3.

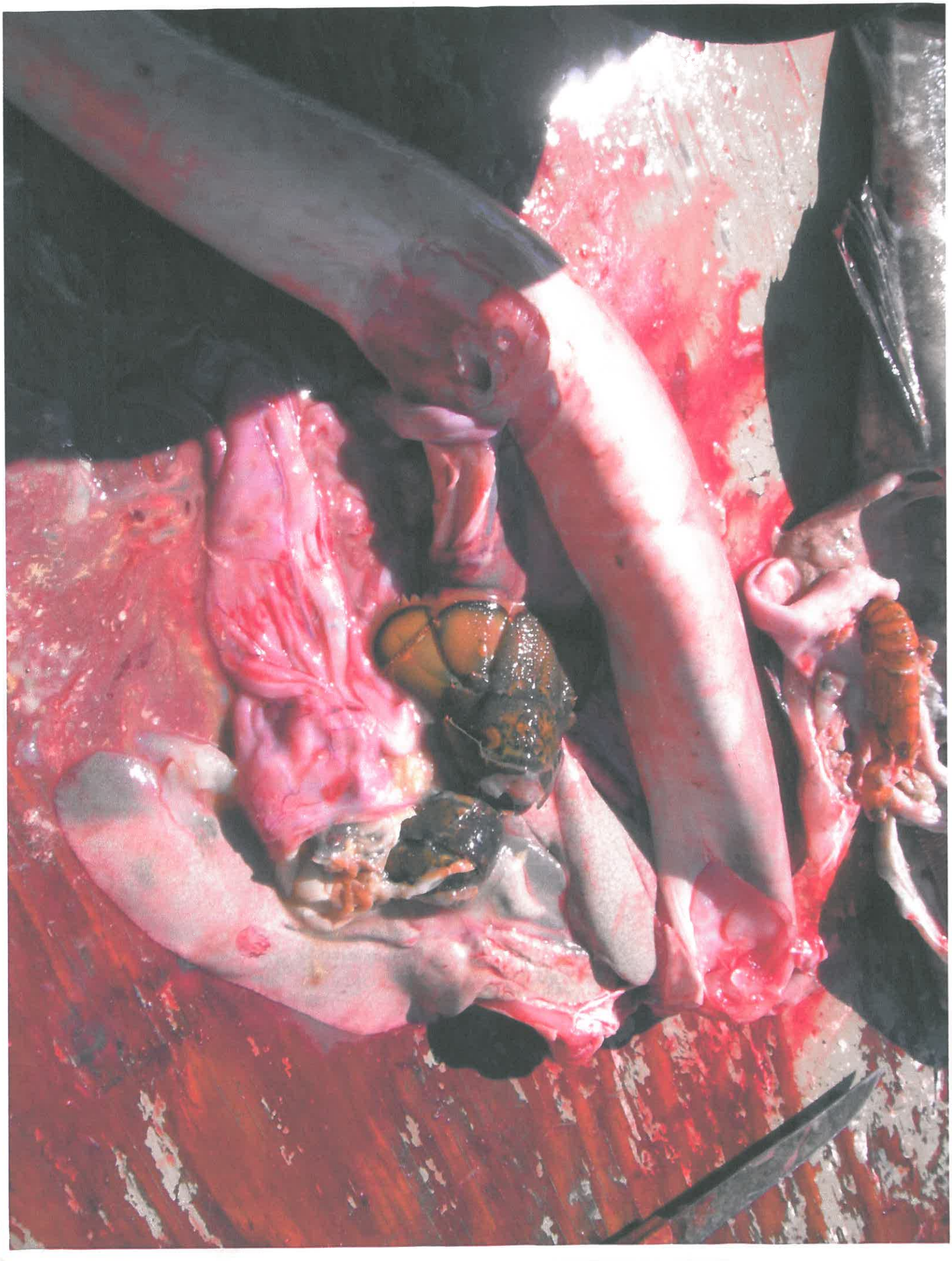
Another unrealistic theory presented in Addendum XXV is that the fishing industry will increase their effort to compensate for the reductions in traps, gauge increases or seasonal closures. This is so untrue given the economics of running a lobster business today. As everything from bait, fuel, gear and other essentials continues to increase it is cost prohibitive to haul the gear more frequently. It is the exact opposite in that fishermen are allowing the post to soak for 3-5 nights. Fishermen are not going to spend their money on changing the water in the pots. Also, in a research paper by D. McKiernan and B. Estrella '89 figure 2, Catch per Trap Haul the optimal soak time for efficiency of a trap is 4-5 days and averages the maximum catch per unit.

We are also concerned that the single species approach for fisheries management is NOT working. The increase in predation in SNE is staggering and the lobster industry is yet again at the bottom of this food chain. When a fishery is managed without consideration to the impacts on another, you have a perfect storm for the imbalance of predator vs. prey just like what SNE is currently enduring now with Sea Bass and Tautog. (See attached photos from Area 2 fishermen)

Lastly, within Addendum XXV there was mentioned, while not considered for this document, the possibility of a quota based fishery for SNE. We do not support any further discussion of a Total Allowable Catch (TAC) system as this would be the final demise of the owner operator, small boat fleet fishery. We ask that this be taken right out of any further documents as ANY option.

Thank you for the opportunity to give comment.

Beth Casoni,
Executive Director,
Massachusetts Lobstermen's Association



April 6, 2017

Megan Ware
Fishery Management Plan Coordinator
1050 N. Highland St, Suite 200 A-N
Arlington, VA 22201

Dear Megan,

The Area 3 Lobster Conservation Management Team met on April 3, 2017 in person at the MADMF office in New Bedford, MA and via conference call.

The following LCMT members were in attendance: Grant Moore – Chair, Peter Brown (phone), Roy Campanale, Marc Palombo, and James Violet. The following additional Area 3 lobstermen were in attendance: Dennis Colbert and Ted McCaffrey (phone). The following support staff were in attendance: David Borden – Atlantic Offshore Lobstermen's Assn. and ASMFC Lobster Board, Dan McKiernan – MADMF and ASMFC Lobster Board, Bob Glenn – MADMF, Tracy Pugh – MADMF and ASMFC Lobster Technical Committee, Stormy Reed – MADMF, Burton Shank – NOAA NMFS NEFSC and ASMFC Lobster Technical Committee, Heidi Henninger – Atlantic Offshore Lobstermen's Assn. (phone). LCMT members Gary Mataronas, Mike Sarapochillo, and Robert Burcaw did not attend, but submitted written comments.

The Area 3 Lobster Conservation Management Team offers the following management preferences by consensus.

Issue 1 – Target Increase in Egg Production: The LCMT supports "Option A: 0% Increase in Egg Production" for LCMA 3. Offshore landings have been stable or increasing in the last 10+ years, with the average lobster size well above the minimum gauge; many lobstermen feel past stock problems offshore have been rectified, but the dataset used to inform the stock assessment does not capture rapidly changing conditions. The LCMT supports status quo in Area 3 until Addendum 26 data improvements are implemented and the 2018 stock assessment in complete.

Should the Board feel obligated to act, the LCMT's preferred action alternative is "Option B: 20% Increase in Egg Production" with a phased implementation of 10% per year for two years. The LCMT urges the Board to consider awarding conservation credit for past, proactive measures by Area 3 lobstermen, including, but not limited to the first round of 30% trap cuts in the 2000s. If credit is not given to these prior efforts an unfair conservation burden will again be shouldered by the offshore fleet, despite the stock assessment's focus on inshore populations. The LCMT strongly feels that Area 3 should not be primarily responsible for improving egg production.

Issue 2 – Management Tools: The LCMT supports "Option A, Management Tools Can Be Used Independently". This option allows for much needed management flexibility to craft area specific plans that will meet the goals of this Addendum.

Issue 3 – Recreational Fishery: The LCMT supports "Option A, Recreational Fishery Must Abide by Management Actions Taken in This Addendum". This option is equitable and simplifies rulemaking

and enforcement. All user groups, including the commercial fishery, recreational traps, recreational diving, and commercial bycatch fisheries, should be held to equivalent standards.

Issue 4 – Season Closures: The LCMT supports "Option B with Sub-Option B, No Possession of Lobsters While Fishing, Most Restrictive Rule Does Not Apply". This option allows for alternative trap fisheries, which are of increasing importance to SNE fishermen and consistent with the Addendum's intent to "preserve a functional SNE fishery". This option also simplifies operational logistics and enforcement. The Most Restrictive Rule should not apply, because in this circumstance it would be discriminatory to treat multi-area permit holders differently than single-area permit holders.

Issue 5 – Uniform Regulations: The LCMT supports "Option A, Regulations Are Not Uniform Across LCMAs". We don't believe standardization should be mandated, nor do we wish to speak to specific regulations for areas other than LCMA 3.

Issue 6 – Implementation of Management Measures in LCMA 3: The LCMT supports "Option A: Maintain LCMA 3 as a Single Area (Status Quo). The LCMT polled much of the active Area 3 fleet and the predominant preference is for equity across the fleet. Further, LCMT members worry that a demarcation line, even if implemented on an annual basis, could trigger redirection of effort into the GOM/GB stock, causing gear conflicts and possible increased interactions with large whales.

Issue 7 - Management Action in De Minimis States: The LCMT does not have a preference on this issue.

Other Comments:

1. The LCMT recommends additional management options be included in Addendum 25, such as mandatory v-notching and credit for conservation achieved via the current vent sizes.
2. This is a data poor fishery, particularly in Area 3 waters. The LCMT supports efforts to develop, for Addendum 26, a wide range of options to improve data collection and fully utilize existing industry datasets.
3. The LCMT is concerned about the disparity between ASMFC's trap cap reduction plan (Addendum 22) and NMFS's static trap cap. The uncertainty regarding future federal rulemaking to address trap cap/transferability provisions previously approved by ASMFC is severely hindering the fleet's ability to make sound business plans.
4. If the Board opts to act to increase egg production, the LCMT recommends that the remaining years (FYs 2017–2020) of ongoing Area 3 trap reductions be accelerated to complete all reductions within the management timeframe outlined in final Addendum 25 language. This includes federal action to resolve the trap cap disparity; to resolve this disparity, the LCMT recommends consideration of a trap cap of 1800, but all permits allocations in excess of the original ASMFC approved trap cap (1548) would be subject to a higher transfer tax.

Sincerely,

J. Grant Moore
LCMT Area 3 Chair

MWARE@ASMFC.ORG

Maryland-Delaware-Virginia
Lobster Conservation Management Team Subcomponent
LCMA5

Chair-Sonny Gwin — Vice-Chair-Wes Townsend

17 March 2017

Dear Ms. Megan Ware,

Thank you for presenting the information concerning Draft Addendum XXV to the group yesterday. Please ensure this letter is received by the ASMFC American Lobster Board.

We conducted our first official meeting to establish our Lobster Conservation Management Team (LCMT) for LCMA5. As you know, LCMA5 is large, consisting of five states along the coast. It has been difficult to organize all the states of North Carolina, Virginia, Maryland, Delaware and New Jersey under a single LCMT. North Carolina does not occupy an ASMFC American Lobster Board position and may never be included in our LCMT. It is our intent to have the New Jersey LCMA5 lobstermen join with us; however, it is our desire to have LCMA5 redefined from the Delaware Bay south and only include Delaware, Maryland, Virginia and North Carolina. Ultimately our goal is to investigate a path to define a Mid-Atlantic Lobster Stock if possible. We feel that the problem in the Southern New England Lobster Stock is occurring north of the Delaware Bay. Moreover, we suspect that the decline in the lobster population in Long Island Sound has occurred due to pollution and runoff of chemicals such as insecticides. It is also disturbing to us that your worthy goal to have as many viable eggs in the water to rebound the stock has no certainty of success unless the water temperatures declines.

To address the immediate concerns in Draft Addendum XXV by issue, below is our response:

Issue 1. Target Increase in Egg Production.
Option A: 0% Increase in Egg Production (Status Quo) is our selection. If the lobster population is susceptible to global warming, then we should take action along the entire coast. Moreover, we decided the problem in the vicinity of Long Island Sound should be addressed alone by management measures. Our fishery has been stable for many years and more cuts in our lobster and Jonah crab resource will destroy our historical fisheries and economy.

Issue 2. Management Tools.
This option should be voted on by the board after other options are decided, especially after Issue 5-Uniform Regulations. To clarify, while we don't want cuts in the harvest, we decided that the gauge outcomes have the best certainty for success. We want to fix this situation and move forward. Trap reductions are unequable in this area and a closed season in a tourist beach town (Ocean City) will destroy our market. **Gauge changes over a two-year time period specified in Table 11 should be the only consideration by the board;** therefore, Option C is the only provision that requires gauge changes. However, if the board would ensure that Issue 5 is deleted from the document and that the status quo continues, we don't have a problem with other LCMAs utilizing various management tools available. **Bottom line is we don't want to abide to the rules of a more politically influential LCMA, such as LCMA4.**

Issue 3. Recreational Fishery.
The recreational fishery is limited to scuba divers in our area. **We decided that Option B (status quo) should continue.**

Issue 4. Season Closures.
In case of a season closure, we decided that **Option C: Limit of Non-Trap Bycatch Fisheries and Sub-Option B: Most Restrictive Rule Does Not Apply** will provide for some lobster catch and sustain the local market at a small level. This will also allow for our Jonah crab fishery to offset the cuts made by the lobster gauge change. The Jonah crab fishery must be able to continue during a closed lobster season.

Issue 5. Uniform Regulations.
This fishery is complex and confounded by many rules that occur along the coast. The LCMAs are what we have right now. The idea to combine us with LCMA4 is unacceptable. The grouping of all LCMAs together for identical management measures should have occurred a long time ago and included LCMA3. We decided that if New Jersey and its lobsterman have a solution that works for them, allow for the immediate consideration of a line drawn separating the LCMA5 at the vicinity of the Delaware Bay. LCMA3 is being considered for new boundaries and so should LCMA5. Right now, as it stands, we support **Option A: Regulations Are Not Uniform Across LCMAs (Status Quo)** because we cannot support a summer season closure. That will be the same as a moratorium.

Issue 6. Implementation of Management Measures in LCMA3.
We withhold our decision at this time on this issue.

Issue 7. Management Action in De Minimis States.
Option 2, De Minimis States Exempt from Provisions of Addendum XXV is our selection. However, the majority of our lobsters are caught in federal waters. We ask for consideration to expand on this issue to include federal waters. Moreover, this issue further exposes the problem with the current construct of LCMA5. All the states below the Delaware Bay are de minimus, but New Jersey is not. A potential federal rule that reshapes LCMA5 or better, the creation of a new LCMA south of New Jersey could set conditions for a de minimis LCMA. Delaware, Maryland, Virginia and North Carolina could be capped at a combined quota of 160,000 pounds and managed as a region. This would be a time sensitive rule, so when lobster abundance increases, the region could have the option to ask the board to no longer be classified as de minimis.

Thank you.

Sincerely,

Sonny Gwin
Chet Townsend
Kerry Harrington
Roger Wooleyhan

Shah Amir
Chester Townsend
Tom Smith

Maryland-Delaware-Virginia
Lobster Conservation Management Team Subcomponent
LCMA5

Chair-Sonny Gwin — Vice-Chair-Wes Townsend

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MWARE @ ASMFC.ORG
703 842 0741

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Thank you.

Sincerely,

Sonny Gwin
Chet Townsend
Kerry Harrington
Roger Wooleyhan

Shah Amir
Chester Townsend
Tom Smith

17103 SNELL BRIDGE RD
2 PAINTER VIRGINIA
23420

NEW JERSEY COUNCIL OF DIVING CLUBS

32 Stratford Road
Tinton Falls, NJ 07724-3143
www.scubanj.org

TESTIMONY

DRAFT LOBSTER ADDENDUM XXV

The NJCDC is an organization of 14 sport diving clubs in New Jersey and nearby states. Sport divers can actually observe the underwater environment and can sometimes note things that perhaps others cannot. Lobster is the most important basis for the sport diver fishery, and not being able to take this quarry would be a serious blow to the sport. There are at least 28 dive shops, about 10 commercial dive boats, many private dive boats, and an expensive equipment industry that supports the sport. This is estimated to be an industry worth maybe 200 million dollars in NJ alone and generates significant tax revenue for the state.

Regarding (Issue One), Target for Egg production the NJCDC believes that should be kept realistically low. A 60% target is likely to shut down both the commercial and recreational fishery for lobster in what you refer to as the Southern New England Stock (actually includes both SNE and the Mid Atlantic). Last year I observed in 60 plus ft of water off NJ more lobster then I have in many years. Later in the summer almost every lobster pulled out of holes had eggs. A lot of lobsters were larger and obviously had migrated in from the canyons or LCMA 3. Remember the canyons are now protected from bottom tending gear due to Mid Atlantic Coral protections. Although warming waters may be impacting shallow water, there is still a viable fishery in deeper water and no one in this area believes that lobster all the way from the Lower Cape Cod to NC are being affected in the deeper water.

A target of 0 (status quo) to 20% would be realistic, and would allow pot fishermen in Area 4 & 5 to stay somewhat competitive with their northern New England competition that has a much smaller carapace size advantage. Higher targets are likely to destroy the fishery. The pot fishery in SNE has already endured several conservation steps that puts it at a disadvantage to Northern New England.

Regarding Issue Two (Management Tools), the NJCDC would be in favor of the most flexibility afforded, which probably is reflected in Option A (Management Tools can be Used Independently). For example, the NJCDC is not in favor of dictating closed seasons that are not necessary to achieve a target and could result in forced diving for lobster during more dangerous weather seasons.

Regarding Issue Three (Recreational Fishery), the NJCDC would be in favor of Option C (Recreational Fishery Must Abide by Gauge Size Changes). The recreational fishery has previously abided by both gauge size and seasonal closures. However, on page 18, the Addendum seems to be pushing a 3 month closure during the summer months. Sport diving in the Atlantic Ocean is very much dependent on calm winds and favorable weather. The summer months tend to be the best weather and a 3 month summer closure would push lobster diving into seasons that are not so calm, posing a danger and safety issue for sport divers. None of the previous closures in this area have involved the summer months. Although a summer closure could achieve a TC stated 21.6 % increase in egg production, a spring closure could achieve a 15% increase (TC memo to Lobster Board dated 10/14/16) which is almost as much and wouldn't impact the diving season as badly. The NJCDC prefers no seasonal closure since gauge changes could achieve a much larger (60%) increase in egg production anyway!

Remember, the recreational fishery only accounts for a tiny 1 or 2% of the lobster catch in SNE. The other 98% are taken by the commercial fishery via traps, trawls, etc., and forcing a summer closure on the recreational fishery is not justified.

Issue Four (Season Closure) options appear to only impact the commercial fishery and the NJCDC main concern is the Recreational Fishery. However, the commercial trap fishery in what you refer to as SNE is being hit by conditions they did not cause and if any season closure is selected, it should say the most restrictive rule does not apply! That would definitely give the pot fishermen a better chance of survival, and I believe the stated purpose was to allow the fishery to survive in SNE.

Regarding Issue Five (Uniform Regulation), generally speaking the NJCDC would be against forcing regulation in say Long Island Sound (Area 6) to be the same as the ocean that has deeper and cooler ocean waters. However, there is a problem in New Jersey with a hypothetical line drawn in the ocean from east to west just above Barnegat Inlet separating Area 4 and 5. These areas have different closure dates at present. That creates confusion in the recreational lobster fishery and enforcement problems for the state. The difference came about only because of LCMA Area 4 commercial lobster fishery going above its quota during one year. Uniform regulation between Area 4 and 5 would benefit New Jersey. Issue 3, Option C may also solve this problem, but only for the recreational fishery.

Regarding Issue Six (Implementation of Management Measures in LCMA 3), the NJCDC would favor Option A (Status Quo). The problem is warming shallow water in Lower Cape Cod, RI and Conn., something that happened in NJ a number of years ago. LCMA 3 is not shallow or warm water and doesn't really have a lobster problem! In fact, many of the lobsters we see in 60 plus ft of water off NJ have migrated in from LCMA 3. Any of the other options under Issue Six would just create confusion and be unfair to current permit holders. What really might increase egg production in Area 3 would be to bring down the maximum carapace length from 6 and ¾ to a more reasonable length (maybe 6 inches). My understanding is that the large females are supposed to be the most prolific eggers?

Issue Seven (Management Action in De Minimis States), should make it clear it is only referring to the commercial fishery, and not the recreational fishery.

Regarding predation (not addressed in Addendum 25), a significant predation reduction could be achieved by allowing an increased quota on Dogfish. At times, divers observe large schools of dogfish around wrecks and artificial reefs off NJ. Black Sea Bass is another predation factor for young lobsters.

In conclusion, the recreational fishery can live with a reasonable increase in the minimum carapace. A summer closure would be devastating to the recreational fishery and would lead to a safety issue. It would also lead to closed dive shops and putting commercial dive boats out of business.

If environmental factors are causing the reduced landing in the shallow waters of SNE, then there will be reduced landing and no attempt at increasing egg production is likely to have much of an impact or bring lobster back to shallow water. Our take on the situation is that the lobster fishery is viable in the deeper (60 plus ft) and cooler waters off the Atlantic coast. Last year sport divers saw a lot of lobsters and a lot of eggers off the Jersey coast on the wrecks and artificial reefs. The NJCDC is adamantly against any 3 month summer closure!

Respectfully,

Jack Fullmer, Legislative Committee
AP member - Recreational Adviser

jf2983182@msn.com

FOOD INDUSTRY ALLIANCE OF NEW YORK STATE, INC.
130 Washington Avenue • Albany, NY 12210 • Tel (518) 434-1900 • Fax (518) 434-9962
Government Relations (518) 434-1915

March 30, 2017

Megan Ware **VIA Email**
Atlantic States Marine Fisheries Commission
1050 N. Highland St. Suite 200A-N
Arlington, VA 22201

Re: Draft Addendum XXV to Amendment 3 to the American Lobster Fishery Management Plan

Dear Ms. Ware:

I am writing to submit comments on behalf of the Food Industry Alliance of New York State, Inc. (FIA) to the Draft Addendum XXV.

FIA is a statewide not-for-profit trade association representing the interest of New York's 21,000 food stores. Our membership includes a multistate chain stores, independent grocers as well as wholesalers, cooperatives and distributors.

Although we recognize the importance of adopting regulations to promote sustainability in harvesting wild animals like lobsters, we would like to express our concern that Draft Addendum XXV, in its current state, will have a severe negative impact on lobster sales in New York and beyond. Historically, the vast majority of lobsters sold in retail stores and restaurants throughout New York, Rhode Island and Connecticut are in the 1-1.25 lb. range. The proposed increase in the minimum carapace length would eliminate this preferred sized lobster to the consumers of those states. We have received communication from wholesalers and harvesters who supply lobsters (from outside of New York) that another increase in minimum carapace length would have a drastic impact on the lobster industry as a whole (an industry that represents over 10% of Maine's GDP). The proposed regulations would further complicate the existing mandate of selling different sized lobsters into the New York market.

In that we believe that planning for sustainability is an important and necessary goal, we suggest that there are some viable alternatives to the proposed efforts to increase the lobster egg production. An alternative to the proposal could be a decrease in the maximum carapace length or the implementation of more stringent v-notching regulations in effort to increase egg production. Placing restrictions on a 5 inch maximum carapace would bring southern New England in line with Maine regulations and would conserve large males and females who have been shown to produce more fertile eggs. Mandatory "V-Notching" has been proven as an effective conservation method. Recent research from the University of Maine has shown that the current decline in the lobster population could have been assuaged if southern New England lobstermen had adopted v-notching 20 years ago. The implementation of the aforementioned alternative measures could replace the proposed increase in the minimum carapace

size. These measures would also help streamline lobster sale & possession policies across state borders.

In conclusion, we support the continued efforts of the ASMFC and the objective of this communication is to reveal potential challenges that the Draft Addendum XXV would create for the retail, wholesale and lobster industries. If the addendum is ratified, we would like to work with ASMFC as well as the New York DEC in passing an amendment, allowing the possession of smaller, legally harvested lobsters to be distributed (but not sold) in the state of New York. Many lobster suppliers are willing to work with the ASMFC and DEM to set up a traceability programs to ensure that lobsters harvested legally in other states could be sold in New York without violating Draft Addendum XXV.

Thank you for considering our comments.

Respectfully submitted,

Michael E. Rosen
President & CEO

Congress of the United States

Washington, DC 20510

April 7, 2017

Atlantic States Marine Fisheries Commission
Attn: Megan Ware
1050 N. Highland Street Suite 200A-N
Arlington, VA 22201

To Whom it May Concern,

We write regarding the "Draft Addendum XXV to Amendment 3 to the American Lobster Fishery Management Plan." As the Atlantic States Marine Fisheries Commission (ASMFC) moves to finalize a new lobster management plan for the Southern New England stock, we urge you to conduct a thorough scientific review that assesses all factors that could contribute to the status of the stock and an economic impact analysis that evaluates the effects of the plan on the Connecticut fishing industry. Furthermore, we request that ASMFC refrain from finalizing any plans before reviewing new data, such as landings data from 2016, which is currently scheduled for release after the new management plan is finalized. Finally, we urge you closely consider the opinions of all who work in this important industry.

As elected representatives for the State of Connecticut, we see firsthand that the health of Long Island Sound and the bounty of marine life that call it home directly affect the long-term sustainability of our fishing industry. Stock assessments from 2000 to 2015 by ASMFC illustrated the dramatic decline in Connecticut's lobster population. These findings brought about new management measures for Connecticut lobstermen to implement. For example, in 2013 the states of New York and Connecticut, in conjunction with the ASMFC, enacted a fall harvest closure.

While we understand the goal of updating the current lobster management plan to rebuild the lobster stock, the effect of these measures on the current Connecticut fishermen must be thoroughly considered before you take any action. Thus, we believe an economic impact assessment on Connecticut fishermen should be a vital component of the analysis done to finalize a new management strategy.

We are concerned that new and relevant data will become available after the plan is finalized. While landings data is only part of the picture, landings data is an important component in understanding how this management plan will effect Connecticut lobstermen. Connecticut lobstermen feel that 2016 was a relatively strong year for the lobster fishery and that stocks were more bountiful. The new landings data will provide important, up-to-date information on this trend and we believe this is relevant information for making a management decision. We urge you to consider this data before you make your decision.

Sincerely,

CHRISTOPHER S. MURPHY
United States Senate

RICHARD BLUMENTHAL
United States Senate

JOE COURTNEY
Member of Congress

ROSA DELAURO
Member of Congress

JIM HIMES
Member of Congress

SENATOR HEATHER SOMERS
EIGHTEENTH DISTRICT

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State of Connecticut
SENATE

SENATE REPUBLICAN MAJORITY WHIP

CO-CHAIR
PUBLIC HEALTH COMMITTEE

VICE-CHAIR
EDUCATION COMMITTEE
ENVIRONMENT COMMITTEE
HIGHER EDUCATION & EMPLOYMENT COMMITTEE

MEMBER
APPROPRIATIONS COMMITTEE

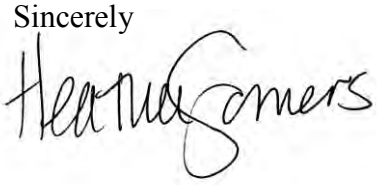
April 6, 2017

Megan Ware
Atlantic States Marine Fisheries Commission
1050 N. Highland St. Suite 200A-N
Arlington VA 22201

Subject: Lobster Draft Addendum XXV

I am writing to express my extreme concerns of the implementation of the above referenced Draft Addendum XXV. The proposed changes will devastate and virtually eliminate what is left remaining of the Southeastern CT Lobster Industry. I urge the Commission to vote for "status quo" or "no" to the implementation of this document and respectfully request an economic impact study be performed to assess the true impact to the Lobstermen in Connecticut.

Sincerely



Heather Somers
State Senator-18th District(CT)
(Groton, Voluntown, Griswold, Sterling, North Stonington, Preston, Stonington, Plainfield)

The Commonwealth of Massachusetts
House of Representatives
State House, Boston 02133-1054

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REPRESENTATIVE
10TH BRISTOL DISTRICT
ROOM 134
TEL: (617) 722-2400

DISTRICT OFFICE
Tel: (508) 992-1260
William.Straus@MAhouse.gov

COMMITTEE
Chairman
Transportation

April 7, 2017

Ms. Megan Ware
Atlantic States Marine Fisheries Commission
1050 N. Highland Street, Suite 200A-N
Arlington, VA 22201

Re: Draft Addendum XXV to Amendment 3 to the American Lobster Fishery Management Plan

Dear Ms. Ware:

I would like to go on record as strongly opposing implementation of any of the measures being considered in connection with Draft Addendum XXV to Amendment 3 to the American Lobster Fishery Management Program.

Though I certainly do not object to continued monitoring of stock status in Southern New England, the data at issue does not justify adoption of further restrictions, especially when balanced against the disproportionate impact these measures will have on SNE lobstermen, and Massachusetts lobstermen in particular.

Accordingly, given that we are not yet 4 years removed from the last round of controls and limitations, I urge the Commission to act in favor of maintaining the status quo pending the accumulation of additional information concerning lobster recruitment in SNE.

Sincerely,

Representative William M. Straus
10th Bristol District

RECEIVED

APR 0 3 2017

ASMFC

March 27, 2017

To: ASMFC – Meghan Ware

An individual fisherman in the state of Massachusetts has no voice. If the state has one vote in laws passed by a government agency made of board members from multiple states, the individual fisherman rights have been undermined by an agency of bureaucrats. A bureaucrat is an official who works by fixed routine without exercising intelligent judgement. I believe this is an unconstitutional way of governing the fisherman. The voting that went on at the meeting on the 23rd of March 2017 was just for show. Bob Glen the Massachusetts state marine biologist that also works on the board of a government agency. Is this not a conflict of interest? Once again who is representing the fishermen? This board is a criminal enterprise. The fishermen have no tools to defend our liberties. Let's be honest management plans, management actions and management tools are all new regulations all proposed by the "board". Many questions were asked at the meeting some were answered by Meghan Ware in her response was "that's up to the board to make that decision". Really? The vote or laws the board passes empowers themselves, for example the trap allocation program. Lobstermen could decide on a trap limit amongst themselves to combine fishing permits no more than two per vessel that would allow them to fish 800 traps provided both permits are aboard that vessel. This avoids a great deal of bureaucracy and can be enforced very easily.

An executive order was sent to all government agencies by our newly elected president. No new regulations unless two are disposed of. Is this board going to violate an executive order and should lobstermen have to comply to any new regulations passed by the ASMFC?

An organization save our sound was set up to stop the wind power project in Nantucket Sound. They were very successful and the MLA supported this organization. I am afraid it is possible that the project has been moved to area 2 offshore waters. The new regulations could be possibly used as a tool to promote this wind project, after all the government is going to lease our fishing waters to these wind power projects "DONG". I believe there is a conspiracy to put the lobstermen in area 2 in a crisis. This is a real possibility. I would hate to think this is a reality but it is possible. There are also sadistic regulations being put into effect of the draggers in area 2 (southern New England).

The number one problem our lobster fishery is facing is chemical treatment plants especially Buzzards Bay. Buzzards Bay is a Bay and has less exposure to open water it also has a

warmer temperature compared to the North Shore area 1. We do not have an over fishing problem at this time but an over regulating problem. The EPA mandates a chemical formula to the states that destroys our marine environment. Sodium Hypochlorite and Sodium Bisulfate are being pumped into Buzzards Bay 24/7. In 1996 the chemical treatment plant at Fort Rodman in New Bedford, MA was activated. Lobsters had peaked in 1997 and every year after have dimished to the point of at least a 70% loss. The first shell rot was detected in 1998 in Buzzards Bay. The lobsters have lost their cycle of molting. The state should be and reversing this cycle instead of putting lobstermen out of business. These treatment plants have turned our bays and harbors into a swimming pool. The marine environment has collapsed. The food chain for the lobsters has been destroyed this cycle can be changed. A two-part solution needs to be implemented immediately. The state said ten years ago, that the treatment plants have a delusion factor. The delusion factor has now expanded into federal waters in my opinion.

The first congress ever to meet after signing our bill of rights in July of 1776 by the colonies was there concern especially Massachusetts. It was that a central government would take away their fishing rights. Thomas Paine had to assure the colonies that the states would have the rights to protect their fishermen. Rhode Island was one of the last states to sign on to the constitution. Life, Liberty, and the Pursuit of Happiness are our rights. The board wants more of our liberties once again. I can only hope changes are on the horizon.

Fishing was the number one industry in New England. The jobs in trade have been lost it is very sad. It can be restored with good management plan and management action but not by ASMFC. Their funding should be cut and used in restoring our marine environment for future generations. God Bless America and all the fishermen who have been treated like second class citizens.

U.S. Army 1975-1982
38 years of lobstering
David J. Bolton Jr.
F/V Honi-Do 582814
508-965-5467

USMC 1984 - 1988
F/V JARheard
Ronald M Linhares
20 yrs. Fishing

Paul H. Mayhew
Warner Jason (Freedom)
(52 years fishing)

40 plus years fishing industry.
Gratitude 35 years

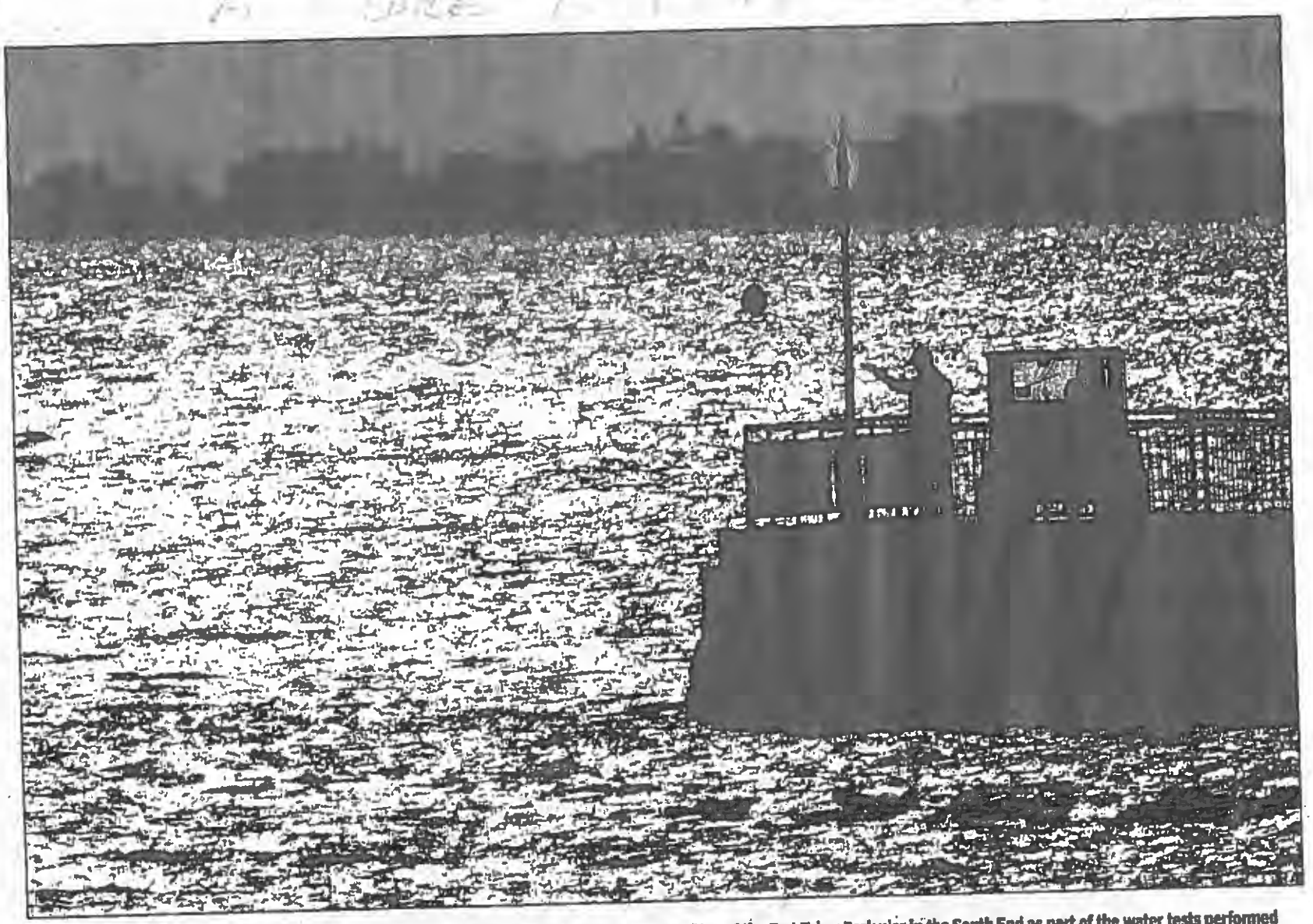
Marshall Carroll Menemsha Texaco
Paul McDonald Paul McDonald F/V Sheerwater Menemsha, MA

[illegible] C+P Bait inc
[illegible] C+P BAIT INC.

Steven Cortez C+P Bait Inc.
John Oliveira CAP - BROADBILL
JOHN J OLIVEIRA
CHRIS STOWELL F/V JIM DANDY 20+YEARS FISHING
Fred Stowell F/V JIM DANDY 47 YRS
Edward Williams Hercules 35+ yrs.
[illegible] Fishermen 2 Town

Arthur DeCosta F/V Sherri & Deke
James [illegible] James Bradshaw
[illegible] F/V Christine
F/V Never Enough
[illegible] F/V Intimidator

Fishing for data



A New Bedford Wastewater Treatment Plant technician casts a water collection device over the edge of the Fort Taber Park pier in the South End as part of the water tests performed once per quarter. [PETER PEREIRA/THE STANDARD-TIMES/SCMG]

Megan Ware
Atlantic States Marine Fisheries Commission
1050 N. Highland Street, Suite 200A
North Arlington, VA 22201

Date: 3/27/2016

Re: Lobster Draft Addendum XXV

Dear ASMFC:

We the undersigned active Commercial Area 2 Lobster Fishermen recommend that Option A which we understand to be a status quo option be maintained in regards to regulations affecting the Area 2 Southern New England Lobster Stocks for the following reasons.

1. As your data indicates, the harvest of lobsters in Massachusetts waters show a steady increase in landings. The landings report indicates a 50% increase in landings from the 513,222 pounds in 2011 to 769,305 pounds in 2015. This does not take into account the 2016 landings which are not yet available, but are believed to be even better. There are anecdotal reports from lobstermen, even in Long Island Sound, seeing a large increase in 2016 landings.

2. Your data and analysis is based on data collected through 2014 which means the positive landings of 2015 and probably 2016 are not taken into account.

3. Area 2 has a 50% trap reduction underway for all trap fishermen. The first reduction of 25% started in 2016 with annual reduction of an additional 5% per year over the next 5 years. None of these reductions are being considered in the new proposed need for further management reductions. In your Draft Addendum XXV, you site the trap reductions will not achieve the necessary effort reductions because the lobster fishermen will simply haul their traps more frequently. We would challenge this premise as being totally false. Lobster trap fishermen time the haul of their traps when the optimum amount of lobsters are in the traps. This optimum hauling time varies by specific area, time of year, water temperature, type of bait, etc. Hauling a trap too soon results in very low landings. Hauling after too long leads to some mortality and more culls, which reduced the catch value. This optimal Haul period could vary anywhere from 3 to 10 days.

4. The ASMFC states a need to protect the egged female lobsters from stress and site the hauling process and handling of these lobsters as a concern. Lobster trap fishermen tend to chase lobsters and have found that if they stay on the lead of the herd they primarily catch male lobsters, not egged females. If stress is a consideration for these egged females, we suggest you

study the stress factors of other gear types, which include mobile gear and fixed gill nets. Both of these gear types are prohibited in the highly successful lobster fisheries of Canadian and Maine.

5. Finally, the ASMFC proposes a seasonal closure which would take place during the summer months of July and August. We would like to remind the ASMFC that this is the time when Area 2 Lobstermen get the highest amount for their catch, it is prime tourist season and we can land hard shell lobsters prior to the fall shed.

Lobstermen	Lobster Boat Name	Home Port
David Demski	Roundabout	Fairhaven Ma.
Tony PRIBASH	FISH N CHIPS	Buzzards Bay MA.
DAVID GRACE	CEE-DEE	WESTPORT MA
KEVIN MELCO	OCEAN HUNTER	WESTPORT. MA
ALAN DEAN	Kim + Jake	WESTPORT MA
JOHN KWIC	NONNIE BABS	DENNIS, MA
Alex Brewster	Perseverance	Westport, MA
John McDonald	Norma M	Bristol, RI
David J Bolton Jr.	F.V. Honi-Do	New Bedford
KARL DRAKE	ICEMAN	MARION
George Pierce	No Name	Westport
DAVID TAHTINEN	ROBINS RIVAL	MARION
Tom Tomkiewicz	Intimidator	Fairhaven
Arthur DeCosta	Sherri & Deke	Fairhaven
Mark Leach	f/v SeaHolly	Harwich
Sean Leach	f/v SeaHolly	Harwich

Lobster Addendum XXV Response

Andrew Bonetti

Red Gill Fisheries SP

Good day,

I am writing this today in response to the Lobster XXV Addendum that I recently heard that was passed down by the ASMFC in regards to next steps that are on the table for managing the lobster stocks we have here in Southern New England.

After reading the case study, I understand that the main situation that you say we are seeing now is the decrease in baby lobster recruitment, which is at dangerously low levels. In essence, your findings are saying that "if fishermen don't put in proper management tools, then the lobster population will eventually collapse." This is a serious and bold claim to make, and I would say that most fishermen and conservationists are on the same side, because we both want to see the lobster population do well for us and future generations alike.

Although there are many disagreements to be had between the commercial fishing and scientific community, the main issue in all fisheries conversation seems to be the lack of hands on knowledge that the scientific community expresses, and the commercial fishing community not having the degree of scientific knowledge that policymakers present data with. Because of this, it creates a gap in the conversation, where both sides remain divided because it's a "Doer's vs Thinkers" argument.

Being that the Long Island Sound is 1,300 square miles, with an average depth of 63ft, while holding 18 trillion gallons of water, I believe it would be silly to say that someone could know EVERYTHING about what goes on in it simply because they hold the proper credentials. The sound is a constantly changing environment that both reacts to and impacts us based on what we do on and off the water as a collective majority.

With that being said, one of the biggest subjects you mentioned in the beginning of the addendum was the issue of climate change and how it's changing our seas. I couldn't agree more with this, as one of the most common examples we've all personally seen is the influx of Black Sea Bass and Scup populations in our sound, which share rocky bottom structure with lobsters and other native species. I notice that most of the traps we set and pull come back with more sea bass & scup than they do lobsters...Seeing as Black Sea Bass & Scup are predators, I wonder if the disappearance of baby lobsters has something to do with the increasing population of these predatory species into our waters?

And this might be a stretch, but since these fish are coming here because of forces we cannot directly control (global warming), I wonder how much longer the lobster fishery can realistically survive into the future here, based on the assumption that someday it will just be too warm for lobsters to be a possibility.

One concern that I have with your assessment is that there is no mention of how you completed these studies to solidify your claims. Since there's no parameters explained on how you conducted your research, it makes me wonder if you ever ventured onto a down east lobster boat during the study to

see what comes up in the traps us fishermen pull on a daily basis. To hear the statement that the lobster population is "about to collapse", to me is surprising and makes no sense, because the amount of lobster we throw back from our traps that are either... eggers, or undersized totals to about throwing ½ of what we catch back into the sound. From personal experience, I'd argue that we are seeing the OPPOSITE in what you are saying, in that the stock of small growing lobsters in the sound is huge, while the availability of legal sized lobsters seems to be small and getting smaller as more regulation is added to this industry.

The last few things I want to comment on pertain to the political environment of the situation we see here expressed today, and possible solutions I see to solve those problems.... I know I'm not alone in saying this, but the governance of the commercial fishing industry in America needs a drastic overhaul. As I look around the corporate structure of government agencies, I see nothing but suits who have no real personal experience in what they are regulating, but are trusted in making the decisions for the hardworking American families scrambling to make an honest day's pay. I believe that a different process for validating regulations needs to be established with both the fishermen and policymakers sitting at the same table to negotiate terms to find reasonable compromises for everyone.

I think what I'm trying to say is that we need options. I'd love nothing more than to vote and have discussions about the things that we all want to see done, but if the management structure in this sector remains in this top-bottom fashion, we won't ever get anything truly accomplished, and what will suffer is the health of our fisheries. Now more than ever, we all need to pull together for the most important objective which is the development and continuation of the resource for us and the many generations after us to pursue like we have the option to do so now. Anything accomplished less than that, is a waste of our time, but the only way we can do this, is through fair & equal representation & discussion.

Regards,

Andrew Bonetti

Red Gill Fisheries SP

Date: March 25, 2017

To: Megan Ware – ASMFC

From: Robert Sloane – Area 2 Lobsterman

Subject: Lobster Draft Addendum XXV

The following comments are in response to the proposed regulations under Lobster Draft Addendum XXV to increase egg production in Area 2. I have actively lobstered in Area 2 since 1982 in both Massachusetts and Federal waters.

1. Based on my 2016 catch, there is anecdotal evidence that the decline in lobster abundance may have stabilized or perhaps increased. It definitely did not decline versus 2015.
2. The 50% trap reduction measure has not been adequately factored in as an increased egg production measure. While it largely affects latent effort in the fishery, it has caused some active lobstermen to cease fishing due to the cost of acquiring an additional license to maintain the number of traps they normally fish.
3. If any additional measures are required to increase egg production, I would suggest accelerating the trap reduction measure already in place to achieve the 50% reduction in 2018.
4. I would also be supportive of removing the 10% trap tag overage presently allowed in order to cover trap loss during the year. Presently if a lobsterman is given a total of 880 trap tags, 880 traps are fished “not 800”. By eliminating this “loophole”, actively fished traps will be removed from the water.

5. Finally, I would support a closed season from January 1st to May 1st.

The decline of Area 2 lobster abundance is a function of water temperature increase. Lobstering effort has declined in proportion to or greater than the decrease in abundance. With the average age of an Area 2 lobsterman being over 60 years old further attrition will occur in the next few years. There is no need to put drastic measures such as a gauge increase or closed season during the summer months unless a total cessation of commercial lobstering is management's goal.

Members of ASMFC,

My name is Charlie Wetmore. I am a fisherman from Area 6a in Western Long Island Sound. I obtained my commercial lobster license after graduating from high school in 2006, but fished alongside my father on his boat since my childhood. I ran a boat out of Point Judith, Rhode Island fishing federal waters of Area 2 from 2010 - 2012, and have made many trips on offshore lobster vessels fishing the southern New England waters of Area 3. In 2012 I received my bachelor of science degree from the University of Rhode Island in Aquaculture and Fisheries Technology which I managed to acquire with honors over the course of 6 years as a part time student. While at the University the focus of my studies was on fisheries management.

I have invested the majority of my life into the Southern New England lobster fishery. I have actively fished for all of the past 10 years. I care about the resource, and I pay attention to what I see. I also understand how fisheries management works. I understand how the research data is obtained, and I understand the resulting challenges faced by those who make the management decisions. With all of this being said I would appreciate that you all take the time to not only read, but to listen to the points I am going to make in this letter as I firmly believe that some of the currently proposed regulatory actions are not only unnecessary but will also prove to be overwhelmingly detrimental to the dwindling fishing fleet of Southern New England.

I would like to state at this time that the comments made below are expressed primarily in consideration of LMA 6, specifically western Long Island Sound as this is where I currently fish and is therefore the area on which I feel I have the most competent level of knowledge.

As a fisheries manager you do not manage fish stocks, and in reality you can not manage fish stocks. As a fisheries manager, you are forced to utilize the best available data and from that data implement regulations that are aimed at managing fishermen. While there are many methods of achieving increased or reduced fishing effort this is still essentially the only available tool. Fisheries managers cannot control predation, and they cannot control environmental changes. Draft Addendum XXV makes a few acknowledgements that I would like to discuss in conjunction with this.

- “The principal challenge facing the SNE stock is the increase in natural mortality, primarily due to climate change and predation” (page 1)
- “The 2015 Stock Assessment did not conclude overfishing is occurring” (page 4)

While climate change is completely out of our hands, and an increased fishing effort on some of the overly abundant predators is apparently also out of our hands, it is clear that managers are forced to focus on fishing effort. This is troubling to me since overfishing is not occurring.

Fishing effort is at an all time low. The state of Connecticut has not issued a commercial lobster license in nearly 20 years. Fishing effort, with no further restriction, is only set to decline

in the coming years. It is very important for the members of the ASMFC to take a more detailed look at some of the socioeconomic factors affecting the southern New England lobster fishery, especially for those of us in Long Island Sound, before implementing any harsh overly restrictive management measures.

The fishermen are old and growing older, their boats and gear are aging as well. On top of this our entire shoreline is becoming rapidly gentrified and developed. Working waterfront is disappearing at an alarming rate. Real estate prices are high enough to eliminate any fisherman from owning land on or even near the water. Today there are very few places for fishermen to keep boats, gear and bait and most of the few places that remain will likely be replaced with luxury condos within the next 10 years. There are no town or state fishing piers anywhere in western Long Island Sound. The sad truth is that the people wealthy enough to live on the water do not want to see, smell, or hear fishing boats. These are the types of things that need to be considered when making a decision on Addendum XXV.

The most recent data used for the stock assessment is from 2013-2014. All fishermen agree that the lobster population was very low during these years, but we also all agree on the fact that 2015 and 2016 showed a significant increase in the population. This will be reflected in 2016 log book data which should be taken into consideration before a final decision is made on Addendum XXV.

Long Island Sound as a whole environment has from what I have seen made a huge improvement in the past two years. We have more menhaden than I have seen previously in my lifetime. We have had both Beluga and Humpback whales which are extremely rare. Norwalk had its first pair of nesting bald eagles return for a 2nd year. Oystermen are catching lots of juvenile monkfish which they had never seen before. We are also consistently catching lobsters in the 3 - 5 pound range which was unheard of for western Long Island Sound in previous years. It seems as water quality improves we are beginning to harbor more and more species that have historically been associated with ocean waters. Perhaps this can offer some explanation as to the “lack of cause-effect relationship between SSB and recruitment” (page 3). It is possible that just as the lobsters left southern New England in the late 1990’s perhaps they are beginning to return now, not as juveniles but as mature adults.

Accepting that status quo is unfortunately likely not an option for us as fishermen I would like to briefly discuss two of the proposed management actions that are overly harsh and stress the fact that **any attempted increase in egger production beyond 20% (option A) will fail to preserve a functional portion of the lobster fishery.** The first measure is a closure during the summer months. This will put every fisherman in Long Island Sound out of business. The summer months are when we make our money. It is when the weather is nice, it is when the market is strong and most importantly it is when the lobsters are most active. The loss of the summer season will be impossible for fishermen to recuperate at other times of the year.

The second is the gauge increase. While this may not be as crippling as a summer closure, It will also have a mostly negative impact that will outweigh the potential biological advantage. The main reason behind this is an economic one. I supported all of the gauge size increases up until now, but at some point it becomes too large. At the current size, our average lobster in western Long Island Sound for the 2016 season was just shy of 1 ½ lbs. This is a marketable lobster. At an average summer retail price of around 8 dollars a pound each individual lobster costs somewhere in the 10 - 15 dollar range. People are willing to pay this price, and it is a fair price for the fisherman as well. If he elects to sell wholesale, then there is still enough money for everyone to be happy. At the larger proposed gauge sizes the average size lobster is going to approach or even exceed the 2 lb range. At this size that lobster is now in the 15 - 20 dollar price range. While this is an acceptable restaurant lobster, it is too large and too expensive for the summer picnic, which composes the largest summertime market.

Another consideration for the gauge size increase is well summarized in Draft Addendum XXV in relation to closed seasons “A biological benefit of this tool is that it removes harmful stress sustained by lobsters when they are caught in a trap, hauled to the surface, and handled by fishermen” (page 18). This is true. The more lobsters are handled by fishermen prior to being retained as catch, the greater the risk of mortality or loss of claws. This can occur through predation, through fighting with other lobsters or crabs in the trap, and also from physical stress. At a larger gauge size the lobster will be at a higher risk of being damaged or killed.

Because of the above reasons my recommendation to achieve a targeted 20% increase in egg production in LMA 6 is composed of a trap reduction as well as an extended season closure through the winter. My percentages are derived from Table 12 and Table 13 from page 31 and is as follows:

- Reduce trap allocations by 20%
    - -10.48% increase in egg production
- Extend the seasonal closure from September 8 until February 28
    - -10.1% increase in egg production

These two measures in conjunction should satisfy a 20% increase in egg production, however I also strongly recommend the implementation of a v-notch program in LMA 6. This is a proven successful conservation method. It works well in LMA’s 1, 2, 3, 4 and 5. It should be a zero tolerance policy and that there needs to be enforcement. The fishermen will do this voluntarily. We are not asking for any funding. It is however the job of the fisheries biologists to find a way to quantify this effort if it is enacted in terms of increased egg production.

My final recommendation pertains to the recreational lobster fishery in LMA 6. The trap allocation for recreational fishermen should be reduced to 5 or fewer traps. It is currently 10 which is too many. People take advantage of the system, they get their friends and cousins to get licenses as well and are able to easily fish 30 plus traps. They are clearly selling the catch

for cash. It is illegal but there is little to no enforcement. They also have less incentive to be honest. Commercial fishermen are not going to risk losing their licenses to take undersized, v-notched, or egg bearing lobsters. The average recreational fisherman will and does. At the very least recreational fishermen should absolutely have to adhere to the same restrictions that commercial fishermen do.

Sincerely,

Charlie Wetmore

RECEIVED

MAR 2 9 2017

ASMFC

From : Chris Stien
PO Box 131
Menemsha, MA 02552

March 22, 2017

To Fisheries Council:

Normally I do not engage in your hearings. Over the years it has proven pointless as your opinion has already been determined. This time I have no choice, your actions this time seriously threaten my livelihood. I have lobstered out of Menemsha, MA, on the Vineyard since 1982. I have stood by over the years and watched as all of you have ignored us as a fishing community and been unwilling to protect our home waters around the island.

Our fishery is not currently in a state of collapse. Our landing records the past 15 years will doccument this clearly. Your unwillingness to recognize our lobster stock as independent fron N.Y, N.J, Conn, and R.I. is absurd. Earlier stock studies have proven this. Our landing records show that our lobster fishery is cyclical by nature and evolving with climate change . The fishery is evolving not collapsing. Your drastic measures are totally uncalled for and unreasonable.

Over the years you have been unwilling to help us protect our local fishery in the waters around the island. We all have fished small lobster boats less than 38 feet and usually fish less than 450 pots. Most boats are single handed with some double handed. In recent years an influx of boats from New Bedford, Fairhaven, Westport, Point Judith , Mattapoisett and Stonnington have moved into our local waters. Most fish the maximum number of pots, and are fishing boats 40 to 50 feet in length, and are three or four handed. Many of the individuals moving in on our area have been involved in the crafting of legislation which has allowed them to purchase and stack liscences. The very boats that are putting the most pressure on the fishery are involved in the crafting of the management plan.

Our local lobster fishery is vital to our survival on the island and it is sustainable. **Our request is that you limit pot totals in our area to 450, with a 38 foot maximum boat length and 2 crew maximum.** This is quite simply sensible management back to the levels that were always fished in this area. This was done on Matinicus Island in Maine and it worked well for all parties.

It seems highly likely that the federal government is making an attempt to marginalize our lobster fishery so as to open the federal waters up for both domestic and foreign wind farms. This has been obvious for the past ten years. It does not seem a stretch to think there is an effort to undervalue the health of our fishery to clear the way for the energy industry.

Long story short, our livlihoods are at stake and our fishery is being misrepresented both locally and by the federal government. **We need your help,**

not a fishery closure. Your movement toward a closure will cause a class action lawsuit. We would much rather work with you rather against you. One thing is sure, the island lobster community will no longer stand silent. Maine has consistently stood by its lobster fishery and community. It is high time Southern MA does the same. The ball seems to be in your court I hope you have the courage to stand with us and our fishery.

Chris Stien, Menemsha Ma.

RECEIVED

MAR 2 3 2017

ASMFC

Dan Lieb

107 Wilson Road • Neptune • New Jersey • 07753 • 732-776-6261 • aqualieb@aol.com

March 20, 2017

Megan Ware
1050 North Highland Street, Suite 200A-N
Arlington, VA 22201

Megan Ware,

I attended the ASMFC meeting in Belmar on Wednesday, March 15 and reviewed the materials distributed regarding the "Draft Addendum XXV to Amendment 3 to the American Lobster Fishery Management Plan" dated January 2017. I support options 1b, 2b, 3c, 5b and 6a. That said, I also support only changing the gauge size for recreational divers and no season closure.

From my personal perspective, I believe that the 1-4 percent impact that the recreational lobstermen have on the population of lobsters taken by the entire lobstering community in this region is minimal at best. The fraction within that fraction that represents sport divers has even less. Personally, I only take lobsters that are already well above the minimum size as I prefer 2 to 3 pound ,lobsters on my stove and on my plate.

Please reach out to me with any questions or comments.

Respectfully submitted,
Dan Lieb

Dan Lieb

3/28/17

Hi, My name is David Dorski, Mass permit # 007023. I attended the meeting at Mass. Maritime on March 23 and agree and support all the comments presented. I have fished Area II mainly Buzz. Bay and Vineyard Sound full time for 37 years, No other Jobs.

Any of the 3 options presented would put anyone out of business FullTime or part Time Your Data does not include 2015/2016 fishing seasons, 2012-2014 seasons were a bit of a struggle but the last 2 seasons everyones landings have increased. I personally have seen more male and female juvinile lobsters in the water. I am going to give you my professional opinion on the 3 options with 37 years of landings considered a highlight my Thoughts are extremely credible, look at my landings signed under the penality of perjury.

Summer Closure:

This option would be the worst, Area II fishermen make most of there income in that short time period. The lobsters are hard, the market strong. please consider a winter Closure. Inshore gets a run from Thanksgiving to New years, the lobsters are very soft many canadian lobsters on the market so the price is very low. I suggest a Oct-Feb Closure all lobster gear out of water.

fisherman protest This because all their traps are not tagged properly and don't want to get caught Bringing traps to the dock without trap tags.

Trap cuts:

We are just into the second year of trap reduction which was suppose to take care of the egg production problem, we have not come close to see if it is working? I am going from 800 to 400 traps, 50% reduction, There are fewer fishermen and fewer traps in the water our catch reports prove That. Your Data is kind of a "Hocus focus" approach alot of times Bar Graphs and numbers Dont reflect the TRUTH. I strongly disagree where the state of Mass places their trawl survey traps for these survey in Buzz. Bay and Vineyard Sound. The traps are never placed on the bottom in the right spot. A skilled hunter like myself could move 20 yards and do a 1½ lbs/trap but rather They sit on dead bottom loading up with spider crabs and fish. That Data does not really show whats on the bottom.

Gauge Increase:

Gauge increases sounds good looks good on your charts and graphs but in the real world is Not effective. I believe we went thru 5 gauge increases in the early 2000's and nothing huge came from that and the water was cooler and we had alot less predation. The odds of a lobster living on the bottom longer with predation from Tautog and Seabass is Nil. I cannot leave my traps unhauled for more than 3 nites

cause the fish get in and kill every lobster, you would have to see it to believe 30 Juvinile Tautog in one pot. 5 years ago we could let our traps sit for 5 nites with no problem. Our ecosystem has been unbalanced for the last 5 years because of the small seasonal quotas on Tautog and Seabass, look at how the yearly seabass limits dropped dramatically as the lobster stocked dropped as well but ASFMC barely talks about it. My professional opinion is leave the Gauge alone, why throw more lobsters in the water column so the fish can eat them rather let us catch them to feed our families. Area II has reached its threshold on lobster size!

The yearly harvest of seabass and Tautog must go up dramatically if Area II lobsters are going to survive. Yes, the water is warmer but predation is the main reason, in my opinion you can make all the rules you want but they won't work with the Ecosystem in balance I have seen in the past 5-10 years.

If the ASFMC wants to try and ~~preserve~~ save Area II go to the root of the problem, increase fish quotas, have a winter closure and lets see how the 50% trap reduction works.

Thank you

David Demski

F/V Roundabout

Edward McCaffrey F/V Aces High

15 Winterberry Rd. , Saunderstown,RI 02874 aceshigh002@verizon.net

Objective

Egg Production For SNE Waters

Issue #1 Egg Production Target

- Option A: Status Quo/ No Action
- Offshore Area 3 SNE waters are poorly sampled. The sampling that is done is by an antiquated and inefficient method that has no relevance to how lobsters are harvested. The trawl surveys done in the groundfish fishery were proven flawed in side by side survey tows using actual fishing boats and crews that knew how catch fish. The same principle applies in that the surveys are done in places that either hold no lobsters or the timing of the surveys is not done to coincide with max abundance. Additionaly the method used for surveying needs to be in line with the traditional methods used for harvesting lobsters. Industry initated ventless trap surveys would be the preferred method in my opinion. Also the industry data that is available from CFRF should be incorporated into any evaluation models. In Area 3 dating back to the early 2000's we have proactively reduced traps by 30% with further reductions ongoing along with gauge increases that have already taken place. We have finally been seeing the intended benefits of those measures and yet we aren't given credit towards any future management actions. This seems like an injustice in the way of the finish line being constantly moved before prior management actions have been fully realized.

ISSUE #2 MANAGEMENT TOOLS: OPTION A

- Industry should be allowed the flexability to select their own restrictions to meet the management objectives.

Issue #3 Recreational fishery

OPTION A

- All user groups should share in any management actions taken to be fair and equitabl

Issue #4 seasonal closures

OPTION B:

- I personally don't believe a seasonal closure is warranted in the SNE Area3 waters. The resource isn't at catastrophic abundance levels to include this as a management measure. Should this action move forward it should allow for the Jonah Crab fishery to continue without having a most restrictive rule apply.

Edward McCaffrey F/V Aces High

15 Winterberry Rd. , Saunderstown,RI 02874 aceshigh002@verizon.net

Issue #5:Uniform Regulations

- Option A: Status Quo
- Each of the LCMA's within SNE have unique and differing fishing practices. I don't want to speak for how another management area should conduct/manage their area and vice /versa.

Issue #6: Implementation of management measures in LMCA3

OPTION D:

- There is a need to establish a designated line with an overlap so the SNE stock can be managed separately from GOM/GB stock. Also a sunset provision so as not to permenately divide AREA 3.

Issue #7:Management Action in De Minimis States

no opinion

Final Thoughts :

I think the Board should seriously consider a mandatory V Notch for ALL of Area 3. As we can learn from our neighbors in Maine, they have V Notched for decades with great success and benefit to the overall health of the stock they fish on .I personally have had my crew on board my boat V Notching for the past 10 years. I see nothing but upside to this approach. The price of a V Notch tool is no more then $20 so the fleet wouldn't be burdened with purchasing an expensive item. I realize there are enforcement issues to be considered, but I am sure this could be not only a practical way of increasing egg production to the target numbers in the event status quo is rejected but it can be done with minimal impact/hardship on the fleet.

I would also like to add that I have fished on the same patch of bottom in Atlantis and Alvin Canyons for the past 26 years either a relief captain of another offshore lobster boat or the last 16 years as a boat owner/captain. I saw this bottom be very good in the 90's to seeing some less prosperous times in the early 2000's to seeing it rebound rather nicely since about 2010. I don't think it just coincidence that the efforts and sacrifices made in the early 2000's are now being realized in 2017. I believe it takes from 7 to 10 years to see any significant impact in relation to management measures to come to fruition. If we continue along placing more restrictions on the SNE portion of AREA 3 it would be safe to say the benefits wouldn't be realized until 2025-2030. With more stock assessments to be done in the intervening years if we did something/anything now those numbers would still be lagging until enough time was given to see realization. I personally have had a 97% increase in my landings since 2010-2016. All of it was done fishing the same bottom with the same amount of traps done in roughly the same amount of trips. Fishing practices stayed the same nothing changed from year to year. It translates to about13-17% year over year increases. My point here is the the sacrifices of 15 years ago have paid their dividends and yet were not receiving credit for whats been done already. Until a better

way of data collection/sampling along with industry input is in place I ask for Status Quo.

Submitted Respectfully:

Edward McCaffrey
3/22/17

RECEIVED

MAR 2 7 2017

ASMFC

COMMENTS FOR LOBSTER ADDENDUM XXV

FROM

GARY MATARONAS
F/V EDNA MAY

&

GARY MATARONAS JR
F/V NIGHT PROWLER

RECEIVED

MAR 2 7 2017

ASMFC

MATARONAS LOBSTER CO., INC.
Gary S. Mataronas, President
22 CALIFORNIA ROAD
LITTLE COMPTON, R.I.
02837 – 1010
(401) 635-2143

March 20, 2017

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

Dear Commissioners,

I am the owner of the eighty-three foot offshore lobster boat Edna May. I started fishing at Sakonnet, RI at the age of ten in 1963 in a skiff. I graduated to a twenty six foot lobster boat at age 16. At age 19, I built myself a 40 foot lobster boat that I lobster fished in SNE Area 2 and then in 1973 I started lobster fishing in SNE Area 3 between Veatch and Atlantis Canyons. In 1975 I purchased a sixty-five foot offshore lobster boat (Custy Lobster) and lobster fished the same area. In 1980 I had a new lobster boat built (Edna May) and continue to fish the same canyon areas. Of course at that time there were no separate areas as there are today.

Having fished both areas, I am certain that SNE Inshore Area 2 and SNE Offshore Area 3 are not the same stock but two different and distinct stocks. It is very clear to me that that the minimum gauge size increases and maximum gauge size decreases have made a significant increase in catch and brood stock in the offshore canyons. With the latest 25% trap reductions that are now being instituted it was my belief that was to decrease traps being fished so we will have less fishing mortality and more egg production. I originally started out with 2400 traps and after the last round of trap reductions and this new 25% trap reduction I will be at a little over half my original allocation. That has to count for something as far as lobster mortality and egg production are concerned.

After speaking to many SNE Area 3 offshore lobstermen we all agree the resource is on a rebound, especially in the last two years. Everything in the ocean goes through cycles both up and down and we seem to be on an upward trend, yet I don't see that mentioned in the addendum. If you look at the landing reports from New York and Long Island Sound, they just had a very good year when not many years ago they also were in a doom and gloom situation.

My son also lobster fishes in offshore Area 3 on his 50 foot lobster boat Night Prowler and his comments will be the same as mine.

I am attaching my reasons for a STATUS QUO option:

Sincerely

Gary Mataronas
Mataronas Lobster Co., Inc.
F/V Edna May

Gary Mataronas Jr
F/V Night Prowler

MATARONAS LOBSTER CO., INC
GARY MATARONAS
F/V EDNA MAY
F/V NIGHT PROWLER
401-635-2143
lobster2@cox.net

REASONS TO LEAVE IT STATUS QUO IN SNE AREA 3

1. In the last several years the abundance of lobsters in SNE Area 3 has had a tremendous increase in eggers, both small and large, as well as juveniles (the traps are coming up full to the opening of the back head), and the legal size lobsters are greater than we have seen in decades.

2. There is a big disconnect from what the scientist are seeing and the abundance of lobsters which are coming up in the traps in the canyons.

3. Any trawl surveys done were not on productive bottom because that bottom is tied up with lobster gear. We all know the disaster the ground fish trawl surveys were.

4. We have gone through a 30% trap reduction previously and are now in a 2nd trap reduction of 25% along with the 10% loss of traps with every trap transfer and that must be considered. This must count toward egg production.

5. We have not gotten the full effects of the recent gauge increase and trap reductions, yet we may face more restrictions before they come into fruition. This is not fair, nor equitable.

6. The stock assessment is for 2015, yet the data for that assessment is from 2013-four years ago. The lobster fishery changes on a yearly basis and this must be taken into account.

7. The SSB is level yet the recruitment is off. This is most likely do to predation by dog fish, black sea bass, and skate, which have been allowed to come back in immense numbers. This may be due to changing sea temperatures but it is also due to strict regulations that won't allow fishermen to catch them to keep them in balance. BSB are voracious eaters of juvenile lobsters as I can attest to as I also fish pot for BSB.

8. If anything, lobstermen help the resource by creating habitat and food for the small lobsters as they enter to feed and go out through the escape vents.

9. The majority of the ventless trap surveys were done in Area 2 with very little sampling in Area 3. I think you have to differentiate between the 2 areas as there may be a problem in Area 2 that we are not experiencing in Area 3, yet we are all being lumped together.

10. I have been told by many Area 2 fishermen, that this last year was one of the best for lobster catches they have had since the nineties.

11. Ventless trap surveys have been done in Area 2, but the areas the traps were set on were computer generated and from personal knowledge, most of these set areas have never held lobsters. At least 75% of the traps were set on unproductive bottom, so when there are no lobsters coming up in the traps that means there are no lobsters in the whole area, therefore the lobster stock in that area is considered collapsed. Lobsters only inhabit certain areas and if the traps are not set in these areas the science is skewed.

12. There have been no such ventless trap surveys in Area 3 until recently, and the surveys were done by offshore lobstermen and to my knowledge none of this data is being used. This data is available at the CFRF in Rhode Island.

13. With only the Area 2 stock assessment being done and no stock assessment done in Area 3, I don't understand why Area 3 is considered in such poor shape. This is certainly not the case with the tremendous amount of lobsters we are seeing offshore.

14. Any further restrictions will put a severe negative financial impact on the lobstermen.

15. Any action will be pitting lobstermen from different areas against each other and surely will create gear conflicts, and I'm sure that is not the intent of the commission.

16. The science just does not substantiate the abundance of lobsters we are seeing in the traps.

17. I have attached an article from the January 2017 Commercial Fisheries News about a lobster survey done by BOEM and conducted by URI Graduate School of Oceanography researchers Jeremy Collie and John King where they stated:

    "We were pleasantly surprised to find a healthy lobster population offshore, given the status of the inshore lobster stocks."

    "Off course the lobstermen who trap there already knew this, but our cooperative study was the first to document offshore lobster abundance with ventless trap surveys."

Sincerely,

Gary Mataronas
Mataronas Lobster Co., Inc
F/V Edna May

Gary Mataronas Jr
F/V Night Prowler

CFN JANUARY 2017

BOEM releases study on MA, RI wind areas

WASHINGTON, DC – In a related development, BOEM recently released several studies in the RI-MA WEA and the Massachusetts WEA.

In 2016, University of Rhode Island Graduate School of Oceanography researchers Jeremy Collie and John King completed the "Spatial and Temporal Distributions of Lobsters and Crabs in the Rhode Island Massachusetts Wind Energy Area."

The report was the first part of a before-after and control impact (BACI) study.

In 2014 and 2015, researchers collaborated with three local lobstermen in the pre-construction survey. The fishermen and biologists sampled 80 traps at each of eight stations four times a month trap from May to October.

"We were pleasantly surprised to find a healthy lobster population offshore, given the status of inshore lobster stocks," Collie said in an e-mail.

"Of course, the lobstermen who trap there already knew this, but our cooperative study was the first to document offshore lobster abundance with ventless traps.

"We found that the cobbly-sand blocks were more important lobster habitat in both study years. This is one important piece of information for determining wind farm layout, among other considerations. Our study also provides a baseline of lobster abundance, against which to evaluate the potential effects of development."

In the "Northeast Collaborative Large Pelagics and Acoustic Survey for Whales and Sea Turtles," a consortium of researchers led by the New England Aquarium collected baseline data on abundance, seasonality, and distribution in a four-year BACI survey.

The study area encompassed both the RI-MA and the Massachusetts WEAs, the Muskegat channel, and the Northeast Offshore Renewable Energy Innovation Zone (NOREIZ).

Seven whale species and four sea turtles are known to frequent the study area; all but one is listed as threatened or endangered with extinction on the federal Endangered Species List.

The report recommends continuing documentation within the WEAs during and after the completion of the wind farms to answer questions about the acoustic effects on whales and their prey, impacts on presence of North Atlantic right whales in particular, and the impacts of electromagnetic fields around

2014 + 2015 OFFSHORE VENTLESS TRAP SURVEY

MATARONAS LOBSTER CO., INC
GARY MATARONAS
F/V EDNA MAY
F/V NIGHT PROWLER
401-635-2143
lobster2@cox.net

POSSIBLE ACTIONS FOR SNE AREA 3

1. Differentiate lobster abundance and restrictions between LCM areas.

2. If needed, a 1/32 inch increase in minimum gauge size and 1/4 inch reduction in maximum size across all of AREA 3. This will stop boats moving to the east and creating tremendous gear conflicts and make it fair and equitable to all Area 3 lobstermen and resolve any area enforcement issues.

3. Any restrictions should be made for all LCM areas with the most depleted areas taking the biggest cut. It certainly will not be fair to have Area 3 take the brunt of any restrictions when we don't seem to have a problem, and no studies were done to prove we do, yet it is Area 2 that has the least abundance.

4. We should go with Status Quo until all gauge and trap reductions have come to fruition.

5. The current 50% trap reduction in Area 2 and the 25% reduction in all of Area 3 along with minimum gauge increases and maximum gauge decreases must be taken into consideration when dealing with increased egg production. It's unfathomable to institute any more restrictions until these have come to fruition.

6. If there is a separation zone in Area 3, it must have a sunset provision to allow us to maintain our current fishing practices. Separation zones in Area 3 will also be an enforcement nightmare.

7. In the document it states the amount of trap reductions we have done and are going through will increase egg production by 13%. This must be considered.

8. A closed season January, February, and March where no lobsters are allowed to be onboard or landed while we can continue to land Jonah crab will add another 3%.

9. In Area 3 it will be impossible to bring gear home, yet by regulation we must haul our gear every 30 days. Bullet 8 will alleviate that problem.

10. I don't believe any more restrictions are warranted in Area 3 until all gauge changes and trap reductions come to fruition, and ventless trap surveys are done in the offshore canyons. If the commission is going forward with some form of further restrictions, they must be fully vetted so they don't have total adverse impacts on the lobster industry.

Gary Mataronas
Mataronas Lobster Co., Inc
F/V Edna May

Gary Mataronas JR
F/V Night Prowler

April 6, 2017

To Whom It May Concern:

I am writing in response to the draft addendum XXV to amendment 3 of the Interstate Fishery Management Plan for American Lobster. I am the New York Chair of the New York Lobster Conservation Management Team. My comments will have to be considered un-official as the area six LCMT has not had an official meeting recently. Most of the area six LCMT members were present at the NYSDEC Public Hearing of addendum XXV on March 20th 2017.After Lengthy discussions on addendum XXV, Mr. Jim Gilmore of the NYSDEC called for a vote of hands on addendum XXV. The record should show that it was a unanimous vote for "Status Quo", no additional regulations for Area 6 at this time.

Our position has been and remains that Area Six (Long Island Sound) should be managed as its own exclusive area. Conditions in the Long Island Sound are unique and bear very little similarity to the entire southern New England area.

Where are we after 25 addendums? None of the regulations put into effect as the result of any addendum have had the desired results. For thirty years we've heard "trap reductions, trap reductions, trap reductions". We have gone from 360,000 traps during the height of the fishery to 10,000 traps being actively fished. A 97% reduction to due economics not any regulation.

In the past two years we, the lobstermen, have seen a dramatic increase in the lobster stock in Area 6. We believe that the logs from the New England Fisheries Observer Program will bear this out.

The Derelict Lobster Trap removal Program administered by Cornel Cooperative Extension. Marine Program should be recognized as beneficial. To date 17,000 derelict lobster traps have been removed from Long Island Sound. 20% of these traps had lobster in them. This program has to be worth some credit in decreasing lobster mortality. Even a small percentage of natural loss of the 360,000 traps, plus intentionally abandoned traps add up to thousands of ghost traps on the bottom of Long Island Sound.

Area 6 wants to be its own management area and right now we want Status Quo.

Sincerely,

George J. Doll Jr.

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APR 0 3 2017
ASMFC

James F. King
220 East Mill Road • Mattituck, NY 11952 • (516) 298-4718

MAR 25 2017

TO: THE AMERICAN LOBSTER MANAGEMENT BOARD

MY NAME IS JIM KING. I HAVE LOBSTERED IN EASTERN AND CENTRAL LONG ISLAND SOUND FOR 53 YEARS. MY BACKGROUND INCLUDES SERVING ON THE EFFORT MANAGEMENT TEAM FOR AREA 2, MEMBER OF THE ASMFC LOBSTER ADVISORY BOARD REPRESENTING NEW YORK, MEMBER OF THE NY MARINE RESOURCES ADVISORY COUNCIL, MEMBER OF AREA 6 LCMT, AND PAST PRESIDENT OF THE LONG ISLAND SOUND LOBSTERMEN'S ASSOCIATION WHEN IT WAS A CREDIBLE ORGANIZATION. SINCE 1978 I HAVE TAKEN OUR NY STATE LOBSTER BIOLOGISTS SEA SAMPLING THE LONG ISLAND SOUND LOBSTER RESOURCE

ONE ONLY HAS TO LOOK AT THE PAST HISTORY OF THE LOBSTER FISHERY TO REALIZE WE HAVE BEEN DEALING WITH THE SAME PROBLEMS FOR WELL OVER 100 YEARS. PROCEEDINGS OF THE FOURTH INTERNATIONAL FISHERY CONGRESS HELD AT WASHINGTON SEPTEMBER 22 TO 26 1908 COULD BE DATED 2017. THE WORKS AND OBSERVATIONS OF FRANCIS HERRICK ARE STILL VALID OVER 100 YEARS LATER. TODAY, I WOULD STRONGLY URGE SERIOUS CONSIDERATION BE GIVEN TO THE BIOLOGICAL AND ECONOMIC BASIS FOR REBUILDING THE SOUTHERN NEW ENGLAND LOBSTER FISHERY WRITTEN BY RICHARD B. ALLEN COPYRIGHT 2003.

WHILE I CAN ONLY SPEAK ABOUT THE AREAS I HAVE LOBSTERED HERE ARE SOME SUGGESTIONS!

1. IF CURRENT FISHING EFFORT IN AREA 6 COULD BE MAINTAINED WE DO NOT NEED AN INCREASE IN MINIMUM CARAPACE LENGTH. IF CURRENT EFFORT CANNOT BE MAINTAINED, WE HAVE NO OTHER ALTERNATIVE AND AN INCREASE IN MINIMUM SIZE WILL BE NECESSARY.

2. IT IS DISAPPOINTING THAT V NOTCHING IS NOT CONSIDERED IN THIS ADDENDUM. I HAVE PERSONALLY V NOTCHED THOUSANDS OF LOBSTERS IN HOPES OF AIDING EGG PRODUCTION, UNFORTUNATELY I FEAR MOST OF THEM HAVE BEEN MARKETED.

James F. King
220 East Mill Road • Mattituck, NY 11952 • (516) 298-4718

MAR 25 2017

2

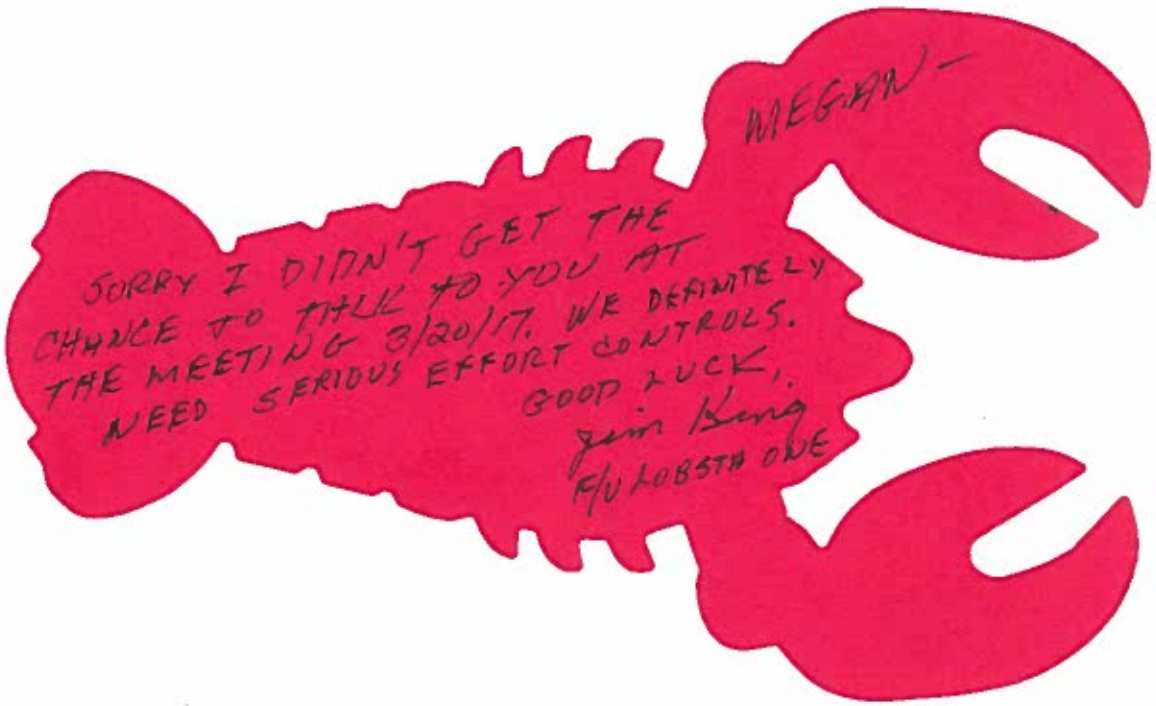
3. IN MY OPINION AREA 6 (PROPERLY, AREA 6 SHOULD BE ALL THAT AREA WEST OF A LINE DRAWN FROM ORIENT POINT NEW YORK TO THE MOUTH OF THE CONNECTICUT RIVER) COULD BE QUOTA-MANAGED WITH A DAILY LIMIT AND SEASONAL CLOSURE. THIS WOULD BE EASY TO ENFORCE, CONTROL EFFORT, AND HASTEN STOCK RE-BUILDING WHILE MAINTAINING A FUNCTIONAL FISHERY.

IN CLOSING PLEASE CONSIDER THE MANY MISTAKES MADE IN THE PAST THAT SHOULD BE CORRECTED. FOR EXAMPLE, AREA 6 IS MUCH LARGER THAN ORIGINALLY PROPOSED AND SHOULD BE REVIEWED. TRAP ALLOCATIONS FOR AREA 6 ARE ABSURD AND SHOULD BE VOIDED. LCMT'S ARE IN REALITY THE FOXES GUARDING THE CHICKEN COOP AND SHOULD BE RE-EVALUATED.

SINCERELY

Jim King

F/V LOBSTA ONE


MEGAN -
SORRY I DIDN'T GET THE
CHANCE TO TALK TO YOU AT
THE MEETING 3/20/17. WE DEFINITELY
NEED SERIOUS EFFORT CONTROLS.
GOOD LUCK,
Jim King
F/V LOBSTA ONE

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APR 05 2017

ASMFC

TO: Megan Ware

Subject: Lobster Draft Addendum 25

From: Joe and Denise Wagner

J W Commercial Fishing Inc.

Date: April 5, 2017

Dear Megan,

This letter is being faxed to comment on the Lobster Draft Addendum 25. We mainly fish in Area 5. In the document it is being proposed that New Jersey be lumped with the northern states for regulating. New Jersey should be split from the northern states we have nothing to do with New York north. We should be with Delaware, Maryland and Virginia because we fish the same areas.

Let me also address some of the other options being proposed. Trap reductions will not work. Imposing more trap reduction will only accomplish one thing and that is punish the fishermen who follow the law. The enforcement of the trap limits we have now are impossible. We support a season closure in Area 5 from January through April. Size limits should be the same in all areas. Both recreational and commercial lobster fishery should take the reduction. We are not in favor of throwing back culls or trip limits. An Area 5 closure will not affect the directed Jonah Crab fishery because there isn't one in Area 5 in New Jersey. Johan Crab landings occur in the summer months as a bycatch. Not sure how true it is that the Jonah Crabs are used to supplement income it is more likely become of fishery because we now have a market for them. We believe that each area is unique and should each have their own regulations, we should not be put with Area 4. If that cannot be done then we respectfully request that you look at the

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seabass regulations for Area 5 pertaining to the Area 5 waiver permit and make them uniform and divide the state at Barnegat. In New Jersey landings for lobster are off because traps in Area 5 are off. Area 5 fishermen mainly catch lobster as a bycatch with their seabass. Seabass regulations in New Jersey have been so restrictive that a typical seabass fisherman cannot make a living off of it and have gone to other fisheries where you can sustain a business, it has nothing to do with lack of product, just lack of effort. So in my final comment for Area 5, Area 5 should be left alone until such time that an effort abundantly increases because we have taken a reduction already for the reasons mentioned above.

We also hold an Area 3 lobster permit and are against the split. The proposals in the document will make our vessels/permits harder to sell and severely decrease their value. If we have to choose and option we reluctantly choose option C, where you can annually declare if you choose to or otherwise follow the more restrictive. Our Area 3 permit that we hold is in Confirmation of Permit History. How are permits in CPH going to be addressed?

In close, New Jersey did not have an ASMFC Representative at our public hearing due to weather. There was some confusion at the meeting about the Addendum and we hope we correctly understood and commented accordingly.

Respectfully Submitted

Denise Wagner

Joe Wagner

Joe Horvath Jr

364 20th Ave

Brick, NJ 08724

March 1, 2017

ASMFC members:

I use wire pots to target lobster, Jonah, and fish. Please help me by allowing the continued use of wire traps during the closed lobster season so I can direct my fishing efforts towards crabs and fish. It is important for me to sustain my fishing career to provide for myself and my family.

As a single father of a 6-year-old little girl I would have a difficult time removing my gear from the fishing grounds. I try my best to manage a schedule that permits me to fish and care for my daughter. The removal of gear will create a tremendous hardship because of the immeasurable amount of effort need to return 1200 traps to the dock. The time spent moving gear should be used for Jonah crab fishing as that is my only means of income during the closure.

Gear removal would mean that at least one month prior to a closure I would have to stop fishing and concentrate on haul gear to the dock. Weather and mechanical breakdown further complicate the huge undertaking that would be required to remain compliant with gear removal. Realistically, I would need two months to remove the gear from the fishing grounds. After the season closure it would take and additional month or two to reset the gear. I assume that during a 30-day closure I will miss a minimum of 90 days of potential fishing.

I cannot afford go without an income for months on end. I rely on my crab and fish landings to pay my monthly bills. Please do not take my ability to make a living away. Please do not force me to overload my boat with traps and work when the weather is not favorable. That is the only way I could get all my gear home. Additionally, I have a very small crew and don't know how I will pay them to move gear in and out of the ocean with no source of income.

If the gear is removed from fishing grounds the commercial dragger fleet will move in. I am afraid that the draggers will have a negative impact on the habitat where lobsters live. The traps have a far lesser impact on the sea floor and provide food and shelter for a lot of small lobsters. The traps work as feeders for juvenile lobsters where I fish. The draggers can and will decrease the amount of lobsters in that area. Please help me protect what's left of the only fishery I know.

Sincerely, Joe Horvath Jr – F/V Fully Loaded

Joe Horvath
236 Old Tavern Road
Howell, NJ
F/V Baby Doll

March 1, 2015

ASMFC members:

I have been fishing NJ waters for lobsters since 1968. In all my years of lobster fishing I still cannot say where they come from. I believe that ASMFC may not know either. There is almost zero data collected for the NJ fishery. Before we suffer from any more regulations we strongly recommend that a full analysis be performed not only on the population of lobsters but also sea floor habitat, egg distribution, young of the year, and the environmental impacts of run off from the industrial areas surrounding the NJ fishery. Additionally, the Long Island Sound die remains a mystery; concluding that not enough has been done to understand the NJ fishery and our neighbors.

NJ fishermen can strongly benefit from a tagging program that can be shared among other states to better understand where and why the lobsters are moving in and out of our fishing area. I suspect that the increase in harvest from the GOM may be decreasing the amount of lobsters that move in and out of NJ fishing areas. We need better science to understand the relationship between GOM and SNE stocks.

In addition to our fears that managers are using very little data from NJ we also face a major hardship with regards to the removal of our gear. The major concern is the loss of productive fishing ground. NJ fisherman typically fish the same bottom from generation to generation, fathers passing good bottom to their son as I hope to do as well. If the gear is removed from areas, we fear the commercial draggers will take advantage of this vacancy and tow though what we believe to be pristine sea floor conditions. The trap fishery leaves a minimal environment impact when compared to commercial draggers. The dragger fishery has the potential to disturb the sea floor and indirectly target the lobsters that inhabit it. Lobsters that are captured by draggers have little chance at survival. They suffer damage to the appendages and the lungs are filled with sediment. We would like to protect our fishing areas and the habitat it creates for all sea life.

The amount of time required to remove our gear from the fishing grounds is also a major hardship. Our permit allows for 1400 trap limit. F/V Baby Doll is a typical size lobster boat and measures 38'. The boat can safely return 80 traps to port in one day and a second day is needed to unload. If we were to remove all of our gear from the ocean it would take 17.5 days of sailing and an additional 17.5 days at dock. Under absolute perfect conditions, we would have to stop fishing 35 days prior to the season closure to remove our gear and spend an additional 35 days to reset after the season opens. If weather and mechanical breakdown is taken into consideration it seems as if removal of gear is almost impossible. Land owners demand top dollar to store freshly hauled traps and the smell and insects further complicate the matter. Overloading the boat becomes dangerous as well.

In all fairness to the NJ fishery we ask the ASMFC to remain status quo and adopt language in the regulations that allow us to keep the traps at sea so the fishermen can target Jonah crabs and fish during season closures.

Sincerely,

Joe Horvath Sr

March 13, 2017

ASMFC,

An increase to minimum gauge size will further complicate interstate commerce between SNE and GOM dealers. This is stated in 2.6.1 of Addendum XXV. SNE states depend on GOM to provide a stable supply chain because local production cannot fill the demand. If a gauge increase is implemented, NJ dealers may increase the amount of lobsters imported from the GOM; that is unless the demand diminishes because many popular sizes become illegal to possess in NJ. SNE dealers have already been excluded from the Maine chix market because our minimum size is larger than the GOM; any additional increase will exclude NJ from the 1-1/4lb market as well.

The information presented in Table 9, pg. 23 of Addendum XXV has the potential to eliminate a considerable amount of sizes that restaurants and supermarkets depend on to drive sales. Most of the lobsters used to drive sales are being imported from the GOM. It is unrealistic for SNE states to limit sizes offered to customers simply because they cannot be legally harvested from that state. Exceptions should be made for SNE dealers who would like to maximize the economic benefit of the GOM stock and offer all sizes of GOM lobsters.

Increasing the gauge size without changing the current possession limits for dealers could have the potential to decrease the imports from GOM and decrease the demand for lobsters in NJ if the customers cannot get the sizes they need. The 20-60% reduction through gauge increase could equal the same reduction in GOM imports based solely on the minimum possession limits as they are written now. A decrease in demand will also decrease the value of the fishery on a national level. Less demand, lower prices.

Restaurants and supermarkets have already expressed an interest in GOM lobsters because they carry a MSC certification. The smaller GOM size also makes for better promotions at restaurants and supermarkets because the cost is minimized by the smaller sizes. The current possession limits in states like NJ were implemented as management tools for that states fishery. The strict possession limits are creating a disruption in the supply chain and excluding a portion of the GOM stock. This disruption in supply is limiting the consumer's ability to purchase the best product at the best price. The Marine Stewardship Council certification is also a major concern for consumers who want to know where the products are coming from.

Sincerely, John Godwin

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APR 0 3 2017

ASMFC

Issue 1: Target Increase in Egg Production

- [X] Option A: 0% increase in egg production
- [ ] Option B: 20% increase in egg production
- [ ] Option C: 30% increase in egg production
- [ ] Option D: 40% increase in egg production
- [ ] Option E: 60% increase in egg production

Name: John Godwin
Vessel:
Commercial: Point Lobster Co Fed dealer # 1852
Yes [X]
No [ ]
State: NY NJ
Area:
Submit to: Megan Ware mware@asmfc.org Fax: 703.842.0741

Issue 2: Management Tools

- [ ] Option A: Gauge size changes, season closures, and trap reductions can be used independently or in conjunction with one another
- [ ] Option B: Gauge size changes and season closures can be used independently or in conjunction with one another
- [ ] Option C: Trap reductions and season closures must be used in conjunction with gauge size changes; trap reductions and season closures cannot account for more than half of the increase in egg production

3. Recreational Fishery

- [ ] Option A: Recreational fishery must abide by the gauge size changes, season closures, and trap reductions taken in Addendum XXV
- [ ] Option B: Recreational fishery must abide by gauge size changes and season closures
- [ ] Option C: Recreational fishery must abide by gauge size changes

4. Season Closures

- [ ] Option A: Lobster Traps Removed from Water
  - [ ] Sub-Option I: Most Restrictive Rule Applies
  - [ ] Sub-Option II: Most Restrictive Rule Does Not Apply
- [ ] Option B: No Possession of Lobsters While Fishing
  - [ ] Sub-Option I: Most Restrictive Rule Applies
  - [ ] Sub-Option II: Most Restrictive Rule Does Not Apply
- [ ] Option C: Catch Limit for Non-Trap Bycatch Fisheries
  - [ ] Sub-Option I: Most Restrictive Rule Applies
  - [ ] Sub-Option II: Most Restrictive Rule Does Not Apply

5. Standardized Regulations

- [ ] •Option A: Regulations are not uniform across LCMAs
- [ ] •Option B: Gauge size changes and season closures are uniform across LCMAs 4 and 5
- [ ] •Option C: Gauge size changes and season closures are uniform across LCMAs 2, 4, 5, and 6

6. Implementation in LCMA 3

- [ ] •Option A: Maintain LCMA 3 as a single area
- [ ] •Option B: Split LCMA 3 along 70oW Long.
  - [ ] One time declaration into SNE or GOM/GBK
  - [ ] Mgmt. changes only apply to SNE
- [ ] •Option C: Split LCMA 3 along 70oW Long. w/ added flexibility
  - [ ] •Annual declaration into SNE or GOM/GBK
  - [ ] •Mgmt. changes do not apply to GOM/GBK
  - [ ] •Fishermen who declare into SNE can fish throughout LCMA 3 but are subject to more restrictive management measures
- [ ] •Option D: Split LCMA 3 along 70oW Long. with overlap area
  - [ ] •Overlap zone defined by 30' on either side of 70oW Long.
  - [ ] •Mgmt. changes only apply to SNE
  - [ ] •Fishermen elect to fish in either SNE or GOM/GBK portion of LCMA 3 but all can fish in overlap zone

7. De Minimis

- [ ] •Option A: De minimis states must implement all mgmt. measures adopted under Addendum XXV
- [ ] •Option B: De minimis states are exempt from Addendum XXV mgmt. measures if the state meets the following criteria:
  - [ ] •Close the lobster fisheries in the de minimis states to new entrants
  - [ ] •Allow only lobster permit holders of the de minimis state to land lobsters in that state
  - [ ] •Limit lobster landings in the de minimis state to no more than 40,000 lbs. annually

37 Spring Street
Noank, CT 06340
860.536.7668
April 7, 2017

ASMFC Lobster Management Board,

Comments on Draft Addendum XXV to Amendment 3 to the American Lobster Fishery Plan.

Upon review of this draft I agree with its stated goal, however I disagree with its narrow focus on fishing mortality. As a lobster harvester, in excess of forty years, my observations lead me to believe that this addendum would have a greater chance of stock enhancement if its target was natural mortality i.e. predation. As stated numerous times in this draft, predation by fluke, scup, black sea bass, skates, and dogfish are recognized impediments to lobster population enhancement, and I believe their impacts to small lobsters and the general lobster population are greater than fishing related mortality. I agree that these impacts are difficult to quantify, but I conclude from my own observations that natural mortality due to predation is extremely high, higher than I've ever seen. I understand that these predators are managed by separate boards including NMFS. When I compare the lists of ASMFC commissioners, I find fifty two names on the black sea bass board (BSB), forty of those same commissioners are members of the lobster management board. I challenge the forty commissioners on the lobster board to bring this issue of predation by BSB to discussion at the upcoming May meeting of both boards. The Technical Committee (TC), if directed, could research and present evidence that support fishermen's claims that the BSB population has moved north and is inhibiting the lobster populations ability to rebound. There are ample statistics available from vessel trip reports (VTR) and vessel monitoring systems (VMS) to prove this claim. Lobstermen could be an asset in reducing the overabundance of these voracious predators. These reductions would benefit the lobster stock as well as the lobstermen's ability to remain "functional", a stated goal of this addendum. Simply put, increase quotas on BSB immediately! Attempting to increase lobster egg production without limiting predation is nothing more than feeding the fish and will not significantly benefit lobster population.

I find the lack of an economic impact statement troubling. Page 15 offers some calculations as to landing values, but what is the impact to the ports, towns, and states in which these landings occur? I have seen estimates that claim for every dollar of catch there may be as much a six to eight dollar benefit to the surrounding local land based economies. Lobster harvesters are small businesses that purchase supplies, services, pay taxes, employ, contribute to tourism, and are an accepted cultural aspect of life in the SNE region. This draft should quantify these losses!

I am astounded by the TC's assessment of v-notching (page20,2.6.5). As a lobsterman, I think of v-notching as enhancing egg production. Protection of your breeders, v-notching, has been a proven tool used throughout New England and Canada for over fifty years. After the previous stock assessment (2009), both areas 2 and 4 chose this tool and received credit toward stock rebuilding via mandatory notching. I can not believe that it is now not an available option. In my opinion, v-notching would be widely accepted in area 6 by CT lobstermen and should be considered for implementation, period.

The lobstermen of SNE are returning 73% of the stock at present(page2, table1), while the GOM/GB area returns only 52% of its stock. This fact is a reflection that the small businesses in SNE that rely on harvesting lobster can give no more. I can not further reduce my fishing effort and remain a viable business. This addendum might as well be considered a closure! Therefore I can not support addendum XXV as written. Were I to choose an option, it would be option A; 0% (status quo). In closing, I urge the Lobster Management Board to reconsider implementation of this plan and preserve a "functional portion of the lobster fishery" by addressing predation by BSB.

Sincerely,

John Whittaker

Thank you for taking the time to consider my comments. My name is Kenneth Murgo and I am a 27 year old 3rd generation fisherman from Bristol, RI. I have been commercially fishing full time since 2012 when I graduated Williams College with a bachelors degree in Chemistry. I fish in a diverse group of fisheries (Conch, clams various finfish), with lobster being the newest fishery I am entering. Any increase in gauge size, a closed season, or further reduction to my allocation would cripple my lobster operation and be a massive hardship for me in my quest to grow my fishing business to a point where it is a stable and profitable year round business. For this reason**, I support Option A when it comes to an egg production increase. However, this absolutely does not mean a 0% increase in egg production. As the regulation changes implemented in the past 10 years such as gauge and vent size increases take effect we are witnessing an increase in egg production right now!** Fisherman up and down the coast in SNE have seen a significant improvement in the lobster fishery in the last two years. This includes seeing a large increase in the number of egg bearing females. However, because this addendum only considers data up to 2014 this is not being accounted for. We must wait at least 10 years from the implementation of new regulations to see what their full affect is. Just 2 years ago Area 2 fisherman began a massive 50% trap cut. We are right in the middle of that cut now. Implementing new regulations before the last set have been given a chance to take effect is unfair to fisherman who have been working with regulators for years to preserve what is left of the SNE Lobster resource.

Any new regulations should be decided on taking into considering the most up to date and accurate data available. The fact that this addendum is only considering data up to 2014 is absurd! This totally misses out on the improvements fisherman have seen in the lobster stock in the last 2 years. Also, the fact that the newly released 2016 stock assessment on sea bass was not considered is asinine. Sea bass area a voracious predator of lobster and crab and we have seen an exponential increase in their numbers in SNE over the last 5 years. The fact that the natural mortality number barely increases over the last 10 years is just not accurate. It is bad science! In addition to the sea bass problem there has also been a big increase in dogfish numbers, another lobster predator. **Predation of juvenile lobsters in SNE is a huge problem that must be addressed!** This would be a huge help to the struggling lobster stock and also benefit fisherman who would be allowed to replace some of their lobster catch with landing of sea bass and other finfish. Addressing this would require a massive increase in sea bass on the order of 300-400% for all SNE states that would let fisherman land 50 or 100 pounds on a daily basis throughout the summer and fall.

As an inshore fisherman, any increase in gauge size will be catastrophic. As lobster grow to above keeper size they begin to migrate further and further offshore, as has been shown by many tagging studies. Inshore fisherman like myself will be disproportionally affected by a gauge size increase.

A closed season is no better option, the saving grace for many still in the lobster industry has been targeting crabs when lobster fishing is slow. Requiring that traps come out of the water would ruin this emerging fishery. One of the key drivers behind the growth of the crab fishery has been the opening of processors to extract meat from the crabs. Instituting a closed season would hurt the profitability

fisherman and processors, requiring processor to lay-off and loose their workforce during the closed season.

It is stated in the addendum that one of the goals is to maintain a "functional fishery, one component of which must be younger fishermen to carry the fishery to the next generation. That is me! From experience I can tell you that lobstering is an extremely expensive business to get into. In just the last two years I have spent hundreds of thousands of dollars upgrading my boat, buying licenses, traps, rope, etc. Nearly all of this money goes to local small businesses and supports the little infrastructure us commercial fisherman have left. And this is just to fish 300 traps! Nowhere near the level of a full time lobsterman. If the council goes through with new regulations it will render my investment worthless! As a newer fisherman just learning the ropes my profit margin is much lower than established fisherman. Any regulation that decreases my catch will make lobstering unprofitable for me and endanger the future of the fishery. **For the most part the only businesses able to survive a gauge size increase will be the large offshore operations fishing Area 3. The majority of the inshore and Area 2 boats will go bankrupt. Without the smaller day boats in the industry all of the infrastructure will crumble (docks, bait dealers, trap builders, and other shoreside businesses we rely on).**

I do realize we have a problem with our declining lobster stock. I propose the Board considers the comments from lobstermen up and down to coasts and delays any further regulations until all available science and data can be considered. **A decision that will have as big of an effect as this should not be done based on old data. Please, I beg you to work with us fisherman, we care for this resource more than anyone.** The most effective way to figure out a solution to the problem is to work together**. A management plan addressing the predation problem in conjunction with increase egg production would be the most effective while allowing fisherman to stay in business.** If after considering all available data it was decided that gauge size increases were still needed that could be done in conjunction with massive increases in sea bass quota for SNE, which made available to harvest by lobstermen would be a huge help in offsetting lost revenue with the bonus of protection the juvenile lobsters we are making so many sacrifices to preserve. **Without taking any measures to control predation any sacrifices we make will go for naught, the hordes of sea bass will devour the juvenile lobsters we sacrificed our businesses for.**

April 6, 2017

Megan Ware

Fishery Management Plan Coordinator

1050 N. Highland St, Suite 200 A-N

Arlington, VA 22201

Dear Megan Ware,

I propose “Option A: 0% increase in egg production “for LCMA 3. We have the largest minimum gauge size of all areas. We have reduced our maximum gauge size also. These conservation measures are having an effect, as our landings have stabilized. We need more time to let the measures we have taken produce the intended results.

If the Board finds that Option A is not sufficient, I opt for “Option B: 20% increase in egg production”.

In regards to management tool, I support “Option A: management tools can be used independently”.

As for recreational fishery, I support “Option A: Recreational fishery must abide by management action taken in this addendum”.

I do not support seasonal closures. They are virtually impossible in LCMA 3. With the number of traps a traditional vessel fishes, a vessel would not be able to remove their gear from the water. The option of leaving the gear in the water unhauled for 3 months would create a problem with regards to whales. A vessel needs to haul their gear at least every 30 days.

On “Uniform Regulations”, I suggest we continue with what we have in place. Let each management area control their own fate.

I support maintaining Area 3 as one management area, specifically not splitting the area into 2 separate areas. This might have unintended consequences. There could be more effort on Georges Bank which might stress that stock. It might also pit fishermen against one another (east versus west).

Although I strongly believe any conservation measure that uses the lobster gauge has the best chance of good enforcement, I do not recommend any more gauge increases or decreases for Area 3. What we catch for lobsters is a very marketable lobster in this size range. We also continue to throw back more oversized lobsters.

My ultimate preference, at this time, would be to continue with the proposed trap reductions for the next 3 years. We definitely need to tighten up enforcement of the trap tag program, somehow. If we need to do more conservation after 2020, we should continue with further trap reductions.

Thank you for considering my comments!

Sincerely,

Marc Palombo

Calico Lobster Company Inc.

Area 3 LCMT member for Massachusetts

Atlantic States Marine Fisheries Council American Lobster Draft Addendum XXV Public Comment

To Whom It May Concern:

The proposal presented by the Atlantic States Marine Fisheries Council (ASMFC) will have drastic negative consequences for the Long Island Sound lobster fishery, and the people who make their livelihoods from it. The proposal suggesting that the season closure start be changed from early September to July or August is unacceptable, as this will interfere with our peak catch season. If there would be any way to extend the *end* of the season closure, say from November to February, this could be more acceptable and would have less of an impact on our fishery. In addition, the proposal to increase the gauge length by ¼" would have a negative cascading impact on the fishery, from those who catch the lobsters, to those who distribute, and the restaurants that rely on locally caught lobsters to keep their prices down for consumers and tourists. By increasing the carapace length minimum this drastically, it would shut many if not all lobstermen out of Long Island Sound. An acceptable alternative could be to make it a $^{1}/_{32}$" increase and then after five or ten years, consider the carapace length regulations again. Further, the addendum notes that predation is a key factor in the decline of abundance of lobster, however, it seems only the lobster fishery and those who work it are being targeted. A license or permit or certificate of permission to fish the black sea bass, which have exploded in their population and thus have been increasingly preying on the lobster, would help balance some of the negative impact of the lobstering restrictions while also helping to lower the numbers of an overpopulated predator. And lastly, whether you disregard all the concerns of those who live and breathe these waters and the lobster fishery, please truly consider making these changes gradual, over a period of five, ten, or fifteen years. We are allies in the conservation of the Sound and the lobsters. We lobstermen not only need the lobsters to thrive, but we *want* the lobsters to thrive. It is impossible to spend so much time on the water and with these creatures and not feel responsible for its stewardship. Please keep us lobstermen in mind, because in the end, we too are here to look after Long Island Sound and the lobsters.

Thank you,

Lobsterman Mike Kalaman

FROM : MUGGYLEE-Roger B.Wooleyhan Jr.   FAX NO. : 3029456579   Apr. 07 2017 10:18AM P1

ROGER 302 542 9417
PLEASE CALL ME! I COULD NOT EVEN BEGIN TO WRITE ALL THAT CONCERNS ME

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APR 0 7 2017
ASMFC

MS MEGAN WARE

AMERICA HAS A BIG PROBLEM!
WEVE LET A GROUP OF SO CALLED COLLEGE EDUCATED EXPERTS DICTATE OUR FUTURE. MOST OF WHICH HAVE BEEN SHELTER FROM THE REAL WORLD. THE PROBLEM LIES IN THE FACT THAT OUR GOV IS TOO BIG TO JUSIFY JOBS CONTINUAL REGULATION OCCURS
WHAT HAPPENED TO THE FOR EVERY REGULATION TAKE AWAY ONE AS TRUMP SIGNED! UNLESS NMFS IS CONTROLED WE ARE LOOKING AT THE DEMISE OF COMM FISH. THEY SAY GLOBAL WARMING IS RESONSIBLE FOR LOBSTERS CRAWLING NORTH, + THAT DESPITE RECORD CATCHE OVER LAST 5 YEARS DOOM IS ON WAY. SO THEY ARE SHOVING THIS XXX DOWN OUR THROAT AND WE MUST PICK BETWEEN HORRIBLE COICES PLEASE
WE NEED HELP! FOR SURVIVAL.
WHO SUFFERS ALSO THE AMERICAN PUBLIC
[illegible] OUR SEAFOOD IS IMPORTED! ~~THEY~~

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ASMFC

MS. MEGAN WARE -

AMERICA HAS A BIG PROBLEM! WEVE LET A GROUP OF SO CALLED EXPERTS "COLLEGE ELITE" DICTATE ~~THE~~ OUR FUTURE. WHAT ~~WE HAVE~~ IS ~~TOO A GOV~~.

THE PROBLEM LIES IN THE FACT THAT OUR GOV IS TOO BIG & TO JUSIFY JOBS CONTINUAL REGULATION OCCURS.

WHAT HAPPENED TO THE FOR EVERY REGULATOR TAKE AWAY ONE ~~NEW~~ AS TRUMP JUST SIGNED? THEY SAY GLOBAL WARMING IS RESONSIBLE FOR LOB CRAWLING NORTH & THAT DESPITE RECORD CATCHES OVER LAST 5 YEARS DOOM IS ON ITS WAY. SO THEY WANT 75% REDUCTION DESPITE RECORD CATCHES

~~WE NEED HELP FROM THESE~~

DIS~~ILLUSIONAL~~

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~~THERE ARE IN~~

WE NEED HELP, ~~OR~~ 302 5429417

~~40,000 POUNDS~~ EACH ~~LAST MAN~~ ~~UP~~

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ASMFC

Name: Patrick J Fahy LLC
Vessel: MAJOR EXPENSE
Commercial: Permit 148280
Yes [x]
No [ ]
State: NY (NJ)
Area: 4
Submit to: Megan Ware mware@asmfc.org Fax: 703.842.0741

Issue 1: Target Increase in Egg Production

- [ ] Option A: 0% increase in egg production
- [x] Option B: 20% increase in egg production
- [ ] Option C: 30% increase in egg production
- [ ] Option D: 40% increase in egg production
- [ ] Option E: 60% increase in egg production

Issue 2: Management Tools

- [ ] Option A: Gauge size changes, season closures, and trap reductions can be used independently or in conjunction with one another
- [x] Option B: Gauge size changes and season closures can be used independently or in conjunction with one another
- [ ] Option C: Trap reductions and season closures must be used in conjunction with gauge size changes; trap reductions and season closures cannot account for more than half of the increase in egg production

3. Recreational Fishery

- [x] Option A: Recreational fishery must abide by the gauge size changes, season closures, and trap reductions taken in Addendum XXV
- [ ] Option B: Recreational fishery must abide by gauge size changes and season closures
- [ ] Option C: Recreational fishery must abide by gauge size changes

4. Season Closures

- [x] Option A: Lobster Traps Removed from Water
  - [x] Sub-Option I: Most Restrictive Rule Applies
  - [ ] Sub-Option II: Most Restrictive Rule Does Not Apply
- [ ] Option B: No Possession of Lobsters While Fishing
  - [ ] Sub-Option I: Most Restrictive Rule Applies
  - [ ] Sub-Option II: Most Restrictive Rule Does Not Apply
- [ ] Option C: Catch Limit for Non-Trap Bycatch Fisheries
  - [ ] Sub-Option I: Most Restrictive Rule Applies
  - [ ] Sub-Option II: Most Restrictive Rule Does Not Apply

5. Standardized Regulations

- [x] •Option A: Regulations are not uniform across LCMAs
- [ ] •Option B: Gauge size changes and season closures are uniform across LCMAs 4 and 5
- [ ] •Option C: Gauge size changes and season closures are uniform across LCMAs 2, 4, 5, and 6

6. Implementation in LCMA 3

- [x] •Option A: Maintain LCMA 3 as a single area
- [ ] •Option B: Split LCMA 3 along 70oW Long.
  - [ ] One time declaration into SNE or GOM/GBK
  - [ ] Mgmt. changes only apply to SNE
- [ ] •Option C: Split LCMA 3 along 70oW Long. w/ added flexibility
  - [ ] •Annual declaration into SNE or GOM/GBK
  - [ ] •Mgmt. changes do not apply to GOM/GBK
  - [ ] •Fishermen who declare into SNE can fish throughout LCMA 3 but are subject to more restrictive management measures
- [ ] •Option D: Split LCMA 3 along 70oW Long. with overlap area
  - [ ] •Overlap zone defined by 30' on either side of 70oW Long.
  - [ ] •Mgmt. changes only apply to SNE
  - [ ] •Fishermen elect to fish in either SNE or GOM/GBK portion of LCMA 3 but all can fish in overlap zone

7. De Minimis

- [x] •Option A: De minimis states must implement all mgmt. measures adopted under Addendum XXV
- [ ] •Option B: De minimis states are exempt from Addendum XXV mgmt. measures if the state meets the following criteria:
  - [ ] •Close the lobster fisheries in the de minimis states to new entrants
  - [ ] •Allow only lobster permit holders of the de minimis state to land lobsters in that state
  - [ ] •Limit lobster landings in the de minimis state to no more than 40,000 lbs. annually

Michael Sarapachillo

110 Easy Street

Howell, NJ 07731

March, 15 2017

Members of the ASMFC:

In response to Draft Addendum XXV I would like to make several comments. As a NJ trap fisherman I feel as if the data for our state is very poor. The only mention of data collected in NJ appears on pg. 8 where 10 sea sample trips were performed. There is an extensive amount of research and data collected for the other states where vent less trap surveys, settlement surveys, young of the year surveys, and habitat surveys have been performed.

The management decisions made for SNE have a real impact on our NJ fishery. I am concerned that we are not properly represented in stock assessment and will suffer more than any other state. We are currently less than 30 permit holders and even fewer full time operators. Basing a reduction for NJ fishermen on the entire range of SNE carries consequences that we cannot support. I feel there is entirely too much room for error when using a 'one size fits all' management. If we can get real data for NJ and work towards establishing a max sustainable yield, then I feel like we can interpret actual numbers and accurately assess our small fishery.

The NJ fishery has already experienced reductions through attrition. The landings provide a reduction of 15% in 2015, 20% in 2014, and 28% in 2013. Since 2012 we have seen a 49% reduction in landings. Our small fishery can only support the natural reductions we have seen over the last several years. I hope that we can achieve status quo for the NJ fishery and continue to fish without any additional management tools as they will make it near impossible for us to run our boats.

When considering the management of the lobster fishery I hope ASMFC considers the impact to the Jonah crab fishery. The wire trap fishery has produced enough Jonah crab to keep our boats working. The crab fishery has a positive impact on the lobster population. The nature of the wire trap can best be described as an integral component that aids in the health of the lobster population. The wire trap fishery provides habitat and food for lobsters and crabs. The sea floor is also protected by the wire trap

fishery because it minimizes the range for commercial draggers. It is worth mentioning that undersize lobsters or lobsters captured during a closed season are released from the vessel and suffer a very low incidence of mortality. Lobster fishermen often tag smaller lobsters with a band around one claw and release them overboard. Exact locations are used to track these lobsters as they move from area to another. Upon recapture these lobsters show no sign of damage.

The wire trap fishery is dependent upon the uninterrupted use of the sea floor. Lobsters and crabs using the same area makes it possible for vessel operators to fish similar areas year after year. The is a lot of variables that can change if the gear is removed. There is a certain degree of respect from the draggers to stay outside of areas used by trap fishermen. If the gear is removed there is no doubt that the draggers will tow through those trap areas. It is well known that the commercial dragger will negatively impact the sea floor by destroying natural habitat used by lobster, crabs, and fish. Unlike the trap fishery, lobsters and crabs captured by the dragger are not released overboard unharmed. Many, if not all lobsters will die from suffocation as a result of sediment being forced into the lungs.

If the traps were to be removed from an area typically used by trap fishermen and the draggers were to begin using the area, many fishermen fear that upon resetting the traps there would be a gear conflict because of the recent shift from traps to draggers and back to traps in that specific area. That specific area would have already suffered habitat destruction and sustained some loss of lobster and crab population.

Aside from the biological hurdles posed by gear removal there are other variable the fishermen cannot control. The time required to move thousands of traps across hundreds of miles of ocean becomes nearly impossible. During the days and weeks prior to closure the boats hope to continue fishing. Even if fishery were not weather dependent the boats need weeks to haul all the gear to a land based facility. The is time that a boat has little opportunity to land product because the hours of the day are spent stacking traps and coiling miles of rope. Many fishermen have nowhere to store hundreds of traps once the boat arrives in port. Much of the NJ coast is overdeveloped and covered in residential areas and recreational marinas, leaving very little room for the commercial fisherman.

I hope to use all my wire traps to continue Jonah crab fishing during seasonal lobster closures.

Sincerely,

Michael Sarapochillo

F/V Mikayla Alexa

F/V D&S Express

F/V Navigator

4/5/17

Roy Campanale
Campanale & Sons Inc.
6 Jennifer Ct
Narragansett, Ri 02882

Megan Ware
Fishery Management Plan Coordinator
1050 N. Highland St, Suite 200 A-N
Arlington, VA 22201

Dear Megan,

My two sons and I own Campanale & Sons Inc., we have 4 offshore lobster vessels that lobster exclusively in Area 3. Our family has been lobstering since 1973. I am also an LCMT for Area 3.

On Issus 1; egg production target
I support option A: Status Quo/No Action

We have not even realized all the benefits of the **FUTURE** trap reductions that are being implemented in the next few years, but management has already suggested we need more regulations put upon the fishery. I believe more regulations are unnecessary for Southern New England Area 3 at this time.

We have already seen the benefits of the **PAST** trap reductions, gauge increases & vent size increases on the Southern New England Area 3 resource. In recent years our landings have increased substantially.

Another way to drive home this point is to look at the lobster fleet in Point Judith RI which fish exclusively in Southern New England Area 3. The condition of the vessels within the Pt. Judith offshore lobster fleet have improved dramatically in the last 3 years. All these improvements that are being made to the fleet are from the direct results of the increase in the landings from just 6 years ago.

On Issue 6; Implementation of management measures in LCMA 3
I support option A: maintain LCMA 3 as a single area Status Quo
I do not support option D: splitting LCMA 3 along the 70 degree Line

I do not believe it is in the best interest of Area 3 to be drawing lines with different regulations on each side of that line, whether it be gauge sizes, trap allocations or closers. Its will shift effort as well be an enforcement & paperwork nightmare!

I suggest we support better data collection of Southern New England Area 3 and lets give the trap reductions not even implemented a chance before forcing more regulations on Southern New England Area 3 Lobstermen.

Sincerely,
Roy Campanale

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MAR 2 8 2017

ASMFC

March 23, 2017

Dear ASMFC Lobster Management board,

My Name is Stephen Larsen. My family Lobstered out of Martha's Vineyard for Generations.

I have 2 sons. One is in the retail marketing of the lobster business , the other is a deck hand.

We care about the future and health of our industry. It is the future of our children.

Last year my wife quit her job to care for her ageing parents. We lost her mom last fall. Now my wife is a full time care giver to her dad.

We have friends facing similar situations thru-out our communities. Many are older fishermen. Few have remortgaged their homes and businesses and we and others have drawn on our retirement funds too early , to make ends meet.

Your decision to cut our income by 25% in one year and 5% for 5 consecutive years rather then, go to another history allocation was cruel to the older sector of the lobster industry. .. Especially given the responsibilities we assume later in life.

I believe there are creative ways to achieve the goals of rebuilding stocks, rather than hurting the fabric of our families. I hope you will take our families into consideration when you make further laws.

Thank you

Stephen Larsen

(508) 645-3039

RS Area 2 SNF

Suggestions I and other Vineyard fishermen have come up with from the 40 plus years' experience with in the lobster industry:

-Winter Closures. We have experienced Around the vineyard's productive lobster grounds a 12 month heavy trap fishing presence for the past 20 years , from larger "mainland" boats. Many of whom crossed over from the Sea Scallop Industry with no prior Lobster Industry experience. Many of whom have benefited from buy out opportunities written into the trap reduction rules. There are very little V notch sightings that should be present with the constant lobster fishing activity. The catches predominately yield 1lb to 1 1/4lb catches with rare 1 ½ lb and up, lobster yield. There would be no sense in a lobster reduction in maximum shell measure as there are no longer larger lobsters being caught.

-History allocations. Though once regarded as a bad law because the many of us that reported honestly where given less trap allocation then those who reported more traps then they actually fished. Now we feel that is the fairest way to reduce the pressure of latent trap deployment. History would preserve the real history lobstermen who truly care about the future of lobster productivity without the burden of addition cost to maintain gear allocations. Win/win.

We from the Vineyard would like to help the ASMFC achieve the goals of a healthy Productive Lobster population for the future of our families and community.

Thank you for any consideration.

Stephen Larsen

(508) 645-3039

RC - SNE

ADDENDUM XXV Public hearing March 22, 2017 Corless Auditorium

Peter E. Brodeur - lobster fisherman since 1979 –Galilee, R.I. – past RILA President – former LCMT member – former Lobster Advisory panel chair to R.I. Marine Fisheries Council – current TRT member for R.I. lobstermen.

The management goal of ASMFC, as stated, in this addendum, I feel it is… and will remain a goal that is impossible to accomplish. I have stated in the past that this approach at addressing the SNE Area lobster problem by focusing on the fishermen is like putting a band aid on a broken leg! The quasi aquaculture way we go about this fishery by providing feeding stations, protection from predation, and creating areas of habitat, makes us outstanding stewards of this resource. As long as the waters continue to warm.. our lobsters will be the canary in the coal mine and that will not be affected by any of this addendum's actions. Having said that I would like to quote a few of my fellow fishermen so as to point how we feared the regulatory future that is now here.

Feb. 2003-QUOTE-"There is a fear of setting a trap allocation as a guideline that will inevitably lead us to closures and other drastic measures that will have irreversible effects that will ripple through the entire industry and its infrastructure, like a storm in winter. And that…..will lead to always needing to sacrifice more to satisfy the regulatory monster that threatening to devour us all!" END QUOTE.

Dec. 2004 Another lobsterman stated that we should wait and see what other areas do first.

March 2005 RILA allocation approval at membership meeting.

Moving quickly forward we have had gauge increases, vent increases, increased predation, area limitations based on historical participation, and of course trap reductions. Some of the above have caused us to spend money and others have limited our ability to gather product. Many of us are getting older and the influx of youth has slowed down somewhat which speaks to more transfers of traps and even less traps in the water due to the transfer tax at each sale. It seems to me that we have downsized the industry considerably at this point. Let's let the trap reductions have a chance to work through as planned. We have worked hard to come this far and with…. a good deal of peer support. This has not been a painless process for many of us.

Speaking to less traps equaling shorter soak times.

The motive for every lobster boat is to be as efficient as is logically possible and keep expenses to a minimum so as to maximize earnings. Hauling traps on shorter sets when fishing for lobster, than we do currently, is a waste of time and money.

Culls is a non starter. What is a cull and how do we identify them. That is different with every dealer and boat. God forbid the deckhand that is a sloppy bander.

Gauge increases will speed the march of the inshore lobster to the offshore fishery. We already have a large population of lobsters that just miss the current gauge, every year, that we never see again. If you will....please refer to the closed vent surveys that have been ongoing for the past few years. There is good data coming out of them that doesn't seem to get plugged in, word of mouth in the industry has it.

An improvement on the enforcement front is always welcome as long as they are educated and up to date on any and all current regulations.

2006 ESCAPE VENT SELECTIVITY TEST
In 2006 Bruce Estrella and Bob Glenn
Mass. Div. Of Marine Fisheries
Dept. of Fish and Game

In the late 1990's, ASMFC Lobster Conservation Management Teams (LCMT's) recommended increases in lobster minimum legal CL in order to meet the egg-production goals of Amendment 3. These proposed increases in minimum CL were approved by the ASMFC Lobster Management Board and were defined in Addenda 2 and 3 to Amendment 3 of the Interstate Lobster Fishery Management Plan in 2001 and 2002. These regulatory changes required a revision to escape vent size recommendations to be compatible with proposed minimum legal CL's.

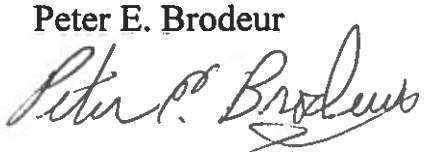
The vent studies done by Estrella and Glen, in the flume tanks, gathered information on escapement by baiting traps with fresh bait and checking them each morning and logging the results. As I recall there was escapement of lobsters over the gauge size of 7-8 percent.... according to them. Now every lobsterman has two pieces of anecdotal information relating to these vent tests. One is that we have observed a higher incidence of escapement on a normal soak. Two is that when we return to haul a trawl and some traps have bait and others don't.....the traps with bait have lobsters and those that don't.....don't. Once again the deck hand gets the

blame! This march to freedom is not a one time event....it is ongoing as we speak.... and should allow for a small percentage of egg production.

I would rather wait and let the other areas "catch up" like my friend said in 2004 but I know that the monster is hungry!

Therefore I opt for option 2 with the caveat that we get what we deserve for what we have accomplished with trap reductions to date 13.1% and trap reductions forthcoming 13-1% and trap reductions from transfers, and for your homework..... something from the escape vent survey!

BON APPETIT !
Peter E. Brodeur



IMEP #62 The New England Lobster Convention of 1903

Habitat Information for Fishers and Fishery Area Managers

Understanding Science Through History

(IMEP History Newsletters can be found indexed by date

Title on the BlueCrab.infoTM website: Fishing, Eeling and Oystering Thread)

The Sound School ISSP – Capstone Series

Do Climate Factors Lead to Habitat Failure?

Climate Change and Habitat Capacity Complicates Policy Discussions

(Readers Should Review IMEP #53 The Southern New England Lobster Fisheries Collapse of 1898-1905 posted on July 30, 2015)

Timothy C. Visel, Coordinator
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New Haven, Connecticut 06519

Revised for Capstone/SAE Proposals, April 2017

ASTE Standards Aquaculture #5 Natural Resources #6, #7, #9

Review the 51 page "Report Upon a Convention Held at Boston, 1903, to Secure Better Protection of the Lobster" by J. W. Collins

Wright & Potter State Printers, 1904 Massachusetts

Two-Day 1903 Lobster Convention Allows Industry Proposals for Lobster Enhancement, Following Shallow Water Die Off

Submitted to the Lobster Management Board – Atlantic States Marine Fisheries Commission April 6, 2017 Public Comment Period LCMTs Prepare Preliminary Proposals (all pages)

Consider Habitat Enhancement (Artificial Reefs) and Lobster Hatcheries as possible response to management option for increasing egg production (survival).

To: Megan Ware, ASMFC

It was very nice meeting you recently at the Old Lyme Connecticut public hearing in response to Southern New England (Lobster) stock decline. Last year a paper regarding the lobster collapse 1898-1905 was included in the public comment section and perhaps this attached paper, IMEP #62 could be added as well.

I started this report after attending the 2016 Maine Fishermen's Forum in Rockland Maine, it had been many years since I could attend a forum and had a great time. One item that did come up in several lobster discussions during the forum was climate, predator/prey and habitat bottlenecks, many of the same issues raised a century ago at the New England Lobster Convention of 1903. This two day convention raised similar issues of climate, predation by fish and "water space" (habitat).

The 1903 convention discussed important issues concerning the 1898 lobster die off that started in the fall of 1898, lobster hatchery science was included and perhaps today habitat enhancement (artificial reefs) and hatchery transplants could be part of the Atlantic States Marine Fisheries Commission Management options. Some excellent research regarding habitat enhancement occurred in Boothbay Maine in the middle 1960s and later regarding the importance of kelp forests to southern New England's lobster resource regarding this issues.

Perhaps lobster hatchery science and habitat enhancement (rubble/kelp reefs) could allow our very much diminished lobster fishery here to continue, offering any assistance to the Commission we may be able to provide.

Tim Visel, The Sound School

Capstone Questions:

Most lobster regulatory policy articles do not include references to the 1898 lobster die off or the 1903 Lobster Convention held in Boston on September 23 through September 24, 1903. On the second day of the convention, the lobster industry was invited in for comment/discussion. Almost all of the industry proposals were later incorporated into policy. Did the previous day's discussions reflect in any of the resulting regulations?

Climate factors and temperature changes were mentioned at the convention but not connected to climate-induced cycles of lobsters. While some fisheries flourished in the Great Heat (1880-1920), such as oysters and blue crabs, others were in steep decline, such as lobsters and the bay scallop. How does the increase and decrease in these fisheries compare to multi-trophic predator/prey, habitat quality or quantity studies today as Maine's lobster catch continues at very high levels and a huge lobster predator (codfish) is at a low point?

Habitat capacity concepts of expansion or compression refugia or dominance were still decades away from fishery management discussions. A larger lobster actually reduces carrying capacity for habitat limited areas and explains the first colonial reports of huge lobsters speared in shallow near shore areas. (They eat their young). Larger lobsters need deeper (colder) habitats and live in the shore only when water temperatures allow, giving the movement of lobsters back to the shallows each spring the appearance of runs – or the expansion or compression of habitats on a seasonal basis. Habitat

enhancement (artificial reefs) was not part of the Lobster Convention discussion but lobster hatchery science was. How did this discussion impact future actions?

All the New England states built lobster hatcheries, including one at Noank, CT. Rhode Island, however, led the country with its development of a lobster upweller and larval culture bags. When the hatcheries were built, the summers were hot and winters mild. The summer of 1898 was so hot that ponds and lakes did not freeze. In 1899, southern New England experienced an "ice famine." It was at this time the ice business moved north to coastal Maine towns, such as St. George, mid-coast Maine, "The ice business in St. George thrived during the 1890's" (Coaster Days by Roy Meservey – Jackson Memorial Library, 1976, Pg. 14). Connecticut had declared brook trout extinct in 1901, but the oyster industry was thriving. Did any of these factors, in your opinion, influence the 1903 Lobster Convention?

Copies of the 1903 Lobster Convention report are available from Tim Visel in the Aquaculture Dept. (It is also available online)

The Lobster Convention of 1903

By 1900, it became evident that New England faced a severe "lobster problem." Inshore southern New England catches especially New York and Connecticut were dropping. By 1902, "the lobster problem" became a regional lobster crisis. The 1903 lobster convention focused on two issues: uniform laws on the size of lobsters for commercial markets and the protection of egg-bearing female lobsters. In the decades before, egg-bearing females were preferred by many chefs, especially those in the Boston area, as eggs went into sauces and stuffing of lobster caviar. Most states after 1850 had enacted stiff penalties for keeping "eggers" and now most members focused upon "shorts," now that each state was warned about its neighboring states well being if different sizes continued. However, it made enforcement of lobster laws tougher if just a few miles away what was a legal lobster was now illegal. Many lobster fishers may recall that Rhode Island had a smaller "legal" size lobster than the rest of New England for almost a century. The capture and selling of short "lobsters" now occupied much of the regulatory response to declining lobster abundance in southern New England. These lobsters had not sexually matured and sublegal lobsters represented a potential recruitment (egg) reproductive loss.

The state of Maine took much of the blame for insufficient enforcement of lobster regulation while recognizing the demand of summer visitors (summer trade/tourism) fueled the demand for lobster meat along its long hard to patrol coastline. In actuality, removing larger lobsters (from the 1820's onward) had altered the natural carrying capacity of the lobster resources in many areas. Lobsters are cannibals, so it is very possible that the fishery had, in fact, created the conditions for shorts to now

become a dominant part of the lobster population. This population because of habitat refugia from larger lobsters lived close to shore. Lobsters can live in excess of a century and crush any competing lobsters for food and space, allowing more (yet smaller) lobsters to live in a defined habitat area. A similar example exists with snapping turtles. Over time, one or two large snappers could exist in a small pond, crushing, killing or driving off smaller snappers, even its own young, unfortunately, until a balance to food and space is reached. Surviving snappers now grew to large sizes and existed within the carrying capacity of the available food. Trap out these large snappers and that would free up capacity for perhaps two or more smaller snappers; trap them and it freed up habitat for 20 to 30 small snappers, all competing for limited space and food. As snappers grew slowly in an area that had been "cropped," smaller turtles were all that could be had. The snapper turtle fishery actually made more space available for more yet smaller turtles. You could see how something very similar could happen with lobsters. There is a reason that the first settler accounts had accounts of speared lobsters a fathom long in shallow waters; they had overtime limited the abundance of other lobsters by killing off the smaller water competitors. In time, you were left with some very large lobsters and many small lobsters trying to live in a habitat area that usually meant death. With the removal of large lobsters, the natural carrying capacity had been altered to favor more smaller lobsters or "shorts." Inshore areas where larger lobsters had held territory, this territory (habitat), were now available for many more lobsters. The trapping of legal size lobsters altered the capacity as well by feeding the shorts. In time, some areas within the small boat range contained all shorts, and if your job was to produce lobsters for the table, it left little choice. As larger lobsters freed up habitat space, the fishery did something as well – it now provided habitat and fed the shorts. Natural food limits had altered carrying capacity again as lobsters entered into a type of "bird feeder" husbandry. We had taken away the "groundskeepers" but now nourished the young as a contingent to fishing – the lobster bait itself.

The 1903 convention focused in on regulation, but in actual fact, climate had altered megalops drift (wind) and survival, carrying capacity had been altered by us, and warmer water reduced storm losses while speeding up growth. Lobsters in Maine were no longer habitat rich and cold water limited, but now habitat enhanced for a faster maturing lobster. In waters where lobsters could still live, those populations were mostly sublegal and surviving, as catch per trap (units of effort) dropped more traps (more food) were set. I would not be surprised that in many areas of our coast then sublegal populations surged as warm waters in southern New England contributed to a collapse of landings while those in Maine brought in many more legal lobsters. In the shallows of the southern range, waters were so warm there was an absence of lobsters of any size. It is these same conditions that govern carrying capacity for lobsters today, a century later, that remain poorly understood – temperature and energy cycles.

While the 1903 convention focused on regulation and lobster hatcheries, a warming climate, changing prey relationship and carrying capacity were not addressed. Maine's landings would continue to hold and then collapse as cod in colder waters now became more abundant. Cod in colder waters devastated the lobster population and reduced habitat capacity to those areas in which cod could now feed. What was good for the cod fishers meant doom for small lobsters, as cleaned cod soon yielded stomachs full of lobster. Any extra carrying capacity was soon lost to a growing population of codfish. Lobster catches in Maine then declined.

A Habitat History

By 1902, the southern New England lobster fishery was in ruin and the U.S. Fish Commission, created in 1871 to investigate the decline of warm water fish (the 1870's would bring incredible cold to New England, including the Connecticut cattle catastrophe of 1873 when exposed milking cows froze in Connecticut fields), saw opportunity in bringing all the states together to discuss lobster regulations, then termed "uniform laws." It was promoted by J. W. Collins of the U.S. Fish Commission and by Dr. George Field of Massachusetts, a colleague and once employed by the same U.S. Fish Commission who provided conference support and eventually its host site, Boston, Massachusetts.

1898 was a terrible year for southern New England fisheries. The summers of 1895 to 1897 had some of the worst heat waves since the Civil War. The bitter cold of the 1870's had now become a distinct memory when temperatures fell as much as 30 degrees below zero for days at a time. The late 1890s were very different.

Connecticut oyster growers suffered a massive sulfide kill in deep water of Long Island Sound beds, asking for a survey in 1899. In September of 1898, Narragansett Bay turned red and then chocolate, as Dr. Mead of Brown University wrote that a "plague" had descended upon the citizens of Rhode Island. In small salt ponds and coves in southern New England, the warm water had numerous fish kills, and some of the worst had black waters, the sulfide overturn that left an odor of sulfur in morning mists. In 1899, the warm waters from an extremely hot summer created an "ice famine." Southern New England block ice producers had no product to sell or store as waters did not freeze all winter.

Into this heat, small lobsters inshore died by the millions as city residents rushed to New England coastlines for the promise of cool water breezes, lobsters left the shallows for deeper waters into the mouths of deeper water predators. It must have been a slaughter. If they could move, many I estimate, did not make it and died in the shallows easy prey for "warm water" fish.

A type of habitat failure occurred, habitat compression. {The term habitat "compression" signals an event that after appears before a habitat failure defined as habitat conditions that no longer are able to support one or more habitat functions, nursery, grow out, maturation or reproduction. For lobsters undergoing compression from high temperatures it is a form of a "blue crab jubilee" detailed in

southern areas and in the fisheries literature when extremely hot conditions with little wind or storm "energy." Sulfide levels from organic reduction build into the water column until organisms (in this case blue crabs flee, and crawl out of the water) are forced to leave the water itself, and thus make for easy catching.

A lobster jubilee is much less noticeable (lobsters rarely are reported to leave the waters) but easy catching is lobster catches in compressed habitats that can be quite high or surge. These events are recorded in landings as described by Dr. Donald Rhoads of Yale in the early 1980s. Rising temperatures can cause sulfide events (such as the loss of Striped Bass nursery habitats in Chesapeake Bay in the 1970s) and for lobsters catches would increase just before a collapse.

Dr Rhodes describes this event in a 1985 Long Island Sound Workshop – The EPA-NOAA estuarine workshop series #3 which brought about 50 Island Sound researchers (both New York and Connecticut) together to discuss habitat, environmental and fisheries concerns relating to Long Island Sound.

NOAA Estuary of the Month, Seminar Series No 3, Long Island Sound Issues Resources Status & Management PG 88-175773 Prepared for the EPA Washington CT January 1997 (Seminar date May 10th, 1989). On page S6 Donald Rhoads of Yale mentions this relationship.

"I want to leave you with an interesting thought about oxygen-organism relationships. Secondary benthic production can be very high in the hypoxic and dysaerobic zones, a phenomenon related to the abundance and high turnover rate of enrichment species that dominate these zones. This production (mainly polychaetes) may attract and support enhanced populations of benthic foagers such as demersal fish and crustaceans. However, as the basinal low-oxygen conditions spread up the sides of the basin, these commercially important predators may be compressed into an ever decreasing aerobic environment. The immediate perception may be one of increased catch per unit effort by fishermen. As a result, maximum commercial yields may be obtained just before there is a crash in the exploited populations. This crash may be related to enhanced fishing pressure, immigration of species from the encroaching hypoxic water and intensified competition for space and food in the diminished aerobic habitat space. These observations are consistent with the general observation that the early to intermediate stages of eutrophication may temporarily increase the carrying capacity of a benthic system." (Pearson and Rosenberg, 1978).

This is the type of situation that proceeded the industry lobster die off in Long Island Sound in the late 1990's just before the "crash" lobster catches soared, habitat compression did occur in waters with more oxygen a Long Island Lobster "Jubilee" but signified a much lower habitat quality.}Larger lobsters moved into cooler waters, and for a while, Cape Cod lobster catches increased. So did the state of Maine while lobster fishers in the south most likely found empty pots, dead lobsters or those diseased, called black tail. In some coastal towns, there were no small lobsters at all, such as Noank, CT once the

Capital of New England lobster trade which “lay in destruction” as catches fell. Into the heat, eelgrass flourished and bottoms turned black. It is important to note that Native Americans may have left clues to previous reversals as Niantic River was once called “Black Bay.” Perhaps an ancient reminder of long ago when shallow waters could turn black (History of New London County D. Hamilton Hurd 1882).

The brutal heat waves of the 1890’s had taken its toll on the freshwater fisheries as well. Here we see the first comments about fishery collapses and habitat failures. By 1900, states saw the failure of brook trout, a native coldwater species. Connecticut in 1901declared brook trout now extinct, started to build the framework for the U.S. Fish Commission trout hatcheries and considered the importation of brown and rainbow trout as being more heat “tolerant.” Some of the first hatchery science in the U.S. was for freshwater fish as the New England carrying capacity for trout declined for a decade. Alewife in this heat also declined sometimes “abandoning” its coastal runs (now suspected by the result of sulfide blocks).

But not all fisheries declined, black sea bass filled the Rhode Island trap nets, blue crabs now surged, and oyster sets covered the shores. Some of the best oyster sets had happened in the 1890’s. In the 1870’s, oyster sets were rare and New England once depended upon “Virginia plants” for seed oysters. When Block Island fishers reported tropical fish and tarpon were caught in Narragansett Bay fishery managers grew alarmed. In 1898 Rhode Island fishery managers now commissioned the Narragansett Bay Biological Survey and that annual survey continues today. A very famous striped bass fishing club, now known as the Cuttyhunk Club, moved its location north three times following huge striped bass that, into this heat, grew to enormous size, yet moved farther and farther north. The first marine experiment station was created to study the decline of coastal fisheries after an immense fish kill in Point Judith Pond, RI in 1897. The first director of this marine experiment station was none other than George Witan Field himself, now working in Massachusetts after leaving the Rhode Island facility in 1901 (See the search for Megalops Blue Crab Forum™, Blue Crab Newsletter, Series #3, posted on November 2015 – Northeast Crabbing Resources, The Blue Crab Forum™ “Rhode Island, Blue Crab Capital.”

With both fresh and saltwater fisheries undergoing rapid change, the U.S. Fish Commission was building federal fish hatcheries (some of these programs continue today) investigating the decline of shad now thought to be the result of high temperature “sulfide blocks.” It was this context that Dr. Field also hoped, perhaps, that uniform laws could stop and possibly reverse the decline of lobster in Massachusetts which had now become a popular seafood menu item for those wishing to spend summers at the shore away from the brutal “hot terms.” Lobster fishers had now “ready markets” along the coast where lobsters were caught, no longer totally dependent on distant markets. The market had now moved to them as the “summer trade” from what must have been seen as a growing “summer population” at the shore. Some no doubt took advantage of this commercial opportunity,

and scrubbing eggers (once a prized delicacy) and cooking "shorts" for fresh lobster meat for shore visitors was a problem as was the impacts of factory waste pollution that putrefied in slow moving streams. Overharvesting, impact of pollution and climate change would all "seats" at the lobster convention of 1903, which fishing area managers hoped would finally bring uniform lobster regulations to New England; it was not to be.

The Lobster Convention of 1903: A Missed Opportunity to Review Climate Change, Prey Relationships and Lobster Habitat Carrying Capacity

Was a decline in lobsters from overfishing or from climate? This question overshadowed the entire 1903 conference, and Rhode Island, which had several large fish kills in the 1890's including one in Narragansett Bay, put forth the strongest climate change questions.

"The ever varying conditions that exist on the surface of the earth doubtless exist in as large measure at the bottom of the ocean, in that part occupied by the fish. Just what effect is produced by the changes we will not attempt to solve at this time." Rhode Island Commissioner Southwick states "We cannot well control the effects produced by nature, hence all that can be done, if anything, is to restrict the catch by man." (Pg. 12)

That belief became pervasive in fisheries management and was to hold for over a century, what can do about nature, delaying or dismissing critical predator/prey, carrying capacity, and climate cycles' impacts studies to the lobster fishery. In other words, the conference attempted to give nature a "free pass" for the lobster die off of 1898, which now continued. But some felt otherwise, and the Rhode Island Commissioner, Mr. Southwick, later read a paper to the convention that included this section: [My comments are in brackets, T. Visel]

"For ourselves, we think that only calculations of the inhabitants of the great deep, which ignores the fluctuations caused by nature, very fallacious" and further we ask here to be allowed to quote from Professor Baird (First Director of the U.S. Fish Commission) in his estimate of the number of fish destroyed upon our coast by blue fish at 10 billion daily or the number of menhaden so destroyed at 3 billion (daily) in the summer months. He also says this calculation might be pursued to any extent, but I have presented enough to show that the question of human agencies in the way of affecting or influencing the great ocean fisheries is scarcely worth considering." And Mr. Southwick continues "True every lobster taken causes a reduction, but the question is as to the measure of the reduction. It must, to be effective, be beyond their power of reproduction. This is the question of most importance relating to the legal control of the lobster fishery." (Pg. 40)

"So general and fixed is the belief in the efficiency of this method [controlling human catch efforts – T. Visel] that very much money and effort is continually being put into it, even though no apparent success follows, and within certain limits all are willing to acquiesce in it as on experiment, but some appear to wish it anyhow, successful or not, with these we cannot agree." (Pg. 41)

These were strong words from Rhode Island to the conference that was designed to put forth a "unified effort."

It is easy to read between the lines as J.W. Collins issues a stern rebuke to the Fisheries Commissioner, Mr. Southwick from Rhode Island, who later raises the issue of habitat carrying capacity to a species already known for its ability to eat each other – "water space" is referred to as habitat quantity and capacity as to control populations because they eat their young and each other. Today we would call these "space" issues as artificial reefs. According to Commissioner Southwick:

"… the great difficulty in the propagation of lobsters is in having the water space large enough under natural conditions to put them in after they are raised to the third or fourth moulting. Their home is in the ocean, and to find a space large enough that they can have control of is very difficult in a small State like Rhode Island. That is the difficulty in the rearing of lobsters for commercial purposes. The great destruction of lobsters, as I saw from the little experiments I had myself, was when they are in a confined space. They eat one another and fight like tigers. It is hard to get them distributed through the water and get them separated. The motion of the water in the breeding apparatus keeps them separate, but if they had a large space they would separate without the motion." (Pg. 14)

From: Our Changing Fisheries, USAPO, 1971, NOAA (In press as a US Fish & Wildlife Service Publication) on page 459 includes this reference:

"Current investigations include improving propagation techniques and living conditions for lobsters in their natural environment; one promising technique for improving lobster abundance is the construction of artificial reefs and burrows using such objects as tile pipes. An artificial reef was constructed in Boothbay Harbor in 1966 observations by a scuba team revealed a dramatic increase in the lobster population. By December 1967, lobsters utilizing the new reef and increased in number until they were six times as abundant as an adjacent natural grounds."

J.W. Collins, who co-chaired the conference, believed that overfishing was an industry condition, and New Jersey, although not invited, was mentioned.

"But the conditions that confront us today had confronted New Jersey, New York, Connecticut and Rhode Island, and may sooner or later present themselves to our friends in Maine." (Pg. 43)

{In other words, the die-off was suspected of spreading to the north but not detailed as such T. Visel}.

Commissioner Collins, whose opinion the convention valued, believed the increase in Maine's lobster catches was from an expanding winter fishery in the north (not climate related). Because of the bias at the time to seek out human causes, Collins dismisses the increase in Maine's catches as southern New England's catches declined from warm waters (Pg. 39). Winters were now open, warmer fish conditions improved as areas became ice-free – this was not mentioned at all! No one, it seems, mentioned on expanding the winter fishing season as a result of changing climate conditions that now made winter fishery possible.

"The distinguished commissioner from Maine finds that during the past three or four years, there has been a gradual increase in the yield of the lobster fishery of Maine as shown by carefully compiled statistics that have been gathered by his deputies. This would seem to indicate that there has been an increase in the abundance of the lobster. If not, why this increase in the catch? It is not necessary to seek far to find the cause," and this was the cause according to Collins was a winter fishery.

As Collins explains: [My comments are in brackets, T. Visel]

"The recent remarkable advance in the price of the lobster, especially accentuated in the winter, has led to the employment of a larger number of men and a still larger number of pots for the capture of lobsters. Also, whereas the lobster fishery was formerly pursued only six or seven months in a year, possibly eight months in extreme cases, it has gradually become customary in these recent years for the fishermen to pursue their industry throughout the year, thus fishing about 40% of the time longer than they used to. Besides this, the winter fishery has led to the exploitation of new grounds. Now the boats sometimes go out ten or fifteen miles from land to fish, and fully investigate fishing grounds that they did not venture to visit five or six years ago. Thus, the area of available bottom resorted to has been doubled. This has led to a slight increase in the Maine catch from year to year for the past four years [I believe the rapid rise started in 1898, the year that the Narragansett Bay die off, known as "the

plague," occurred and detailed by Brown University's Dr. Mead, T. Visel] because more and more of the hardy fishermen have taken up winter fishing each year recently [This period saw open winters, shorter "ice on" days and in 1899 New England weather was so warm an ice famine occurred. T. Visel]. But so far as showing any increase in the general abundance of the lobster, the contrary is true, for as already stated, there is a pronounced scarcity of lobsters on many of the inshore grounds where they were formerly present in large numbers."

[This is, of course, a form of high-temperature habitat compression lobsters leaving the shallows as determined by Rhode Island Narragansett Bay tagging studies] (See IMEP #53, The Southern New England Lobster Fisheries Collapse of 1898-1905)

In actual fact, "winter" fishery was occurring because the climate conditions from the 1870's had in time changed; it was warmer in New England and few strong storms during the Great Heat 1880-1920. That was, in essence, correct; a widespread decline had happened in the southern New England states and most noticeably in shallow waters. But conference attendees gave little review to climate conditions (This would change in two years as Rhode Island officials grew alarmed when Tarpon was caught in Narragansett Bay in 1905 with the combined incredible rise in eelgrass and the blue crab). The demand for lobster meat, mentioned several times in the conference report, came from summer visitors but made no mention of the reasons why large numbers of them sought to escape from city killer heat waves and disease outbreaks themselves, mostly tuberculosis, which spread fear and loathing to what was called "the hot term." (See appendix about Sanatoria). In this heat and dry summers, forest fires increased and coldwater brook trout had "vanished." While the lobster population collapsed the oyster industry grew rapidly in the same waters in which lobsters were disappearing, such as Narragansett Bay. No one mentioned the ice failure of 1899 just four years before the convention. And what about the blue crab, from minor importance in the 1870's, Noank, CT and Buzzards Bay, MA once thrived on inshore lobster fisheries soon found a new "blue" crustacean inhabiting its shores, the now abundant "southern" blue crab? The Great Heat of 1880-1920 for southern New England and 1890-1915 for northern New England saw oysters and blue crabs extending ranges far to the north as compared to the 1870's. Maine's rivers started to have again widespread oyster sets, which now spread into the Canadian Maritimes by 1910.

In these summer heats, black water fish kills increased, alewife and shad runs diminished and cod moved to northern cooler waters. All these factors contributed to a transitioning climate period, a warm stable coastline period with few storms. These climate shifts did not enter the discussions. As

the heat moderated in the late teens and winters became colder, codfish returned in greater numbers and now found millions of small lobsters, prime food just waiting for the return of cod its chief non-human predator. The catching of larger lobsters enabled the natural carrying capacity to be moved far to the right of more yet smaller lobsters, ready to eat meals for codfish now poised to recapture lost habitat ranges. The heat would bring lower codfish catches declining in 1908 and drop to its lowest point about 5,000 metric tons in the gulf of Maine in 1915 when it started to cool in the 1920's, codfish catches recovered. This most likely contributed to lower lobster catches as cod now found an important forage base to help rebuild its population. It is important to note that cooler temperatures bring adult cod closer to (Pg. 173) shores and into habitats of small lobsters. In the spring of 1879, for example at the end of a decade of very cold New England temperatures, 11,000,000 pounds of codfish were caught in Ipswich Bay by local fishers (Bigelow & Schroder 1953, Pg. 193) and that the most prevalent bait used to catch cod was the soft clam (Pg. 196). As waters cooled, lobster growth slowed, and Maine's lobster catches tumbled while those in the south slowly recovered. With the clash of colder polar air sinking south, it energized coastal lows and it is during this period that small lobsters were cast upon the shore to die. Storm intensity and frequency increased ripping out eelgrass meadows in the 1940s, which dominated shallow habitats between 1880 and 1920 and replaced it with cleaned cobble stones and then kelp forests, a great habitat for those lobster areas in southern New England. The 1950's and 1960's saw the lobster recapture "lost" habitats at the turn of the century in southern New England.

And the blue crab which increased so rapidly at the turn of the century - it was now retreating into the warmer and shallower salt ponds and rivers. Here organics (Sapropel) allowed it to dig in and survive the winter but by the 1950s and 1960s at the height of a negative Northeast Atlantic Oscillation (NAO) colder waters and less Sapropel and blue crab populations ended in may areas.

With all the information on climate patterns today from numerous sources, we should take a look at climate factors again influencing lobster stocks in New England, including habitat quality and quantity in the southern range.

The Lobster Convention of 1903 would challenge most of the assumptions of fishing impacts if a broader resource viewpoint was considered. Herrick, who had published a major study of the lobster in 1895 (he did not attend the 1903 convention), provides information on lobster carrying capacity on Cape Cod, notes that the Provincetown, Cape Cod and that the fishery started at 1800. By 1865, a marked decline had occurred; citing "Rathbun" "The Cape Cod lobster fishery has been at a low

standing for many years, and although but few men have enjoyed in the fishery of that region for a long time, there are, as yet, no signs of improvement." (Pg.22)

Now compare that to the statement from the same location in 1903 [The Lobster Convention of 1903] the Cape Cod fishery was improving. "Last year, 1902 the lobster fishery on Cape Cod never was better," pg 45. It is important to note that industry and lobster fishers were invited and did not participate in the first day regulatory discussion on September 23, 1903, but included only in the second day, September 24, 1903 the wrap-up session at 2:15 p.m. and largely gave the convention almost all of the measures for conservation and protection adopted for consideration in the final report [T. Visel] = use of a larger escape vent such as utilized by area lobster fishers on Cape Cod, a requirement has state permits, suggested uniform sizes (all states) and that lobsters be marketed live in the shell. Dr. Field supported the use of hatcheries and the conference becomes divided. "It was not found practicable for the committee to agree on any other recommendation for laws, which should equally apply to all the lobster producing states. In regard to the plan (hatcheries) advanced by Dr. Field, the convention was impressed with the idea that the experimentation had not been carried far enough to take the matter beyond the plan of theoretic, and therefore scarcely safe at this time to risk an entire change of the system of lobster protection". In other words, the construction of lobster hatcheries would continue and accelerate {CT approved funding in 1904 for the Noank lobster hatchery.}

Natural History of the American Lobster H.F. Hobart

and Consideration of Water Temperatures

Would the convention of 1903 unify states to regulations or admit a climate/natural factor was a part of the decline? In the end, they decided to do both, protect the egg bearing females v-notch/gauge laws and invest some additional hatchery resources to raise stage 4 when it has a much larger chance to grow. Releasing the fry most likely fed increased Black Sea Bass, which surged in abundance during the Great Heat 1880-1920. (p. 376) Bulletin of the Bureau of Fisheries (1909, Document #47) told of the movement away from releasing lobster fry (megalops stage) to rearing lobsters until they reached stage 4.

"It further shows that the method of hatching the eggs of this animal and immediately liberating its young is ineffective, because of the meager results which can come from it. On the other hand, it speaks loudly in favor of a law to protect the large egg producers (regulation gauge v-notch), and of the newer plan of rearing (lobster hatcheries) the young to the bottom seeking stage (stage 4), as the only means pisciculture (old term for Aquaculture) can hope to aid this fishery materially."

The Natural History of the American Lobster – Bulletin of the Bureau of Fisheries Vol. 29, 1909, Document #47, Issued July 13, 1911

History of the Lobster Hatcheries

Did the 1903 lobster convention accomplish what conference organizers hoped for? No, it did not. If anything, it brought a strong rebuke from Rhode Island, which felt smaller lobsters increased habitat capacity (it did increase the gauge, actually reduces capacity for those species that are cannibals) and that weather (climate) conditions influenced the survival of young lobsters (Rhode Island's view would be largely supported by looking at climate energy and temperature cycles).

What we can do, in retrospect, is examine the lobster hatchery records themselves; they often contained habitat observations, such as the Wickford Rhode Island Lobster Hatchery reports.

We have a chance to look at an entire series of lobster hatchery reports from the Lobster Hatchery Reports from Noank, CT (Some of these reports are now posted on-line by the University of California at Berkeley). This quote is from the State of Connecticut Report of Fish and Game Commissioners 1911-1912: from a lobster fisher of the last century –

GUILFORD {CT} "The marked increase of small lobsters is very gratifying and is sufficient proof that the hatchery is one of the greatest institutions in the State, and I shall do all I can to help the Commissioners of Fisheries and Game in the protection and propagation."

In the end, what conference organizers had hoped to occur with unified lobster regulations did not happen. Lobster fishers continued to mention observations of no shorts at all. In 1904, as southern Connecticut lobster fishers continued to report a near absence of shorts in shallow waters and diseases (called black tail), a consensus formed around an artificial lobster culture of the stage 4 lobsters. Rhode Island had a major aquaculture breakthrough with its larval upweller in Wickford, Rhode Island and developed the concept of a hatchery stocking process, releasing stage 4 into an algae bottom cover.

Massachusetts would continue to push the regulatory agenda and issued a 200 page report titled "The Lobster Fishery: A Special Report - Suggestions for Unified Laws in 1911, mostly from D. George Field's point of view. Massachusetts would, in time, open a lobster hatchery on Martha's Vineyard. The Boothbay Lobster Hatchery in Maine operated for nearly half a century. Eventually the cost of heating the seawater, it was felt, outweighed the benefits. Lost in the cost discussion, it appears, was the fact that seawater temperatures over time had gotten cooler and therefore cost more to heat.

In summary, all the states that operated lobster hatcheries should make these reports available to the lobster community, fishers, shippers, those involved in retail and wholesale businesses, and finally the seafood consuming public.

While the concept of overharvesting has followed the lobster fishery for more than two centuries, this latest die-off has occurred under excellent regulations. In fact, raising the gauge again will actually make the resource recovery harder (my view). Additional competition for food and space by raising the gauge does not ensure habitat quality or quantity.

In addition to the lobster hatchery efforts of the 1900's, fishery area managers suspected but did not know for certain the relationship of kelp/cobblestone to the survival of the key stage four for juveniles. They did not follow the cycles of vegetation as it compared with young of the year habitat quality. We have some excellent kelp/cobblestone habitat studies to support habitat enhancement itself, the construction of low profile "rubble reefs," which grow kelp and could help provide stage four lobsters with "new space." (See recruitment habitats and nursery grounds of the American Lobster Homarus americanus a demographic bottleneck? Wahle /Steneck 1991). We could, in fact, build more

habitat capacity with artificial reefs, and we should proceed with both these site location reef efforts and investigate hatchery efforts – my view, Tim Visel.

The Southern New England Lobster Die-Off of 1898

The Lobster Convention of 1903

SUMMARY

The Lobster Convention of 1903 did not accomplish what it was intended to do, which was to unify regulations in the Maritimes including Canada. In fact, in many ways, it was an introduction to climate cycles. Maine presented data in which its lobster catches were now increasing. Maine, Rhode Island, and Canada pointed to nature and environmental factors as guiding lobster populations. The southern New England states and its fishery managers at the time were frustrated by these comments, thus the section from conference proceedings written by Joseph W. Collins:

"The distinguished commissioner from Maine finds that during the past three or four years there has been a gradual increase in the yield of the lobster fishery of Maine, as shown by carefully compiled statistics that have been gathered by his deputies. This would seem to indicate that there has been an increase in the abundance of the lobster. If not, why this increase in the catch?"

States reporting catch increases were not what conference organizers had anticipated. In reports at the time discussed a unified regulatory approach about sizes as "shorts" were a problem, especially areas in northern New England and in the Canadian Maritimes where a number of short lobsters had risen dramatically. The 1903 Lobster Convention transcripts record this frustration as representatives of several states mentioned climate factors and that, in some regions, lobster populations were in fact increasing. Nova Scotia, Canada felt that it was climate and was preparing for sector management; lobster biology conditions for the north were different than those in the south. Others at the convention agreed. Rhode Island felt it was the impact of temperature and strongly opposed additional regulation upon the industry. Some good rules happened, releasing eggers and trap escape

vents. Rhode Island supported seasons, and did so in 1904, but reversed itself in 1905 as having no effect. Maine continued to press the point that as the lobster populations continued to die off in the south, lobster catches in the north were increasing and Canada was preparing individual management zones. Each area was climate different and was to be considered for lobster management separate. So instead of unifying regulations, Canada was poised to establish different rules for each section of its Maritimes. Mr. Southwick of Rhode Island read a prepared statement that concerned dramatic water temperature warming as a natural impact – and referenced Spencer Baird, the U.S. Fish Commission Director himself, who also felt climate cycles deserved a closer look with temperatures before enacting additional regulations – Southwick of Rhode Island comments:

"What is the cause of diminished size and decreased numbers? Admitting that both are true, these are important matters in the settlement of the very great questions how to stop a reduction and how to cause an increase of lobsters in our waters. If we can determine the cause we can better arrive at a conclusion as to what will be a remedy, as a doctor first diagnoses his case before attempting to apply remedies. Heretofore, remedies have been tried with no better result than generally follow quack practice. Restrictive laws have not sufficed to increase the numbers of lobsters, and we should be very glad could we know that artificial propagation had been made a commercial success. We would be the last to say a word to discourage the efforts made in artificial aid to nature in every way it may be applied to the lobsters or any other of our fisheries. There has been so much accomplished that we have great hopes of much more in the future. The importance of the object aimed at justifies all the effort that may be made and any expenditure of time and money it may require." …

"Yet there is another peril, which we have not mentioned —the diseases to which they are subject, for we cannot believe they are immune from what attacks other forms of life. The ever-varying conditions that exist on the surface of the earth doubtless exist in as large measure at the bottom of the ocean — in that part occupied by the fishes. Just what effect is produced by these changes we will not attempt to solve at this time."

Additionally, Mr. Venny, the speaker from Ottawa, Canada was reported as saying:

"First, I desire to tender the thanks of the Department of Marine and Fisheries of Canada for the opportunity my colleague, Mr. Bertram, and I have of being here today, and the benefit we have

received from the information given us by gentlemen of the different States. But of course we are here in a rather peculiar position. We will gladly give you the benefit of anything we know. If we in the Dominion have done something, which seems better to you than you have been able to do, we will be very happy to explain those points to you. But I don't think we can undertake to join in any agreement you may make about the sea and shore fisheries. Of course the lobster is a peculiar animal, and each country and perhaps each State must deal with it according to the needs of their respective localities.

Professor Prince in 1896 wrote: — "In the Dominion of Canada there remains the last great lobster fishery of the world, and it is not too much to say that this fishery has reached a critical stage."

"From time to time since 1873 restrictions have been imposed upon our lobster fisheries. As long ago as 1877 the necessity for sectional close seasons was recognized and admitted by Canadian legislation; and, although changes have since been made in the dates and geographical divisions, the principle has not only been maintained but greatly extended, inasmuch as at present there are no less than seven different close times."

"The question of a uniform close season has been open to much argument in the past, and the records of the department reveal that scarcely a season has passed without concessions, based on geographical and climatic conditions in different districts."

"I notice nothing has been said here to-day leading to the idea that you have any close seasons for lobsters. It seems that you are satisfied with attempting to save the lobster by the size limit. We go farther in that respect. We have seven sections in the Provinces having close seasons varying from eight to ten and a half months. We regard that as very important. We put berried lobsters out after the close season comes in force and after the open season is over, and therefore we think they cannot be caught again until the next open season. The close season with us is really the most important factor in the regulations."

"Lobsters are climatic. The difference in the legal lengths permitted by our regulations is explained in this way." (Collins, J., Report Upon A Convention held at Boston, 1903, to Secure Better Protection of the Lobster, pp. 18-22)

For the fishery management efforts, the conference was not accomplishing what fishing managers had hoped. Scarcely a season has passed without concessions "based upon climate conditions in different districts." In fact, the 1903 Convention had done more to identify differences of opinion and climate questions based upon temperature than uniform laws. It must have been frustrating for convention organizers as attempts to unify regulations across large regions were failing. I think Dr. Field carried more than J.W. Collins ever realized to the convention and if I may read between the lines to "Dr. Fields' plan," George Wilton Field brought his personal experience as well to what habitat failure meant to inshore fishers; Dr. Fields was familiar with 1897 Fishkill at Pt. Judith Pond of Narragansett, Rhode Island. It was here that a growing land grant agricultural school we know today as a University of Rhode Island opened up the first marine laboratory in 1898 – staffed by Dr. Field. He was also in Rhode Island to see the beginning of the lobster die-off detailed by Dr. A. D. Mead of Brown University in Narragansett Bay itself. (An Investigation of The Plaque Which Destroyed Multitudes Of Fish And Crustacean During The Fall Of 1898 – November 18, 1898 issue of Science Magazine Vol. 8 #203.) Seeing these types of sulfide/low oxygen fish kills in the Southern New England was for different than the cooler, oxygen-rich shores of Maine. Blackwater events were rare in Maine (except those rivers obtaining pulp from lumber mills or paper factories) and storms killed many more lobsters in shallow water then black water. I feel after reading, the convention meeting summary was written by J.W. Collins, perhaps Dr. Field felt that this situation alone could not be solved by unified regulations and why perhaps his experiences would begin a lifelong support of Aquaculture? In many books today, Dr. Field is mentioned as the "Father of Aquaculture" and that interest possibly be traced to the lobster die-off of 1898.

The climate of southern New England was hot but warmer waters had increased lobster catches to the north. This difference was not easily explained and led to further division. Rhode Island, for example, felt a smaller lobster is more suited in its region and would have its own legal size lobster for 70 years. Maine would develop a double gauge and the v-notching of lobsters. Massachusetts and Connecticut moved to uniform laws. All, however, built lobster hatcheries.

In the end, New England states all soon had operational lobster hatcheries, realizing that it was perhaps not all a "regulatory solution." Something had happened to the "shorts" and fishery officials, even those who supported stricter laws, eventually supported the construction of lobster hatcheries. What had happened was beyond just better laws.

I have been asked many times recently if the “Aquaculture” lobster hatchery efforts a century ago – helped the lobster industry rebuild. I believe they did. The same question could be asked of Agriculture, “Does it help raise food?” The quick short answer is “yes,” but one can have the best soil pH, the most expensive seed, and a proper nutrient balance, but if it does not rain, “all is lost.”

That is what farmers and fishers face, the uncertainties of nature itself. Today we call it cycles; long ago it was “feast or famine.”

We should not ignore the fact that turn of the century hatchery efforts coincided with a growing negative NAO phase – the climate conditions favorable for lobster megalops to stage four improved in the 1940’s and 1950’s (See NOAA Climate Prediction Center North Atlantic Oscillation – NAO Index since January 1950). It got colder. As kelp beds grew in southern New England, lobster recruitment now improved. By the late 1950’s in a cooler climate period, these hatcheries were nearly all closed. The warm waters of the 1890’s had turned cool once again. While the hatcheries were active, however, the lobster fishery continued.

I respond to all emails at tim.visel@new-haven.k12.ct.us

Appendix A

New England Climate Conditions after 1864

492 – Boston Medical and Surgical Journal – May 3, 1906

Dr. William Ogle has shown that fishermen, who are from the nature of their occupation, exposed to the greatest amount of moisture in the air and surroundings, have the lowest death rate from respiratory disease, and that occupations necessitating an indoor life the highest, where presumably they are more protected from dampness and the vicissitudes of weather. The late Dr. Abbott of our State Board of Health conclusively demonstrated tuberculosis to be essentially an indoor disease and

the outdoor treatment is our so-called damp and cold (The New England Journal of Medicine, Vol. 154, Pg. 491).

The incidence of tuberculosis, an infectious bacterial disease primarily of the lungs, once called consumption, soared after 1898, as cities felt the burden of outbreaks resulting in the construction of sanatoria for "fresh air" after reports were circulated such as the above after 1906. Sanatoriums were often built on lakes and by the sea. The Catskills in New York became the location of the first sanatorium for the treatment of tuberculosis. In 1930, the State Commission on Tuberculosis would purchase the Smith-Crimes estate in Waterford, CT and became a "Seaside Sanatorium" until the use of streptomycin made such establishments unnecessary. For half a century, people with tuberculosis would seek out salt air, believing it had curative powers. This belief of "salt air" continued far into the 1950s and 1960s. The estate is now scheduled to become a state park.

Appendix B

United States Commission of Fish and Fisheries

47th Congress First Session, Document 124, Part 3

Geographical Review of the Fisheries -

R. Edward Earl 1883 – Print Date 1887 GPO

New Jersey Northern Coast, Pg. 391

[My inserts/comments are within brackets T. Visel]

Northern New Jersey The Southern Limit of the Lobster Fishery

"Lobsters are found all along the New Jersey coast, but not in sufficient numbers in its lower half to warrant the fishermen in engaging in their capture. The lobster fishery of the state is therefore confined to its northern portion or to the region lying between Sandy Hook and Squan River, this being the southern limit of the lobster fisheries of the United States. The fishermen of northern New Jersey have been engaged in the capture of the lobster for many years, and about 1860, the fishery is said to have been quite important [This represents a much cooler period but increasing warmth in the 1860's – T. Visel]. From that date, the business gradually declined [This is the warming influence – T. Visel] until, in 1870, the capture of the species was almost wholly discontinued. In 1872, the fishery again to revive [This explains the impact of bitterly cold winters most likely created cold waters along the shore – T. Visel] and at present time large quantities of lobsters are taken in the region" [The 1870's had some of the coolest temperatures in perhaps several hundred years. The winter of 1873-1874 was so

cold, minus 20oF or lower for days that apple trees froze and cattle in unheated barns died in Connecticut – T. Visel].

In 1880, there were fourteen boats with twenty-eight men engaged regularly in the capture of lobsters in connection with their work in the line and net fishery, the catch being sold in New York and Philadelphia and partly to the local trade. The pots, which are covered with netting, are usually set in May [about the same temperature range as the July "run" on the Long Island Sound – T. Visel] and the fishing continues until October, though a few men begin fishing early in March, and others fish until the last day in November [Also, the fall/early winter "run," usually around Thanksgiving in Long Island Sound, can be almost as large as the July "run" but of much shorter duration – T. Visel].

Appendix C
State of Connecticut --Report of Fish and Game Commissioners
1911-1912
Commissioners:
Frank W. Hewes, M.D., President
Groton, Connecticut
E. Hart Geer, Secretary
Hadlyme, Connecticut
Frank O. Davis
Pomfret, Connecticut

Lobsters. Through enactment of the Legislature of 1905, the propagation of the lobster was placed in control of this Commission. Previous to this little or no attention was given to lobster protection and none to artificial propagation.

The statistics collected by the United States Bureau of Fisheries in 1908 shows there were TEN persons pursuing the occupation of lobster fishing at Noank. In 1902, your Commission issued thirty-two permits for persons to engage in the lobster fishing. This number does not include quite a number of persons who confine their fishing operations in New York waters, but who live in and bring their product to Noank, and who take out no permit from this Commission.

The Acts of 1907 require lobster fishermen to furnish statistics of the fishery, and we find, at that time, 247 people engaged in lobster fishing, with a product of 391,203 pounds of lobsters, valued at $56,475.00. The statistics for 1912 show 498 permits issued by the Commission. The produce

amounting to 514,579 pounds of lobsters at a value of $76,986.00. This increase, perhaps, serves as an index to the extension of the fishery.

- Connecticut Lobster Fishery Observations 1911-1912 -

NEW HAVEN.—“ Not many lobsters this year. There is quite a few small lobster. No egg lobsters have been caught in three years.”

NIANTIC.—“Lobsters scarce; more small ones than last year.”

MADISON.—“ I have noticed a large number of very small lobsters the whole season for taking in deep water. Egg lobsters are quite plentiful now, and these I find in shoal water close to the shore.”

MYSTIC.—“ Large lobsters have been very scarce. Small lobsters from four to seven inches long have been plentiful.”

GUILFORD.—“ The marked increase of small lobsters is very gratifying and is sufficient proof that the hatchery is one of the greatest institutions in the State, and I shall do all I can to help the Commissioners of Fisheries and Game in the protection and propagation.”

EAST RIVER.—“ A large number of very small lobsters.”

BRANFORD.—“ Early in the season lobsters seemed to be plentiful enough, but towards the end they became scarce. there are a lot of undersize lobsters in this vicinity which I think will be of size next season. Most of these seem to be perfect and not injured in any way. These undersize lobsters seem to stay in one place.”

CLINTON.— “Small lobsters have seemed more plentiful for the last two seasons, but it may be because there are fewer big ones. Little ones are not apt to get into pots when there are large ones around.”

COS COB.—“ Large quantities of small lobsters this year. More than usual.”

ROWAYTON.—“ I found plenty of small lobsters, but the large ones were scarce.”

NOANK.—“The Sound off Noank was full of small lobsters all summer, from two to four inches long.”

STONY CREEK. —“ I find a large number of very small lobsters the past two years of a size that I have not caught at any time previous to last year. Have fished lobsters about 18 years. My report includes last fall after the report was sent in, as I lobstered to December 1st.”

WESTBROOK.—"There were lots of small lobsters. Should be better next season."

WATERFORD.—" The lobsters were more than last year. There have been more small lobsters this year than I have seen before in eight years, so it looks more encouraging than it was for four years. Lots of small ones."

STONINGTON.—" Lobsters were few, that is large ones, but there were a large number of short ones and a large number of them from five to seven inches long."

STAMFORD.—" I have found lobsters very scarce. Plenty of small ones not fit to sell."

Report of the NOANK Lobster Hatchery 1911-1912

Noank Station. In procuring the eggs for the operation of this Station the same general policy has been pursued as heretofore, by purchasing the adult lobster with the egg attached. These were collected from the fishermen the entire length of the coast, who are paid the full market price. After the eggs have been removed and placed in the hatching jars, the parent lobsters are returned to the waters of Long Island Sound, as near the same locality as possible from which they were taken.

During the biennial period, 1,474 ripe egg lobsters have been collected, from which 25,585,990 eggs were obtained, resulting in the hatching of 22, 750,000 fry which was planted in the coast waters.

During this same period, there were also collected 1,586 green egg lobsters, making a total of 3,060 egg-bearing lobsters collected, of which number 1,586 were held in cars during the winters, and the balance, 536, were returned to the water.

In the seven years of the operation of this hatchery, 208,761,870 fry have been hatched and liberated.

The lobster fishery in the State of Maine is the largest in the United States, and nearly 14,000 egg lobsters were collected the past season for the Federal hatchery at Boothbay Harbor. This is the largest collection ever made in one season. Conditions in the other New England States indicate a material decrease in the egg lobster collections with a corresponding reduction in hatcheries output.

The Noank Station* was visited by a representative of a foreign country who showed much interest in the hatching operations at this station. Your Commission supplied several adult lobsters to the Wickford Experiment Station* in order that this representative could observe the practical methods as conducted by the Rhode Island Commission.

[Note - *

These were often referred to as Marine Experiment Stations modeled after land prototypes, The Agriculture Experimentation Concept. The NOANK and Wickford stations operated the lobster hatcheries - Tim Visel]

Twenty-eighth Report of the
Commissioner of Sea and Shore Fisheries
of the State of Maine: 1903 - 1904

The U. S. Fish Commission has assisted this department by making collections for a part of the season in the western section of the State waters. It has also secured an artificial saltwater reserve in Lincoln county and is experimenting in the keeping of lobsters therein, awaiting transportation to the hatchery, and for other purposes of observation and investigation under natural conditions.

The following report for the two years 1903 and 1904 shows the magnitude and importance of this duty performed by the "Sea Gull," and it will be interesting to learn as to the collection and dispersing of the lobsters, and millions of fry hatched from them and returned to our waters. Account of purchase from fishermen of egg-bearing lobsters, and disposition for the year 1903.

Number purchased from March to November 30 14,173

DISPOSITION.

Transported to U. S. Hatchery at Gloucester, Mass., for scientific investigation and propagation of eggs: 1,925. The lobsters were later returned and liberated in Maine waters. Impounded at the U. S. Reserve in Bristol, Lincoln County to be cared for by U. S. officials: 6,801. These were in the following spring taken to the Gloucester, Mass., hatchery, the eggs hatched, and the mother lobsters all returned and liberated near the place of purchase. Number liberated at time and place of purchase 5,447

The young hatched from the above eggs were cared for at the Gloucester hatchery and were subsequently brought here and deposited to the number of 32,700,000 eggs, as will appear by reference to the following table for 1903.

LOBSTER FRY PLANTED IN MAINE WATERS, 1903.
Date of Plant Number fry planted Point of Deposit 1903.
June 5 1,200,000 Casco Bay, near north shore, Great Diamond Island.
June 10 1,500,000 Portland Harbor, In cove northwest of Portland Head Lt. Casco
June 11 1,500,000 Casco Bay, in a cove near the south shore of Mackey's Island.
June 12 1,500,000 Casco Bay, in a cove near the north shore of Cushings Island.
June 13 1,500,000 Casco Bay, east side entrance to Fore River.
June 15 1,500,000 Casco Bay, south shore Clapboard Island.
June 16 1,500,000 Casco Bay, Diamond Island Cove.
June 17 1,500,000 Casco Bay, near north shore Half Way Rock.
June 19 1,000,000 Maine Coast, off Cape Porpoise.

June 19 1,000,000 Maine Coast, north shore, Wood Island.
June 19 500,000 Maine Coast, south shore, Small Point.
June 19 1,000,000 Maine Coast, east shore, Pemaquid Point.
June 19 1,000,000 Maine Coast, Port Clyde, near shore.
June 19 1,500,000 Casco Bay, nearshore, Back Bay.
June 21 1,500,000 Maine Coast, Rockland Harbor.
June 20 1,500,000 Casco Bay, southeast shore, Peaks Island.
June 22 1,500,000 Casco Bay, near east shore Cushings Island.
June 23 1,500,000 Atlantic Ocean, off Kittery Point.
June 24 1,500,000 Atlantic Ocean, off York Harbor.
June 25 1,500,000 Atlantic Ocean, off York Harbor.
June 26 1,500,000 Atlantic Ocean, Kittery Point, off Whaleback Light.
July 2 500,000 Gulf of Maine, Richmond Island Harbor.
July 2 500,000 Gulf of Maine, Wood Island Harbor.
July 2 500,000 Gulf of Maine near south shore, Kennebunkport.
July 3 1,500,000 Casco Bay, at Diamond Island Bar.
July 7 1,000,000 Delivered to A. R. Nickerson for distribution, 333,000 to each,
July 7 500,000 Vinalhaven, Stonington and Cranberry Island. Boothbay Harbor, near Cape Newagen.
Total fry planted on Maine coast. 32,700,000

Account of purchase by this department of egg-bearing lobsters, and what was done with them for the year ending November 30, 1904.

Number bought from November 30, 1903, to November 30, 1904, 16,076
Number taken to the U. S. Hatchery at Gloucester, Mass. 1,646
Impounded at the reserve at Bristol, and subsequently taken to the hatchery 8,638
Number liberated at time and place of purchase 6,232
Quite a number of lobsters were caught and re-purchased. 1903 1904
Number punched 2d time 396 310
Number punched 3d time 18 35
Number punched 4th time. 9 7
Number punched 5th time — 1

For the information of those interested I will state that when a lobster is purchased, before being released a small hole is punched in the middle flipper, thus it will be understood that in 1903, for instance, nine lobsters were released, being marked with five perforations in the flipper, and in 1904 one was decorated with five punch-holes before liberation.

The lobsters taken to Gloucester as above to the number of 10,284 were after the eggs were hatched, returned and liberated. Young lobsters hatched from the eggs to the number of 53,950,000 were subsequently distributed in our waters along the shore.

RECEIVED

APR 0 3 2017

ASMFC

Lobster Draft Addendum XXV

Thomas Biesiadecki <tomymarlin@gmail.com>
To: mware@asmfc.org

Sun, Mar 26, 2017 at 11:34 AM

To Atlantic States Marine Fisheries Commission,

My name is Thomas Biesiadecki and I am the owner and operator of the F/V Marielle Renee (Federal Permit #241238). I am Federally permitted to fish in LMCA's 4&5. I am writing to express my concerns over the newest addendum(XXV) to Amendment 3. My concerns are primarily with data collection in a small portion of LMCA 2 and how it is used to determine policy for thousands of square miles of ocean encompassing LMCA 4&5 for which there is little or no data. My concerns are with the proposed attempt to increase egg production and the process with which data is going to be collected and analyzed in a timely manner. I fear that this is just another futile effort to correct a situation that is driven by climate change and its advocates. There is currently not enough effort in LMCA's 4&5 to constitute any further action as compared to the effort that is being put forth in LMCA's 1&3. I also have a few questions concerning the data on egg production and the collection of it. First I would like to know, How many eggs are currently in LMCA 4&5 and how do you arrive at that statistic. There certainly has to be a base line from which a proposed regulation and it's anticipated outcome has to start from. I would also like to know the method for which data will be collected on the production of eggs going forward and how often that will be monitored.

In response to the proposed addendum (XXV) and the seven(7) issues that are expressed in the addendum, I feel that the economic impact that this addendum will impose on myself and my fellow fisherman here in New Jersey is reason enough to proceed with caution and take this idea of increasing egg production slowly. If not for the simple reason that the data is incomplete and no scientist in their right mind would jump to a conclusion with out sufficient data. Going forward I would like to see the ASMFC make an informed decision through collective efforts(i.e. sufficient data from LMCA's 4&5 in regards to egg production) with all states associated with this addendum. Not just push another fruitless addendum through because of a deadline that a few years down the line yield similar results as the last twenty four(24) addendums have done.

The only true facts come from us the fisherman who have been immersed in the lobster fishery in New Jersey. The current regulations for areas 4&5 require us to remove traps from the water for the closed seasons, which can take over a month to remove and a month to reset in essence removing us from the fishery for up to three(3) months. Which in turn eliminates are ability to take part in the Jonah Crab fishery further imposing economic hardship on our industry. I feel that this stipulation in the current regulations be removed so that we can participate in the Jonah Crab fishery and when the lobster season opens we are able to return to work in a timely matter so our families don't have to suffer. It is without hesitation that I again point out the lack of sufficient data that comes from the areas of LMCA 4&5, and for us to allow this addendum to proceed without significant changes in the way data is collected for our area is ludicrous. It is in my opinion that the addendum should remain status quo until there is steps put in place to insure proper and sufficient data collection can be made part of any change to regulations going forward.

Concerned

RECEIVED

APR 0 3 2017

ASMFC

Name: THOMAS X BIESIADECKI
Vessel: MARELLE RENEE 241238
Commercial:
Yes [x]
No [ ]
State: NY (NJ)
Area: 475
Submit to: Megan Ware mware@asmfc.org Fax: 703.842.0741

Issue 1: Target Increase in Egg Production

- [✓] **Option A:** 0% increase in egg production
- [ ] **Option B:** 20% increase in egg production
- [ ] **Option C:** 30% increase in egg production
- [ ] **Option D:** 40% increase in egg production
- [ ] **Option E:** 60% increase in egg production

Issue 2: Management Tools

- [ ] Option A: Gauge size changes, season closures, and trap reductions can be used independently or in conjunction with one another
- [✓] Option B: Gauge size changes and season closures can be used independently or in conjunction with one another
- [ ] Option C: Trap reductions and season closures must be used in conjunction with gauge size changes; trap reductions and season closures cannot account for more than half of the increase in egg production

3. Recreational Fishery

- [ ] Option A: Recreational fishery must abide by the gauge size changes, season closures, and trap reductions taken in Addendum XXV
- [ ] Option B: Recreational fishery must abide by gauge size changes and season closures
- [✓] Option C: Recreational fishery must abide by gauge size changes

4. Season Closures

- [ ] Option A: Lobster Traps Removed from Water
  - [ ] Sub-Option I: Most Restrictive Rule Applies
  - [ ] Sub-Option II: Most Restrictive Rule Does Not Apply
- [ ] Option B: No Possession of Lobsters While Fishing
  - [ ] Sub-Option I: Most Restrictive Rule Applies
  - [✓] Sub-Option II: Most Restrictive Rule Does Not Apply
- [ ] Option C: Catch Limit for Non-Trap Bycatch Fisheries
  - [ ] Sub-Option I: Most Restrictive Rule Applies
  - [ ] Sub-Option II: Most Restrictive Rule Does Not Apply

5. Standardized Regulations

- [✓] •Option A: Regulations are not uniform across LCMAs
- [ ] •Option B: Gauge size changes and season closures are uniform across LCMAs 4 and 5
- [ ] •Option C: Gauge size changes and season closures are uniform across LCMAs 2, 4, 5, and 6

6. Implementation in LCMA 3

- [ ] •Option A: Maintain LCMA 3 as a single area
- [✓] •Option B: Split LCMA 3 along 70oW Long.
  - [ ] One time declaration into SNE or GOM/GBK
  - [ ] Mgmt. changes only apply to SNE
- [ ] •Option C: Split LCMA 3 along 70oW Long. w/ added flexibility
  - [ ] •Annual declaration into SNE or GOM/GBK
  - [ ] •Mgmt. changes do not apply to GOM/GBK
  - [ ] •Fishermen who declare into SNE can fish throughout LCMA 3 but are subject to more restrictive management measures
- [ ] •Option D: Split LCMA 3 along 70oW Long. with overlap area
  - [ ] •Overlap zone defined by 30' on either side of 70oW Long.
  - [ ] •Mgmt. changes only apply to SNE
  - [ ] •Fishermen elect to fish in either SNE or GOM/GBK portion of LCMA 3 but all can fish in overlap zone

7. De Minimis

- [ ] •Option A: De minimis states must implement all mgmt. measures adopted under Addendum XXV
- [ ] •Option B: De minimis states are exempt from Addendum XXV mgmt. measures if the state meets the following criteria:
  - [ ] •Close the lobster fisheries in the de minimis states to new entrants
  - [ ] •Allow only lobster permit holders of the de minimis state to land lobsters in that state
  - [✓] •Limit lobster landings in the de minimis state to no more than 40,000 lbs. annually

3/26/2017

To the ASMFC commissioners,

I am a lobsterman out of Northport, NY and my area expertise is the the western narrows of LIS. There are some large flaws in the data involving actual habitat temperature and so called bottom temp of this area. I participated in the study simulating effects of climate of long island sounds physical environment and living marine resources. From that participation, I recognized the flaws in CT Trawl study data which happens to be the largest body of temp data for LIS. The so called bottom temperature is taken ½ meter off the bottom. This may be relevant for finfish, which is part of the trawl study, but for lobster it creates an error. The lobsters they catch in the trawl are out foraging for food. They will head back to their burrow after the trip. SO WHAT IS THE BURROW TEMP? The question needs to be asked and studied by any competent fisheries manager trying to understand a lobster and its response to heat stress. The term "temperature refuge" is used by ASMFS articles. In the western LIS we have a well -known non migratory stock. How have any survived the recorded "bottom temp" from the historical data of the CT Trawl study? The data I have indicates that the error of the off bottom temperature taken in that study vs the actual on bottom temp increases as the water temp moves from the 50's towards the extremes. This is to be expected with the constant ground temperature that exists throughout this area. Actual burrow temp should follow that separation even more. There are tens of millions of people who have stuck their toes in the bottom and felt the cool as they pressed deeper or swam through cool pockets of calm water near sediment shorelines in late summer. Both are classic examples temperature moderation from pore water circulation. The ASMFC with all their long winded wisdom now needs to explain to these people how they never chose to understand the ways a temperature sensitive burrowing animal takes advantage of the thermal exchange from pore water circulation in permeable sediment. There is far more science on this subject than all of the lobster science put together but it has been ignored coast-wide by lobster research. One current model for thermal exchange from pore water, called MATTSI, puts the saturated sediment at constant temperature 10 meters deep. For the LIS area the ground temp is 54 degrees F, which is very close to the mean of the seasonal water temperature extremes. Looking at the geology of LIS there is more water in the saturated sediment under the bottom at around 54 degrees F than over the bottom. Fresh pore water discharge from long island may also be saturated in oxygen. Here are the forces moving the pore water circulation 1;fresh pore water discharge and the circulation down into the bottom of salt pore water nearby joining at the discharge, 2; tidal forcing, 3; current forcing over uneven bottom and slopes, 4; wave action. These combine to be massive forces driving circulation. (An image search of "submarine groundwater discharge" gives a list of cartoons linked to a few studies). The Raritan clay is the upper confining layer for the deepest aquifer discharging into LIS. The extent of the Raritan is in CT water off Northport, NY and generally follows the south bank of the deepest trenches in LIS and continues through the race to Nantucket.

In reality, the effect of temperature extremes is that the lobsters need to spend more time in the burrows. Here is where food supply becomes essential. The further the lobster has to go from the thermal refuge habitat of their well- placed burrow the more exertion and temperature related stress they endure, as well as a greater opportunity for predator attack. Lobstermen have followed them the area they have chosen for best refuge and bring nutritious fish to their front door. Let me make the statement that my biggest concern is for the welfare of the juvenile lobsters. They eat the meal and depart back to the burrow. They are not accounted for in the plan to capitalize on a fortunate large larval survival. (As a note to the 22 C "mortality" threshold in the document is cold reared data. SNE should be 24 C threshold. NOAA has been taking daily thermal images of SNE area for decades. 1981-2000 average high surface water temp 26 C) Without the juveniles surviving the 30 sheds to become part of the SSB, we have accomplished nothing. Western LIS is well documented to have mature females at 55m CL. We had something like F90 at 3 ¼ " gauge size back when we had the big populations. Now we have two year classes of females mature while sub legal sized. In western LIS the egg bearing potential of the sub legal lobsters is massive but not being brought to fruition with present fishing effort. The trap is not just a unit of negative effort it is a vital feed station. This needs to be understood by anyone trying to help the lobster. Some data from when the American lobster was studied for aquaculture in the 70's has the juveniles eating 10 % of their body weight a day. Molt death syndrome from poor nutrition was also discovered. It is interesting that aquaculture studies suggest keeping the water at 20-22 degrees C, considered the harmful range in the wild. Every study of growth at higher temperatures for lobster states the importance of food. The massive baiting of a competitive, profitable fishery changes the behavior of the lobster. They become less aggressive with constant plentiful food, congregate more and mate almost completely. The so called natural diet of limited, hard to find food creates aggression and hoarding of available food by the larger dominant lobster. Blue mussels, one of the supposed staples of the natural diet, are located in beds in shallow water. Striped bass, tautog, and plentiful black sea bass all congregate there ready to take advantage of the opportunity to eat a lobster. The juveniles are bite size for all these fish. This is extremely relevant to the mortality of the juveniles. In Maine studies show a large percentage of the diet of the lobster population is trap bait and fish diet increases the growth in lobster by 14-16%. The massive crop of the late 90's in SNE was supported by baiting by lobstermen. That was a tremendous effort. The management decisions after the collapse served to reduce the incentive to bring bait to the resident lobsters. This caused harm. If the ASMFC did a comprehensive study they would find that ANY management decisions that reduce the easily available supplemented nutrition to the lobsters do nothing to help the long term stability or growth of the population. Simple economics downsizes the industry more than enough in any downturn. That is the dilemma we are left with. If we are to try to take advantage of any natural boost in egg survival we need to consider the next step. We need to reduce the mortality of the juveniles by making the effort to bring food to them when they congregate in the limited space of the thermal refuge habitat. They will be stronger to make it through the dormant time at the temperature extremes and also be more social and allow more dense population of the select refuge habitat.

A gauge increase is the simple solution to the goals of your flawed model. However, it causes less baiting because there is a tremendous expense of money and effort to supply the bait and the reduced catch makes it unaffordable. Trap reduction reduces the feed stations. Closed seasons at a normal feeding

cycle is the worst possible idea because it deprives the juvenile population of easy access to necessary nutrition especially important in higher water temperatures. When the ASMFC makes decisions that are harmful in the long term are they held accountable? We need to accept the reality of warmer waters and understand how best to help the lobster. The major flaw in your model is that it gives no credit to the benefits that a baited trap provides in recruitment. The nutrition subsidy in a legally vented trap allows five year classes of juveniles to forage quickly and come and go as they please. Berried females can get a good meal and will be released when the trap is hauled. The few that we can take are the price of this benefit. A trawl net simply takes and provides no benefit. That is exactly how your model describes a trap. When you finally make the adjustment to credit a trap for recruitment benefits your models will start to actually resemble the ecosystem that exists. When the correction comes to the failed management policies of the present era we will look back at this as an example of what to never do again. The American Lobster population has become dependent on the subsidized food from the trap fishery and using the same management methods as wild finfish is a failure. The only finfish that have a subsidized diet are in pens.

Tor Vincent

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MAR 2 8 2017

ASMFC

3-24-17
Box 768
CHILMARK, MA. 02535
508-645-9698

Lobster Management Board,

Concerning new possible regulations to area 2 lobstermen , I would like to add the following comments.

First of all, I have been lobstering since 1962 while in High School. (with the exception of a year in Viet-Nam, 1969-70) . Thru the years there have been ups and downs with 1977 and 2003 being the worst years. Otherwise catches per trap have been fairly steady .

I fish out of Menemsha on Martha's Vineyard out of a 35' L/B. I fish alone as most of us here do. I have had the same boat since 1980 . We fish from Gay Head, to Nomans and South of the Vineyard to the West approx. 3 to 12 miles off. Also Coxes Ledge to 30 fathoms depending on the time of year. I lobster year round but only fish 100 pots in winter (400 in season,before the cuts).

I see no need to add new regulations . We see many young lobsters in our traps (from 2 -4"). Also larger shorts just under the gauge, as well as many egg bearing females. We try to leave the smaller ones in the pots since throwing them over means they will be eaten by Sea Bass or Dogfish of which I have never seen so many of. This is a major problem (Dogfish, and the huge population of Sea Bass).

One major issue is the larger boats from N. Bedford and Rhode Island lobstering in our area. They maintain 600 to 880 traps by buying up trap tags and licenses as they are cut back. All of us from the Vineyard are fishing less and less gear as we cannot afford to buy more tags due to the high price. (this due the reduction of traps). If everyone were able to fish say 300 – 400 traps this would be very beneficial and maintain a level playing field. We would all be the same and that would certainly keep more lobsters in the ocean. Boats should not be allowed to fish 6-800 traps period. Its just not fair in this area.

We have large fast Rhode Island boats fishing right up to our three mile line just killing us with too many traps.They use a smaller escape vent on the side of the traps (maybe 1 ¾") and put the 2" legal vents in the door (on the top) where it is harder for the smaller lobsters to get out. Sometimes these boats are just throwing over the same short lobsters over and over. The legal 2" vents should be required to be placed down low on the ends or sides of the trap.

We still V-Notch our egg bearing females and see the results by the amount of v-notched lobsters we catch. We throw the larger ones back as required. (this should be the same from Maine to N.Carolina.) The big ones are the breeders. Maintain the 5 " rule everywhere.

Just to repeat , we seem to maintain our catch level per trap year after year . We see lots of shorts and eggers as well as the very small lobsters that apparently the scientists do not see.

Wayne V. Iacono, F/V Freedom, Box 768,Chilmark,Ma 02535

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APR 0 3 2017

ASMFC

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Name: Michael Scapolito
Vessel: Mikayla Alix / Navigator / D&S Express
Commercial:
Yes [x]
No [ ]
State: NY (NJ)
Area: 3/4/3/4
Submit to: Megan Ware mware@asmfc.org Fax: 703.842.0741

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Megan Ware

From: Barbara Pavia <paviabarb@gmail.com>
Sent: Saturday, April 08, 2017 8:22 AM
To: Megan Ware
Subject: Comments on: Atlantic States Marine Fisheries Commission Draft Addendum XXV to Amendment 3 to the American Lobster Fishery Management Plan

Follow Up Flag: Follow up
Flag Status: Completed

Comments on: Atlantic States Marine Fisheries Commission Draft Addendum XXV to Amendment 3 to the American Lobster Fishery Management Plan

From what I can tell the data was captured mainly from areas know to already have problems such as the long island sound.

It also does not seem to take into account the closing of area 4 and 5 for the Month of May for the last 2 years. Since we do not know what that has done in regards to the stock I feel this seems very premature to be taking on this level of action at this time and allow an additional 2-3 years of data to see if there really is any impact. That is another reason that I think each area should be treated differently and based on data from their area only.

Additional studies need to take place in the various areas, and perhaps there is not just one solution for all areas.

Issue #	Issue Description	Option Chosen	Reason
1	Target Increase in Egg Production	Option B: 20% increase	If as I suspect you will not listen to holding off judgment until data can be collected in areas and seeing how the 1 month closure has worked. I would request the lowest increase of egg production with a re-evaluation in another 2 years.
2	Management Tools	Option A: Management tools can be used independently	I would suggest that gauge increase and trap reduction be considered, and not a season closure
3	Recreational Fishery	Option A: Recreational Fishery must abide by management action taken in Addendum	

4	Season Closures	Option C: Limit for non-trap by catch fisheries Sub-option B Most restrictive rules will not apply	Understanding that fisherman will be so impacted by these changes I would think it is important to allow some small concessions are made to allow them a minimum salary
5	Uniform Regulations	Option A: Regulations are not uniform across LCMAs	I think that Area 4 and Area 5 should be independent from each other and from other areas as there is not real data yet and more studies need to be conducted
6	Implementation of Management Measure in LCMS 3	Option A: treat Area 3 as a single area	
7	Management Action in De Minimis States	Option 1: State must implement all management measures adopted	Option 2 does not seem to benefit a state holder license at all so there really is no other option but 1

Thank you

Joseph Pavia

Megan Ware

From: Paul McDonald <paulmv@comcast.net>
Sent: Friday, April 07, 2017 4:43 PM
To: Megan Ware
Subject: Sne stock

My name is capt Paul McDonald owner operator F/V shearwater menemsha Martha's Vineyard.
Why should there be any more management "tools"
My catches have increased the last three years.
We have no data from 2016 25% trap reduction and now more cuts coming?
I'm one of a very few lobsterman left on the island and one of the last fisheries that can actually make a living.
I have two teenagers that work on my vessel in the summer.
Any of the proposed tools will put us all out of business.
I've been fishing my entire life and to see good catches is so encouraging.

Please address shell disease problem and stop blaming warming waters.
Thank you
Capt Paul

Sent from my iPhone

Megan Ware

From: Chad Simoneaux <chadgulfshrimp@yahoo.com>
Sent: Friday, April 07, 2017 2:43 PM
To: Megan Ware
Subject: DRaft addendum XXV

In regards to addendum XXV . As a lobster wholesaler in the state of Connecticut we are opposed to any gauge increase as this would cause a drastic loss of business for us and our wholesale customers. We purchase Connecticut legal chic, quarter and small cull lobsters from Maine all year. The possession law on a gauge increase would affect us directly as most off our sales are in Connecticut. Thanks

Chad Simoneaux

Gulf Shrimp Company
240 Atwater Street
Plantsville, CT 06479
Work 860.628.8399
Cell 860.538.5575

Megan Ware

From: Michael Theiler <lobster.mike@yahoo.com>
Sent: Friday, April 07, 2017 2:33 PM
To: Megan Ware
Subject: Lobster Draft Addendum XXV Public Comment

I fully support "Status Quo" for Area 6. Any other option or combination of measures will cause irreparable economic harm to the lobster fishermen in both Connecticut and New York. I have personally spent over a half a million dollars in the last three years to accumulate federal permits to allow me to continue to actively participate in other fisheries only to find myself facing exclusion in possibly the squid and skate fisheries. The scup managers are proposing shortening the summer period-when inshore boats get a decent price and have better access to the fish. The Black Sea bass population has continued to move north yet the northern states do not have enough quota to ensure us a fishery. This madness needs to stop because the entire process is broken. Until the economic plight of the fishermen in Area 6 is either addressed or mitigated the only option is "Status Quo".

Michael Theiler
F/V Jeanette T
New London CT

Sent from Yahoo Mail for iPhone

Megan Ware

From: tonyzen@earthlink.net
Sent: Friday, April 07, 2017 1:57 PM
To: Megan Ware
Subject: Lobster Draft Addendum XXV Management Alternatives

Follow Up Flag: Follow up
Flag Status: Completed

Dear Senator Boyle and Atlantic States Marine Fisheries Commission

Regarding the Lobster Draft Addendum XXV Management Alternatives I absolutely believe DEC should implement OPTION A: Recreational fishery must abide by the GAUGE SIZE CHANGES, SEASON CLOSURES, and TRAP REDUCTIONS.

Natural Habitats need time and space to thrive healthy in their environment.
Without Option A natural systems do not need get a break from human intervention to replenish healthy populations.

Option A is what Long Island needs.

Sincerely
Antonio Diaz

Megan Ware

From: Gail Hornfeck <ghornfeck@gmail.com>
Sent: Friday, April 07, 2017 12:47 PM
To: Megan Ware
Subject: Lobster regulation

No more lobster regulations for Maryland Sent from my iPhone

Megan Ware

From: wharfrat06@gmail.com
Sent: Friday, April 07, 2017 8:56 AM
To: Megan Ware
Subject: Comment on Addendum XXV

Good Morning Megan,
My name is Ben Whelden and I am a full time Area 2 lobsterman out of Woods Hole, Ma. My family's sole income comes from my ability to fish for lobster full time. I was at the meeting last month at Mass Maritime but I wanted to write today to let you know that I am not in favor of any further restrictions on us at this time. The data that you guys provided clearly shows that the catch is going up considerably from year to year with a reduced effort. The numbers are as plain as day and this data has been compiled without even taking the current gear reduction into consideration. So I'm asking you to please wait until 2022 when you can review the data from the trap reduction plan to see if that provides you with the goals that you are seeking in regards to recruitment and stock rebound. There are thousands and thousands of egg bearing females in the area that I fish and maybe they should be tagged and tracked to see if they're returning yearly to drop their eggs. I have several research collaboration ideas that could benefit your efforts as well as our future and would love to work with anyone willing to help us save our industry for the sake of our ability to continue to fish for a living full time. If you guys impose any further restrictions at this time it will be the end of us and I will no longer be able to provide for my family. I will lose my boat, my house and my financial future will be ruined. Thank you for your time and consideration in this very important matter. Please feel free to pass my contact info to anyone that you feel might be interested in collaborating efforts to save our fishery.

Best.
Ben Whelden
508 524 3838
Wharfrat06@gmail.com

Sent from Mail for Windows 10

Megan Ware

From: rbsword3@comcast.net
Sent: Thursday, April 06, 2017 11:24 PM
To: Megan Ware
Cc: heidi@offshorelobster.org
Subject: Addendum 25

Dear Megan, I'm definitely opposed to the 70 degree split of area 3 . In the past few years we have seen a major increase in egg bearing female lobsters of all sizes from sub legal to 5-6 lbs . We fish as far south as anyone in the SNE area 3. I really think that the stocks are recovering and we are in need of realtime data that shows this . I would also like to see the trap cap be able to brought back up after reductions to 1800 traps.. Truthfully I wouldn't be building a new boat at the moment if our industry was it trouble!!! Thanks you for the chance to comment. All the best..Rob Burcaw F/V Two Dukes. Sea Isle City , NJ

Sent from my iPhone

Megan Ware

From: Newairnine <newairnine@gmail.com>
Sent: Thursday, April 06, 2017 6:36 PM
To: Megan Ware
Subject: "Lobster Addendum XXV".

To: Megan Ware,
Atlantic States Marine Fisheries Commission

Dear Ms. Ware:

As a recreational scuba diver, I support
Issue 1- Option B,
Issue 2- Option B,
Issue 3- Option C,
and Issue 5, Option B.

Please do not institute a three month Summer closure.

Thank you,
L. Carey
newairnine@gmail.com

Megan Ware

From: Brendan Adams <fibfab25@yahoo.com>
Sent: Thursday, April 06, 2017 4:21 PM
To: Megan Ware; Beth Casoni; Dana Pazolt; Mark Leach
Subject: Lobster Draft Addendum XXV Public Comment

Dear ASMFC Members and Staff,
Please accept email as my official public comment on lobster draft addendum XXV. Given on going trap reductions in area 2 combined with increased landings, I see no reason to impose new regulations, rules, or laws in this lobster management area for at least fives years after the final year of the trap reduction. I have never been to a fisheries meeting where all the fishermen agreed on everything together for the most part as the one held at Massachusetts Maritime Academy in March of this year regarding this subject. It would be irresponsible as fisheries managers to impose new regulations with out even fully understanding the impacts of management measures that are still being implemented, and then giving them at least 5 years with new stock assessments to see their impact. To repeat myself, I am in favor of the current status quo in this issue, no new regulations at this time.

Sincerely,

Brendan Adams

Megan Ware

From: Don DeBerardino II <dondnanuk@gmail.com>
Sent: Thursday, April 06, 2017 4:18 PM
To: Megan Ware
Subject: Lobster Draft Addendum XXV

Please accept my comments on the Lobster Draft Addendum.

As an Area 2 fisherman I support the Rhode Island Lobstermen's' Associations', the Massachusetts Lobstermen's Association and the Atlantic Offshore Lobstermen's Association and the position of the commercial lobster fishing industry through thier comments.

I did attend the hearing in RI and although I did not comment then, I would like to add some of my concerns and comments.

1) Water temp rising-this is a study done in Buzzards bay,it should be done in the ocean whereas the average depth of the bay is 25' not like in the ocean where we fish in water depths of over 100'.

2) Water quality-way to many chemicals dumped into Narragansett bay etc, killing lobster larvae before it can become a marketable lobster.

3) Do not include Area 6 into SNE stock assessment.

4) Predation is at a ALL time high ,Sea Bass,Dogfish seals etc.

5) NO Gauge increase !!! This will NOT save the lobster BUT surely will kill the inshore fishery.

6) NO season closure

Thank you

Don DeBerardino II

Area 2 lobster fisherman

Megan Ware

From: Crustaceansteve@aol.com
Sent: Thursday, April 06, 2017 4:02 PM
To: Megan Ware
Cc: Stephen Celeste
Subject: (no subject)

Hello Megan,

My name is Stephen Celeste, i am an area 4 and currently inactive area 3 lobster fisherman. Where i fish, we have a significant predatation issue with ocean pout, which is causing a very high rate of mortality in the juvenile lobster population as well as large lobsters during the molting season. This species has been closed to harvest since approx 2003. The species has exploded and ive seen large pout spit out 2 juvenile lobsters when i take them out of the lobster pots. I throw back a thousand or more in a single day and they are wrecking havoc on the lobster population because of not being able to harvest them. The pout fishery was only supposed to be closed for a few years but has been closed for over 10 years now. Opening this fishery would help increase the lobster population which in turn would enable more lobsters to reach egg bearing age. I would like to ask you to consider this as an option to help the lobster resource recover as there isnt a way for us to do anything about the other main problem we have which is climate change.

Another thing i would like to say is this: is the lobster population really in trouble? Yes water temperatures are important in general, however overall landings in the united states are increasing, the range of the species is moving further north and offshore, further restrictions on the southern range of the lobster fishery is only going to further put more lobster fisherman out of business. please open the ocean pout fishery and let this be our management tool. ive looked at the charts of active permits and as you can see as many as half of the fisherman as there were 10 or 15 years ago are still here today, please dont wipe out the rest of us.

thank you,

Stephen Celeste

issue 1 option A
issue 2 option A
issue 3 option A
issue 4 option B no possession of lobsters while fishing
issue 5 option A
issue 6 option A
issue 7 option 1

permit # 242493

Megan Ware

From: JARRETT DRAKE <jarrettcdrake@verizon.net>
Sent: Thursday, April 06, 2017 1:48 PM
To: Megan Ware
Subject: Addendum XXV Comments

Follow Up Flag: Follow up
Flag Status: Completed

Dear ASMFC Lobster Board,

I have been an Area 2 lobsterman out of New Bedford, MA for the past 32 years. I have seen the good times, and I have seen the bad, both before the 90's peak and after. The late 90's was an anomaly for us, and I feel it represents an unrealistic goal to achieve again. Fishing now in Area 2 has been quite good for the past few years. Very good, actually, and the landings reflect that. The problem seems to be in the other inshore Areas that aren't doing well. Area 2 has always been on the forefront of active management, and we currently have the most restrictive management measures of all the SNE Areas. Maybe that is why we have so many lobsters now, far more than any of the other inshore Areas that resisted management.

With that being said, I strongly oppose any future management on Area 2. *Issue 1: Option A: Status Quo.* Now, in my 32 years of fishing, I have never seen Management actually chose "Status Quo". There is an issue on the table, and that's why we are here with another Addendum. But, the issue isn't Area 2. So, if something *must* be done to address the low abundance of lobster in the other inshore Areas, I think we could survive with Option B: 20% Increase in Egg Production only if our current trap reduction of 50% would be allowed to achieve this. This 50% reduction was implemented after the last stock assessment and should result in a *minimum* of 26.2% increase in egg production. That number is actually low due to the pretense of shorter trap hauls, and latent effort traps. Per McKeirnan/Estrella 1989, 4-5 day rehauls on average produce maximum catch yields. It is not economical to fish on shorter sets when fuel, bait, and labor remain the same but the catch is cut in half. That's not to mention wear and tear on the equipment and repairs and maintenance associated with it. The other pretense is of latent effort. The Area 2 fleet has been right-sized through a series of trap reductions dating back to 2005 where that reduction specifically targeted latent effort. There simply aren't any more unfished traps left. Trust me, I have been looking to buy some but there aren't any, especially the elusive MA and Federal combination license that I am stuck having to buy. Which, by the way, actually results in a 75% reduction in traps. 800 State combines with 800 Federal to equal one 800 trap combination license. Then, per our current trap reduction, reduce that down to 400 not to mention all the nickel and dime conservation taxes of 10% for every transfer. That's 1600 total traps that will be reduced down to below 400, or >75% reduction. That's something that never made it into the models.

Addendum XXV options...

Issue 1: Egg Production Target

Option A: Status Quo, we have done enough in Area 2.

We may survive with Option B: 20% if current trap reduction is accepted.

Issue 2: Management Tools

Option A: Independent Management Tools w/ Traps ONLY for Area 2

Issue 3: Recreational Fishery

Option A: Must abide by same measures as commercial

Issue 4: Season Closures

Absolutely NO season closures. Lobstering is the one last year-round fishery to earn a living.

However, Option B: Sub option B: may allow for a possible crab fishery offshore.

Issue 5: Uniform Regulations

Option A: Status Quo

Issue 6: Area 3 Management Measures

Option A: Status Quo

Issue 7: De Minimis States

No opinion on this issue. Up to the States requesting it.

Thank you for your time and consideration,

Jarrett Drake
Vice President Massachusetts Lobstermen's Association and LCMT2 member
Jarrett@DrakeLobster.com
(508) 789-9809

Megan Ware

From: Kathleen Ponze <kponze@ywln.org>
Sent: Thursday, April 06, 2017 9:01 AM
To: Megan Ware
Cc: John German
Subject: Addendum XXV

To: ASMFC Lobster Board, Megan Ware

From: John German, President, Long Island Lobstermen's Association

I would like to say that lobster landings for the Northeast are at the highest level in recorded history for the last ten years, although not spread out evenly. Lobsters are not going extinct.

Addendum XXV is the 25th addendum put in place since Amendment 3, each addendum with 1 to 3 lobster restrictions, probably adding up to 50 restrictions.
Does anyone on this board think 2 or 3 more restrictions on the fishermen will change the trend in lobster landings?

In Area 6 in New York our trap tag purchases have gone from 360,000 to less than 10,000, the largest reduction in the management area, a reduction by the fishermen themselves. While the fishermen are supposed to take the hit of Addendum XXV, the major causes of lobster decline In Area 6 New York seem to be predation, warmer water, pollution, and global warming making lobster recruitment and survival less likely and there is NO addendum which addresses these issues.

Therefore Area 6 New York fishermen feel status quo or less is what is warranted.

Thank you.

John F. German
President
Long Island Lobstermen's Association
lobsteratlocust@optonline.net


Right-click here to download pictures. To help protect your privacy, Outlook prevented automatic download of this picture from the Internet.

Megan Ware

From: James Violet <jvjv89@msn.com>
Sent: Thursday, April 06, 2017 8:41 AM
To: Megan Ware
Subject: Lobster Draft Addendum XXV

Follow Up Flag: Follow up
Flag Status: Completed

Issue 1. Target Increase in Egg Production. I am in favor of option A. There is a lack of data, particularly in Area 3. The benefits of our gauge increases and trap reductions are just bearing fruit in the last 3-4 years.
Issue 2. Management tools. I am in favor of option A.
Issue 3. Recreation fishery. I am in favor of option A.
Issue 4. Closed seasons. Not in favor of this. Not practical for Area 3. Negative impact on the crab fishery.
Issue 5. Uniform Regulations. Not in favor. Each area has unique problems and means to address these problems.
Issue 6. Implementation of Management Measures in LCMA 3. Option A. Potential for major displacement of vessels, gear conflicts and effort shifts. This would also cause a major problem for the crab fishery as crab vessels fish significant distances on both
sides of the suggested line, even including the buffer option.

I feel if the 2020 stock assessment does not show significant improvement, we should continue with our trap reductions as needed. This is essentially a industry funded buyout.

I do not support accelerated trap cuts.

I support a trap cap of 1800 traps. I support a INCREASE in the transfer TAX to 25% after current reductions take place.

Thank you,
Sincerely,

James Violet
F/V Excalibur
LCMA Area 3

Megan Ware

From: Fishthewizard <fishthewizard@aol.com>
Sent: Thursday, April 06, 2017 8:40 AM
To: Megan Ware
Subject: Lobster Addendum XXV

Follow Up Flag: Follow up
Flag Status: Completed

To Whom It May Concern:

We are against any trap reductions and closed seasons. When the LMA's were created, a line was drawn through the middle of our gear. Every new regulation has a double impact on us because we fish in two areas simultaneously. When trap allocations were made, the number of traps we could fish was cut in half. With the closed seasons, we have two of them. This is because of the "most restrictive rule". Nothing was ever attempted to remedy this situation even though I discussed it with FMP coordinators years ago. And we cannot fish under the Area 5 trap waiver while sea bass potting because we fish in Area 4, too.

Joan Berko
Michael Scott

Megan Ware

From: Jeff <wjbsr@comcast.net>
Sent: Wednesday, April 05, 2017 8:39 AM
To: Megan Ware
Subject: Regulation

My family is in support of the Mid-Atlantic lobster men. Please protect their livelihood. Jeff Bounds

Sent from my iPhone

Megan Ware

From: Susan/George <degroft42@comcast.net>
Sent: Wednesday, April 05, 2017 8:13 AM
To: Megan Ware
Subject: Lobster fishery

I support my local lobster fishermen. I believe they will fish responsibly and help their industry survive and thrive. I also believe that first hand knowledge is far better and more accurate than any other sources.

Sent from my iPad

Megan Ware

From: northatlanticseafood1@gmail.com
Sent: Wednesday, April 05, 2017 6:36 AM
To: Megan Ware
Subject: Lobster Draft addendum XXV

Sent from my iPhone

Begin forwarded message:

From: Matteo DiMeglio <mdimeglio51215@gmail.com>
Date: April 4, 2017 at 11:52:58 PM EDT
To: northatlanticseafood1@gmail.com
Subject: Draft addendum XXV

Frank Di Meglio
1767 Central Park Ave.
Suite 14
Yonkers, NY 10710
(646)996-3059
April 4, 2017

North Atlantic Seafood #3949
F/V Lady Barbara # 251676 area 4
F/V Atlantic Warrior # 151750 area 4 & 6
F/V Atlantic Queen # 240192 area 3 & 5

All lobster areas should be kept separate and not be considered "SNE"
Area 6 can have no effect on area 4. One is a closed body of water and the other is the Atlantic Ocean.

Increase egg production by opening the 7 year moratorium on ocean pout. It has been about 14 years since it closed. They are vacuums eating lobsters whole.
Increase quota on black sea bass which are also a lobster predator.

Seasonal closure

In regards to removing lobster pots for a month is pointless.
The risk we take by over loading the boat to have the gear in can result in a tragic loss of life.
Bad weather along with the excess weight and tall center of gravity is a recipe for capsizing.

Lobster pots provide a habitat and protection for lobsters as well as a food source.

If pots are removed mobile gear boats " scallopers and draggers " will destroy the bottom completely.

Fishing out of NYC, there is no place to store the traps at. There is no vacant land available nor will any local marina's allow commercial fisherman.

Gear in the water allows us to fish for Jonah crabs during the closure to keep everyone working and employed.

In regards to the area 3 split. It should be left alone.

Current data for area 4 does not exist. Presentation had water temperature from Long Island Sound from years ago. According to NY and NJ DEC, their is no funding for it.

As of today no LCMT meetings have taken place.

Thank you,
Frank Di Meglio

"Make America Great Again"

Megan Ware

From: kjhbraunseafood@netscape.net
Sent: Tuesday, April 04, 2017 4:39 PM
To: Megan Ware
Subject: addendum xxv

Megan Ware,
I just recently became aware of addendum xxv,in reference to a possible change of 1/4 inch carapace measurement proposed in New York State.This would be devastating to businesses supplying lobsters to restaurants and fish markets in New York.Most Lobster dealers have devoted tremendous money in building and maintaining lobster systems to distribute lobsters.The extra 1/4 inch would make a legal lobster over a 1.65 pounds.This would put a demand on 1.65 pound lobsters and larger that would surely become very expensive commodity to consumers.We are in a very seasonal area on the North Fork of Long Island,and the 1.25 to 1.5 pound lobster is very popular size particularly in the Summer because it is affordable.We almost completely buy lobsters from Canada and Maine to handle the volume of lobsters we need in the Summer because of the lack of supply on Long Island.The suppliers in Canada and Maine tell me their supplies have been sustainable.
I am not a scientist to comment on your methods of deciding what is to be done on declining stocks in New York harvesting areas.I have seen many species decline over the years due to brown tide,predators,pollution,or just plain Mother Nature.I know we have to keep diversifying to stay alive in the seafood business.I support any measure that will help a specie rebound from stresses caused by man or nature.But I can't conceive any government helping to destroy business and jobs by not letting them handle seafood products that come from sustainable areas of the world,There has to be a way to allow seafood businesses to bring lobsters in from sustainable areas to New York without changing the lobster size so we can save jobs and maintain facilities built to handle the commodity.

Regards,Kenneth Homan,President

Braun Seafood co.
30840 Main Road
Cutchogue.New York

Megan Ware

From: Eddie Emery <ea_emery@yahoo.com>
Sent: Tuesday, April 04, 2017 2:53 PM
To: Megan Ware
Subject: Draf Addendum XXV

April4, 2017
Re: Addendum XXV Proposed for LMA 6, 6A

To Whom It May Concern;

My name is Edwin Emery. I am a third generation Commercial Lobsterman here in Connecticut. I am writing in response to the new regulations proposed in Addendum XXV.

First, I'd like to express my concern over what seems to be a complete lack of knowledge, answers, and effects of the Shell disease that has been infecting and devastating Lobster population and recruitment in Southern New England for twenty years. First discovered in October 1997, we've watched this disease devastate mainly females, especially those bearing eggs. Egg bearing females often Molt on a slower schedule than males and other females leaving them susceptible to this disease. I believe this alone has crippled lobster recruitment and possibly this fishery. I see no proposal set forth from the commission that answers any question regarding shell disease, its causes, and effects it has on the fishery. Without first identifying this problem and its effects on females and the mortality of each years egg production any regulation or restriction on the fishery will do nothing to strengthen the species or the fishery.

Second, the proposed restrictions in Addendum XXV, trap limits, closed seasons and gauge increases have already been implemented and also have failed to reverse the cause of the decline in the Lobster population here in Connecticut. Trap Limits were enforced in 2000 lead to fishermen in Long Island Sound being limited according to their past participation. While northern states such as Maine and New Hampshire and Federal area 2 capped traps at 800, Connecticut currently has fishermen allocated to 3000 and some even 4000 traps. Keep in mind a fisherman in Long Island Sound would have to haul 400 traps everyday for 10 days to haul all those traps. In the summer for instance the bait lasts 5 nights maximum, so 2000 of those traps are sitting un baited for a majority of the time its in service. Also, the Long Island Sound Lobster fishery consists of mostly 35- 42 foot vessels working an area 1300 square miles, how can trap allocations over 800 traps in this fishery seem reasonable reduction when an area such as Georges Bank, with 8,050 square miles and vessels between 65-90 feet in length are capped at 1600 traps?
I believe all fishermen allocated over 800 traps should be cut back to 800 while capping those currently under 800 to their current allocation.

Next is closed seasons. We've been working under a closed season now for three years. Not only are they a dangerous and irresponsible form of conservation, they always put fishermen at risk with weather. I think its track record so far has proved it to be ineffective. Also it might be important to know Lobsters historically migrate offshore when the water temperature reaches its warmest in the Sound, generally September and October. Regulating a migratory species with closed seasons will always fail.

Last is another gauge increase. Increasing the legal size will also be ineffective when most of Connecticut's mature lobsters are suffering from shell disease. This will in no way encourage recruitment.

In closing I truly feel the answer to a recovery in our lobster fishery is the health of our females. Without healthy females and healthy egg production in any population, human, lions, tigers, plants, or lobsters a population will suffer. For 20 years are female lobsters have been under attack by shell disease. Any regulation or restriction will fail without an answer to this devastating disease. I suggest a closed season on females August 1 to November 1. Females are pregnant in August yet their eggs are not exposed. Fishermen harvest these lobsters and in effect keep them from producing juveniles. Closing these females will give them time to properly produce and expose their eggs and hopefully add to the population. Also consider capping these large allocations, if we have a recovery in the fishery I am afraid we will see it quickly overfished.
Thank you for your time;
Ed Emery

Megan Ware

From: Chuck Anderson <c.anderson@sustainablespi.com>
Sent: Tuesday, April 04, 2017 12:14 PM
To: Megan Ware
Subject: Please do not Advance Draft Addendum XXV to Amendment 3 of the American Lobster Fishery Plan

Dear Ms. Ware,

I disagree with the solutions provided by the draft addendum XXV to amendment 3 of the American lobster fishery plan. Please look at lobster regulations in Maine as a guide for better management. Increasing the minimum size of lobsters in southern Rhode Island, Connecticut, NY, and NJ will not help lobster populations, and will hurt commercial fishermen all over the Northeast. Instead, please look at keeping the smaller size catches, eliminating catches of large lobsters over 4 1/2lbs and notching egg bearing females. These practices work well in Maine, where record harvests have been commonplace over the last decade.

Respectfully,

Chuck Anderson
Sustainable Sea Products International
617-429-5157 Mobile
www.sustainablespi.com

Megan Ware

From: Carl Salamone <carl.salamone@wegmans.com>
Sent: Tuesday, April 04, 2017 7:30 AM
To: Megan Ware
Subject: New England Live Lobster

Ms. Ware,

I strenuously object to the solutions provided by the recently released DRAFT ADDENDUM XXV TO AMENDMENT 3 to the to the American Lobster Fishery Management Plan in response to the apparent stock decline of lobsters in Southern New England and ask that, 1st , you extend the comment period by another month, and 2nd , that you adopt the state of Maine's regulations on lobsters to make this sustainable fishery for New York, Connecticut, Rhode Island and New Jersey. Maine's minimum size is below that of Southern New England's states, but ceiling sizing and the notching fecund females has made their management of the resource legendary. Maine's plan works and the size increases don't. Comparing the health and sustainability of the two resources makes an airtight case.

Respectfully,
Carl Salamone

Carl P. Salamone
V.P. Seafood Sustainability
"To protect our label and advance the industry"
Wegmans Food Markets, Inc.
Direct Phone-585-464-4676
Cell—585-314-0509
E-Mail-carl.salamone@wegmans.com
"Always go with your passions, never second guess them and resist conventional wisdom?"

Megan Ware

From: Alex D <alexdel888@gmail.com>
Sent: Tuesday, April 04, 2017 3:33 AM
To: Megan Ware
Subject: Lobster

Ms. Ware,
I strenuously object to the solutions provided by the recently released *DRAFT ADDENDUM XXV TO AMENDMENT 3* to the to the American Lobster Fishery Management Plan in response to the apparent stock decline of lobsters in Southern New England and ask that, 1st, you extend the comment period by another month, and 2nd, that you adopt the state of Maine's regulations on lobsters to make this sustainable fishery for New York, Connecticut, Rhode Island and New Jersey. Maine's minimum size is *below* that of Southern New England's states, but ceiling sizing and the notching fecund females has made their management of the resource legendary. Maine's plan works and the size increases don't. Comparing the health and sustainability of the two resources makes an airtight case. Thank you for your consideration and time.

Respectfully,
Alex Delamater
Graduate student- Marine Ecosystems and Society

Megan Ware

From: Eduardo Tamborrel <editamborrel@gmail.com>
Sent: Monday, April 03, 2017 9:41 PM
To: Megan Ware
Subject: Lobster addendum xxv

Ms. Ware,
I strenuously object to the solutions provided by the recently released *DRAFT ADDENDUM XXV TO AMENDMENT 3* to the to the American Lobster Fishery Management Plan in response to the apparent stock decline of lobsters in Southern New England and ask that, 1st, you extend the comment period by another month, and 2nd, that you adopt the state of Maine's regulations on lobsters to make this sustainable fishery for New York, Connecticut, Rhode Island and New Jersey. Maine's minimum size is *below* that of Southern New England's states, but ceiling sizing and the notching fecund females has made their management of the resource legendary. Maine's plan works and the size increases don't. Comparing the health and sustainability of the two resources makes an airtight case.

Respectfully,
Mr. Eduardo Tamborrel

Megan Ware

From: Benetti, Daniel Domingues <dbenetti@rsmas.miami.edu>
Sent: Monday, April 03, 2017 8:48 PM
To: Megan Ware
Subject: Regarding the Lobster Draft Addendum XXV

Dear Ms. Ware,

This note is to reiterate my objection to the solutions provided by the recently released DRAFT ADDENDUM XXV TO AMENDMENT 3 to the to the American Lobster Fishery Management Plan in response to the perceived stock decline of lobsters in Southern New England.

I kindly request that you extend the comment period by another month, and that you adopt the state of Maine's regulations on lobsters to make this sustainable fishery for New York, Connecticut, Rhode Island and New Jersey.

Maine's minimum size is below that of Southern New England's states, but ceiling sizing and the not catching gravid females made their management of the resource sustainable both economically and ecologically. Maine's plan works and the size increases don't. Comparing the health and sustainability of the two resources makes an airtight case.

Thanks for considering this request.

Kindest regards.

Dan

Daniel D. Benetti, Ph.D.
Professor & Director of Aquaculture
Department of Ecosystems & Society
RSMAS - University of Miami
4600 Rickenbacker Causeway
Hatchery/Lab address:
65 Virginia Beach Dr.
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Cell +1 (786) 553-5557
Email: dbenetti@rsmas.miami.edu
Facebook:https://www.facebook.com/umaquaculture/
http://www.rsmas.miami.edu/people/faculty-index/?p=daniel-benetti
http://www.rsmas.miami.edu/groups/aquaculture
http://UMaquaculture.com

Megan Ware

From: howardr35@aol.com
Sent: Sunday, April 02, 2017 10:54 AM
To: Megan Ware

Megan,

In reference to the lobster regs:

sport divers support
Issue 1- Option B,
Issue 2- Option B,
Issue 3- Option C,
and Issue 5, Option B.
NO 3 MONTH SUMMER CLOSURE!

I think its time for the recreational lobster fishery to be seperated from the commercial catch. I don't know how many rec pots are being fished but I suspect very few. This would mean most of the rec catch is from sport divers who catch lobster by hand. We may be out on the boat all day but typically only have about 1 hour a day actually in the water. Out of that hour about 1/2 the time may be spent ascending and decending , navigating the site, etc and the other 1/2 hour is spend hunting. Many of the recreational divers don't target lobster on every dive and some not at all. Many dives try but are not proficient at catching lobster but like to try. Most of our non legal lobster are released on the bottom so the mortality rated of released lobster is very low. Not all dive sites have lobster and most divers only dive in the warmer weather(about 5 to 6 months of the year). Another issue we have is that there are many days we can not dive due to poor visibility and water too rough to enter and exit the water. When you take into account that the recreational catch is less than 1% of the commercial catch it

makes sense to impose more restrictions on the recreational sector. Not only do we nee less restrictions in the future but we also need a reduction in the regulations. For instance we are only allowed 6 lobster a day and we can not take the larger lobster. like most rec fishing we would like to be able to catch the occasional large lobster (trophy) that we occasionally see.

Thanks for the opportunity to express my views

Sincerely,

Howard Rothweiler
99 15th St
Toms River , Nj 08753
732 255-2865

Megan Ware

From: Chris Stien <chris.stien1@gmail.com>
Sent: Saturday, April 01, 2017 4:30 PM
To: Megan Ware
Subject: Lobster draft addendum

To ASMFC; I recently attended the meeting in Bourne ,
Ma.. I was one of the lobstermen from the Vineyard group. We all came away from the meeting feeling unheard by the attending council members. There was a level of arrogance towards us that was unsettling. We as a group have felt strongly that your data and data formulas are not accurectly measuring the state of our lobster fishery. When questioned about this at the meeting you position seemed to be that there was no possible way the council had erred in its representation of the lobster fishery.

As a group we be to differ. Collectivly, the group of nine lobstermen from Menemsha has a total of over 350 years in the lobster fishery. we have seen much over the years and have also seen a number of different managment styles. Never have we seen a group so quick ti dismiss open and active discussion of the issues. Phil Coates always understood the importance of input from the fisherman and also understood that our survival was equally as important as fishery itself. He also was always willing to talk with the industry as equals not as subordinates. Hopefully in the future you folks will improve your communication skills with the fisherman.

The group of fisherman from the island has always fished conservativly. Most all of us fish 450 or less pots yet we have been penalized for this in our pot allocations . We find ourselves surrounded by boats from far away and out of state fishing the maximum number of pots. You folks have always failed to support us from this disparity. As a group we feel strongly about what we would like the council do.

1. Allow the current managment plan in place to run its course before any additional measures are considered.

2. Include the current managment reductions in your stock projections and egg production projections.

3 A winter closure Jan., Feb.,Mar, would be acceptable. It would allow the fishery a rest and force the New Bedford boats to leave the fishery alone for three months.

4 Larger boats Fishing 880 pots must be pushed further offshore to give the local fishery a chance. A 450 pot limit is suggested from a point extending west of gayhead for 8 miles and extending southwest past nomans island for 4 miles. Boats could choose to fish in one area or the other, not both.

Thank you for your consideration and we look forward to working with you folks as we move forward.

Respectfully Chris Stien, Menemsha Ma.

Megan Ware

From: nat miller <miller_nat@yahoo.com>
Sent: Friday, March 31, 2017 11:16 AM
To: Megan Ware
Subject: O

Any thing 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

Megan Ware

From: Ian MacGregor <ianm@lobsterplace.com>
Sent: Tuesday, March 28, 2017 8:02 AM
To: Megan Ware
Cc: Inside Sales; Purchasing; Outside; Brendan Hayes; Davis Herron; Jessica Burkins
Subject: Lobster Draft Addendum XXV

Follow Up Flag: Follow up
Flag Status: Completed

Ms Ware,
I'm writing in response to the request for comment in the subject document. There is some discussion in the industry that the NYSDEC is contemplating an increase in minimum carapace size to 3 5/8" concurrently with ASMFC's changes to the SNE Lobster Fisheries Management Plan. I am not in a position to comment on the various proposals for preserving the SNE lobster stock other than to offer that any steps taken to responsibly manage the resource while balancing real economic imperatives are the most prudent way forward. However, to the extent that you are aware of any such proposal by NYSDEC and that you have influence over the decision, I offer the following critique.

The NYSDEC has misappropriated the regulations intended to preserve NYS lobster fisheries and utilized them as a mechanism for generating revenue for the State. Case in point, the agency has made a practice of surprise inspections of both vehicles transporting lobsters harvested in other states and of local seafood dealers who possess such lobsters. When lobsters below NYS carapace limits are found, stiff penalties are imposed on dealers at every level of the supply chain – regardless of where the lobsters were HARVESTED and whether the product meets the requirements of the harvest area. While an increase to minimum carapace lengths for lobster HARVESTED in the waters of SNE may be advisable, imposing penalties on dealers in possession of smaller lobsters harvested in other areas surely does nothing to protect the resource in SNE. In the interest of maintaining an environment where industry and regulators work COOPERATIVELY to sustain our resources, extraordinary steps should be taken to end the practice of exploiting industry under the banner sustainability.

Thank you for this opportunity to comment.

Sincerely,

Ian MacGregor
CEO
The Lobster Place, Inc.
Direct: 646 398 5041
Mobile: 917 855 0935
E: ianm@lobsterplace.com
www.lobsterplace.com

Megan Ware

From: Barbara Krooss <BarbaraKrooss@aol.com>
Sent: Monday, March 27, 2017 7:28 PM
To: Megan Ware
Subject: Please don't restrict lobster diving

Dear Ms. Ware,
Bob and I have been scuba diving from the beach for lobsters together for almost 30 years, and always bring back more beach cleanup stuff than lobsters in our bags.
We get permits, pay beach access fees, notch females with eggs, and do not take undersized "bugs"...just enough for our dinner (if we're lucky).
We educate our friends about the importance of keeping Long Island Sound free of harmful chemicals.
(We're also beekeepers, and those "bugs" are also hurt by the same pesticides!)
Since we are intelligent predators, we want to do all we can to protect our prey population.
That means we care about global warming and water temperature, and nitrogen and O2 levels.
Scuba divers do not have a significant negative impact on lobster numbers.

In fact, our lobster diving has a positive effect on the littoral / marine environment.

Please use your influence to let us continue doing this.

Thank you so much.

Barbara Krooss & Bob Sterner

TO: MEGAN WARE
Atlantic States Marine Fisheries Commission
mware@asmfc.org

RE: Lobster Draft Addendum XXV Management Alternatives

Dear Ms. Ware:

I am familiar with the Atlantic States Marine Fisheries Commission proposal known as "Lobster Draft Addendum XXV Management Alternatives". There is no doubt that this ill-conceived Regulation, if adopted in any form, would serve to devastate recreational lobstering practices with no appreciable benefit to the waters or the lobster population. The adoption of the Regulation would, however, serve to further unduly restrict the recreational use of our waters by the public.

The adoption of any of the proposed "options" (Option A, Option B, or Option C) would have the same net effect. Recreational lobstering will be restricted to the point of extinction with no concomitant ecological or practical benefit. The proposed significant increase in gauge size, the creation of "closed" seasons, and trap reduction proposals, whether viewed individually or collectively, will destroy recreational lobstering. In addition to the loss of a time-honored

recreational activity, the economic impact on such businesses such as scuba dive shops and dive boats will be immeasurable. Hundreds, if not thousands, of families and individuals will suffer enormous economic impact. The damage is incalculable.

Studies have demonstrated that after Superstorm Sandy, lobster populations have been increasing. Recreational lobstering has never been shown to have any appreciable effect whatsoever on juvenile lobster populations, egg production, or other matters which could adversely affect the population. Lobstering is one of the prime attractions to recreational scuba diving in our waters. Removing or further restricting that time-honored and ecologically sound use of our resources is unquestionably contrary to sound fishery management.

I urge you to reject this ill-conceived and inappropriate Regulation.

Thank you for your time and your consideration.

Respectfully,

Barbara Krooss & Bob Sterner

Name: _____

Megan Ware

From: Thomas Biesiadecki <tomymarlin@gmail.com>
Sent: Sunday, March 26, 2017 11:34 AM
To: Megan Ware
Subject: Lobster Draft Addendum XXV

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To Atlantic States Marine Fisheries Commission,

My name is Thomas Biesiadecki and I am the owner and operator of the F/V Marielle Renee (Federal Permit #241238). I am Federally permitted to fish in LMCA's 4&5. I am writing to express my concerns over the newest addendum(XXV) to Amendment 3. My concerns are primarily with data collection in a small portion of LMCA 2 and how it is used to determine policy for thousands of square miles of ocean encompassing LMCA 4&5 for which there is little or no data. My concerns are with the proposed attempt to increase egg production and the process with which data is going to be collected and analyzed in a timely manner. I fear that this is just another futile effort to correct a situation that is driven by climate change and its advocates. There is currently not enough effort in LMCA's 4&5 to constitute any further action as compared to the effort that is being put forth in LMCA's 1&3. I also have a few questions concerning the data on egg production and the collection of it. First I would like to know, How many eggs are currently in LMCA 4&5 and how do you arrive at that statistic. There certainly has to be a base line from which a proposed regulation and it's anticipated outcome has to start from. I would also like to know the method for which data will be collected on the production of eggs going forward and how often that will be monitored.

In response to the proposed addendum (XXV) and the seven(7) issues that are expressed in the addendum, I feel that the economic impact that this addendum will impose on myself and my fellow fisherman here in New Jersey is reason enough to proceed with caution and take this idea of increasing egg production slowly. If not for the simple reason that the data is incomplete and no scientist in their right mind would jump to a conclusion with out sufficient data. Going forward I would like to see the ASMFC make an informed decision through collective efforts(i.e. sufficient data from LMCA's 4&5 in regards to egg production) with all states associated with this addendum. Not just push another fruitless addendum through because of a deadline that a few years down the line yield similar results as the last twenty four(24) addendums have done.

The only true facts come from us the fisherman who have been immersed in the lobster fishery in New Jersey. The current regulations for areas 4&5 require us to remove traps from the water for the closed seasons, which can take over a month to remove and a month to reset in essence removing us from the fishery for up to three(3) months. Which in turn eliminates are ability to take part in the Jonah Crab fishery further imposing economic hardship on our industry. I feel that this stipulation in the current regulations be removed so that we can participate in the Jonah Crab fishery and when the lobster season opens we are able to return to work in a timely matter so our families don't have to suffer. It is without hesitation that I again point out the lack of sufficient data that comes from the areas of LMCA 4&5, and for us to allow this addendum to proceed without significant changes in the way data is collected for our area is ludicrous. It is in my opinion that the addendum should remain status quo until there is steps put in place to insure proper and sufficient data collection can be made part of any change to regulations going forward.

Concerned

Thomas Biesiadecki

F/V Marielle Renee LLC

Megan Ware

From: Bonetti, Andrew J <abone0005@mail.ct.edu>
Sent: Saturday, March 25, 2017 1:26 PM
To: Megan Ware
Subject: Lobster Addendum Response

Good day,

I am writing this today in response to the Lobster XXV Addendum that I recently heard that was passed down by the ASMFC in regards to next steps that are on the table for managing the lobster stocks we have here in Southern New England.

After reading the case study, I understand that the main situation that you say we are seeing now is the decrease in baby lobster recruitment, which is at dangerously low levels. In essence, your findings are saying that "if fishermen don't put in proper management tools, then the lobster population will eventually collapse." This is a serious and bold claim to make, and I would say that most fishermen and conservationists are on the same side, because we both want to see the lobster population do well for us and future generations alike.

Although there are many disagreements to be had between the commercial fishing and scientific community, the main issue in all fisheries conversation seems to be the lack of hands on knowledge that the scientific community expresses, and the commercial fishing community not having the degree of scientific knowledge that policymakers present data with. Because of this, it creates a gap in the conversation, where both sides remain divided because it's a "Doer's vs Thinkers" argument.

Being that the Long Island Sound is 1,300 square miles, with an average depth of 63ft, while holding 18 trillion gallons of water, I believe it would be silly to say that someone could know EVERYTHING about what goes on in it simply because they hold the proper credentials. The sound is a constantly changing environment that both reacts to and impacts us based on what we do on and off the water as a collective majority.

With that being said, one of the biggest subjects you mentioned in the beginning of the addendum was the issue of global warming and how it's changing our seas. I couldn't agree more with this, as there are many examples that prove this to be an environmental reality. One of the most common I've personally seen is the influx of Black Sea Bass and Scup populations in the sound, who share rocky bottom structure with lobsters and other native crustacean species. I notice that most of the traps we set and pull come back with more sea bass & scup than they do lobsters…Seeing as Black Sea Bass & Scup are predators, I wonder if the disappearance of baby lobsters has something to do with the increasing population of these predatory species into our waters?

And this might be a stretch, but since these fish are coming here because of forces we cannot directly control (global warming), I wonder how much longer the lobster fishery can realistically survive into the future here, based on the assumption that someday it will just be too warm for lobsters to be a possibility.

One concern that I have with your assessment is that there is no mention of how you completed these studies to solidify your claims. Since there's no parameters explained on how you conducted your research, it makes me wonder if you ever ventured onto a down east lobster boat during the study to see what comes up in the traps us fishermen pull on a daily basis. To hear the statement that the lobster population is "about to collapse", to me is surprising and makes no sense, because the amount of lobster we throw back from our

traps that are either… eggers, or undersized totals to about throwing ½ of what we catch back into the sound. From personal experience, I'd argue that we are seeing the OPPOSITE in what you are saying, in that the stock of small growing lobsters in the sound is huge, while the availability of legal sized lobsters seems to be small and getting smaller as more regulation is added to this industry.

The last few things I want to comment on pertain to the political environment of the situation we see here expressed today, and possible solutions I see to solve those problems…. I know I'm not alone in saying this, but the governance of the commercial fishing industry in America needs a drastic overhaul. As I look around the corporate structure of government agencies, I see nothing but suits who have no real personal experience in what they are regulating, but are trusted in making the decisions for the hardworking American families scrambling to make an honest day's pay. I believe that a different process for validating regulations needs to be established with both the fishermen and policymakers sitting at the same table to negotiate terms to find reasonable compromises for everyone.

I think what I'm trying to say is that we need options. I'd love nothing more than to vote and have discussions about the things that we all want to see done, but if the management structure in this sector remains in this top-bottom fashion, we won't ever get anything truly accomplished, and what will suffer is the health of our fisheries. Now more than ever, we all need to pull together for the most important objective which is the development and continuation of the resource for us and the many generations after us to pursue like we have the option to do so now. Anything accomplished less than that, is a waste of our time, but the only way we can do this, is through fair & equal representation & discussion.

Regards,

Andrew Bonetti

Red Gill Fisheries SP

Megan Ware

From: Danial Emery <lobsterdan@yahoo.com>
Sent: Thursday, March 23, 2017 7:12 PM
To: Megan Ware
Subject: Fw: Draft Addendum XXV

On Wednesday, March 22, 2017 7:39 PM, Danial Emery <lobsterdan@yahoo.com> wrote:

To: ASMFC,

My name is Danial Emery, a multi generation commercial fisherman actively fishing in CT area 6 for lobsters, conch and various fish. I was in attendance at the meeting in Old Lyme Ct (DEEP HQ) Tuesday March 21. As always the meetings become somewhat hostile and rarely on topic. I do feel like the purpose of the meeting wasn't met due to the fears of most lobster-men losing tradition and livelihood. So, I'd like to offer some alternative egg production ideas/regulations for the council to consider to help everyone continue to reach their goals. I would also like to share generations of information on why some of the councils ideas may or may not work.

My first thought on the trap reduction is that it was effective in other states that implemented an across the board approach in which fishermen were allotted equal amounts of traps. Unfortunately Ct didn't take that approach and we are now left with some fishermen having thousands and some with hundreds of trap allocation. Therefore, a trap reduction would devastate a person with under 600 trap allocation and have little impact on those with thousands. With that being said, I am in favor of trap limits however they must start over and give everyone an equal amount to start. Please use other states as an example.

Secondly, I've pondered the idea of a gauge increase and or V-Notch. As we know the V-Notch program was ended when the funds to the fishermen ran out. There is no hard proof that many fishermen were continuing it willingly. As much as I liked the thought of all fishermen V-Notching lobster on their boats, I understand that it may not always happen. So it brings me to the gauge increase. A CT legal lobster is now 1 1/4 to 1 3/4 lbs. Any gauge increase will push that number to the 2lb range and make it a difficult sell for buyers marketing "chic" lobsters. I personally feel the effort should be used to research and fix a shell disease issue that has been killing males and females by making them susceptible to an over abundance of predators etc. The shell diseased females seem very weak while carrying their eggs and most times are found dead before they drop their eggs. There also is no solid evidence that the eggs hatch due to the disease.

Now on to closed seasons. There is a risk factor in closed seasons statistically. A closed season has all the fishermen lined up at a gate to run out in ANY weather and set gear. Risking the lives of captains and crews. I feel the closed season in place from Sept 8 - Nov 28 was most effective. During those dates the females are well into the process of revealing their eggs and for lack of better words fragile. I think a most effective and safe way to boost egg production and not force anyone out of business would be as follows; keep the closed season, changing it slightly from Sept 8-Nov 1. However, adding a closed season on females from Aug 1- Sept 8 or essentially Aug 1- Nov 1. The reason for the date changes is that the females are beginning to develop eggs as early as August and any female taken at that time is sacrificing one more hatch.The reason for the change to Nov 1 is because the "run" hasn't yet started and it gives the fishermen a more relaxed and therefore safer opportunity to re-launch their gear without disturbing egg bearing lobsters.

I was informed at the meeting that the data used is from 2014. After seeing an abundance of lobsters of all sizes this season, I wish the council would consider using data from 2016.

Thank you for considering these suggestions and working with the fishermen to better our fishery. Please contact me with any questions before a final decision is made. I would be more than happy to clear up any confusion.

Sincerely, Danial Emery

Megan Ware

From: Curt Brown <cbrown@readyseafood.com>
Sent: Thursday, March 23, 2017 4:18 PM
To: Ray Miclette
Cc: Megan Ware; Brendan Ready
Subject: Re: Lobster Carapace Requirements

Hi Megan,

Thank you very much for your response and insight. Like Ray said, we completely understand the need to restore spawning stock biomass and egg production in southern New England. I work closely with our lobster scientists here in Maine, both at DMR and at UMaine on a number of projects and am fairly familiar with the stock assessment process. Our concern as a lobster wholesaler based in Maine is that any further increases in the minimum size will have a severe negative impact on our business and many other wholesale lobster businesses throughout the region. The difficulty of selling different sized lobsters into the New York market can not be overstated.

We would much rather see decreases in the maximum size or more stringent v-notching rules put in place to increase egg production. A 5" maximum size would bring southern New England in line with Maine regulations and would conserve large males and females who have been shown to produce high quality eggs. V-notching non-compliance and incorrect marking in southern New England seems like a silly reason not to go forward with a proven effective conservation method. If there is any way to replace an increase in the minimum size with a combination reduction in maximum size/v-notch requirement and zero tolerance it would go a long ways towards streamlining lobster sales across state borders.

If you could include our concerns in the comments for this addendum we would really appreciate it. If you would like, we could put together a formal letter if you think that would carry more weight.

Thank you very much for taking the time to listen to our concerns, we really appreciate it.

Hope all is well,

Curt Brown
Marine Scientist
Ready Seafood
www.readyseafood.com

On Thu, Mar 23, 2017 at 10:47 AM, Ray Miclette <rmiclette@readyseafood.com> wrote:

> Thanks Megan!
>
> I appreciate the quick response! We are 100% on board with anything to do with increasing egg production in lobster and it seems that current restrictions are not working by the data provided. We are positive that there are other methods to increase egg production in your lobster stock that probably have not been discussed in your meetings.

Maine has a proven regulation to create a sustainable and healthy lobster population. Our methods are a true story of sustainability and landing in our state continue to increase year after year. Curt Brown who is a Marine Biologist and a Maine lobster fisherman, is cc'd on this email can illustrate this further but we currently use the following methods:

V Notch System- This assures that proven egg bearing females can not be harvested
Maximum Sizing- Studies have shown that lobsters with a 5 inch or larger carapace are responsible for most of the egg production.
Minimum Sizing- 3 1/4 inch
Licensing- Maine limits the amount of licenses issued

NY's current regulation seems to not be working and is gaining a lot of resentment from fisherman, NY Business's that sell lobster, consumers who want a fair priced product, and lobster companies out of state that ship to NY just like ourselves. The task of using a carapace to grade is very difficult and confusing for most to do in volume. The current method seems to have failed and we are confident that a higher carapace limit will also fail.

Is there anyone if your office that we can speak to about with this? We know that there are better ways to fix your lobster stocks and are 100% available/willing to help.

On Thu, Mar 23, 2017 at 9:59 AM, Megan Ware <mware@asmfc.org> wrote:

Hi Ray

Thanks for reaching out about Lobster Addendum XXV. The Addendum seeks to increase egg production in the SNE lobster stock and the Board is considering a variety of management tools, including gauge size changes, season closures, and trap reductions. The Addendum is designed so that LMCAs can choose what management tools they would like to use to achieve the target increase in egg production chosen by the Board.

I am happy to talk and answer questions about the addendum; however, if you are interested in providing comments the best way is through a letter or email. I am currently on the road conducting public hearings on the addendum but I will be in the office next week.

Sincerely,

Megan

From: Ray Miclette [mailto:rmiclette@readyseafood.com]
Sent: Thursday, March 23, 2017 8:35 AM

To: Megan Ware <mware@asmfc.org>; Brendan Ready <brendan@readyseafood.com>; Curt Brown <cbrown@readyseafood.com>
Subject: Lobster Carapace Requirements

Good Morning Megan!

I just received your contact information from a few of my concerned clients in NY and have cc'd Brendan Ready to this email. Brendan is the owner of Ready Seafood. I have also cc'd Curt Brown, Curt is our onsite Marine Biologist.

I was told by several of our concerned customers this morning that there was a meeting on Monday to increase the carapace requirements on all lobster entering NY State. We pray that this isn't true.

Raising the minimum carapace length of lobster will destroy the live lobster market in NY and send shock waves throughout the entire industry. The added carapace length will raise the pricing of lobster, limit the amount of lobster that can be sent into NY, and likely force many companies that rely on this precious resource out of business.

Would it be possible to speak at some point this week? I would love to be able to discuss this matter with you.

--

Best Regards!

Raymond Miclette

Ready Seafood/Maine Seafood Ventures

401-256-9693

www.readyseafood.com

www.maineseafoodventures.com

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Best Regards!

Raymond Miclette
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Megan Ware

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Follow Up Flag: Follow up
Flag Status: Completed

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Sent: Thursday, March 23, 2017 8:35 AM
To: Megan Ware <mware@asmfc.org>; Brendan Ready <brendan@readyseafood.com>; Curt Brown <cbrown@readyseafood.com>
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Would it be possible to speak at some point this week? I would love to be able to discuss this matter with you.

--

Best Regards!

Raymond Miclette

Ready Seafood/Maine Seafood Ventures

401-256-9693

www.readyseafood.com

www.maineseafoodventures.com

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Best Regards!

Raymond Miclette
Ready Seafood/Maine Seafood Ventures
401-256-9693
www.readyseafood.com
www.maineseafoodventures.com

Megan Ware

From: Richard Gam arsenal <lobsterman0476@gmail.com>
Sent: Wednesday, March 22, 2017 5:20 PM
To: Megan Ware
Subject: Lobster regulations

Any further regulations you implement on us would be disastrous. We have followed every regulation that everyone said would bring them back. Sorry nothing has worked yet and is not going to. Time to address what's keeping them from making a comeback. Natural Predation. With all these fish around that don't even leave the sound anymore we dint stand a chance. I'm one of the younger guys here but in my 26 years I've never seen so many fish. For example sea bass by the thousands. When you pull a pot and there's 20+ 4-5" ones imagine what don't see. There's so many we even catch them in our conch pots. No throw in the rest. Stripers. Porgies. Blackfish. Dogfish. You brought back your the stripers and wiped out all the eels. Chubs. White perch. And if course LOBSTER. It's bad enough our state is forcing us to renew our license bye March 31. Or we loose them an additional expense for a lot of us. I obtained a license for my daughter who's in college and will not be fishing again this year but I have to pay pay pay. Feels like a dictatorship to me. So like I said. Any regulations and added expenses would not be helpful at all as we are barely staying afloat. Our boats and equipment are getting old and tired. No one here could afford anymore expenses. Thank you. Rich. Gambardella. Ct00476 Sent from my iPhone

Megan Ware

From: Alexander, Mark <Mark.Alexander@ct.gov>
Sent: Wednesday, March 22, 2017 8:51 AM
To: Megan Ware
Cc: lobster.mike@yahoo.com
Subject: Fw: Lobster meeting tonight

Hi Megan, please add Michael Theiler's comments (below) to the comment record for Addendum XXV. Thank you.

Mark Alexander

_____
From: Michael Theiler <lobster.mike@yahoo.com>
Sent: Tuesday, March 21, 2017 5:56 PM
To: Alexander, Mark
Subject: Lobster meeting tonight

Mark
I'm in Rhode Island and will be unable to attend tonight's public hearing on the lobsters. Although it is very important to me we ve been fighting the weather trying to complete our boat project. It looks as though the next few days will see freezing temperatures and I need to take advantage of today s sunshine. I will probably submit a public comment but would hope that you and your staff understand the predicament we are in. Despite years of management efforts we still do not have a rebuilt lobster stock in Area 6. I believe that any further management actions that further restrict our ability to harvest lobster will cause irreparable harm to the fishermen. For this reason I am asking you to support an option of "Status Quo" for Area 6.

MikeT

Sent from Yahoo Mail for iPhone<https://yho.com/footer0>

Megan Ware

From: deeplou@aol.com
Sent: Tuesday, March 21, 2017 8:12 PM
To: Megan Ware
Subject: Proposed changes to lobster harvest

I have just received an email from the Long Island Divers Association indicating some proposed changes to the laws regarding lobster harvest.
I am a scuba divers who enjoys being able to bring home a lobster or two. I do not use traps.
The three options being considered will considerably harm recreational harvesters of lobsters. The dive industry on Long Island in peril to begin with. Several dive shops have closed in recent years. In addition the number of commercial dive boats has decreased dramatically. The number has dropped to about 5 for all of Long Island and only one can take more than 6 passengers. The impact that these people have on lobster populations has to be miniscule. The long Island dive season only lasts from about May thru beginning of November to close lobster season during those months will most likely have a detrimental impact on those few boats.

In short the options being considered are rediculous and as noted by the lobstermen present not based on credible scientific evidence.

I urge you to abandon any changes, and if you are hell bent on making any change, recreational scuba harvesters (not using traps) be exempt from those changes

Lou Guardino

Megan Ware

From: Bob Sterner <bsterner@prodigy.net>
Sent: Tuesday, March 21, 2017 8:05 PM
To: Megan Ware
Subject: Lobster regs

Hello Megan,
There is no reason to change recreational diver lobster regulations. What divers take is dwarfed by the commercial harvest, and commercial fishers present evidence that the population is growing again. Increasing the carapace length by 1/4 inch could disappoint divers, who know they can take a gauge into any supermarket to determine the contents of their tanks are illegally short. Factors beyond our control such as warmer water temperatures may affect the local lobster population as well. Runoff from communities sprayed for West Nile Virus mosquitoes might further stress these arthropods that likely are sensitive to potent insecticides. If it's warm water and bug spray, bigger lobster sizes and shorter seasons won't make much difference in lobster populations.
Than you for considering this letter.
Sincerely,
Robert Sterner
327 Jackson St. Apt. 6
Hoboken. NJ 07030

Sent from my iPad

Megan Ware

From: Captain Jim <captainjim@gypsyblooddive.com>
Sent: Monday, March 20, 2017 12:27 PM
To: Megan Ware
Subject: LOBSTER FISHERY MANAGEMENT PLAN

Megan Ware
Atlantic States Marine Fisheries Commission
Arlington, VA 22201

Dear Megan,

My name is Captain Jim Wilson and I represent the dive charter boat Gypsy Blood located in Point Pleasant New Jersey. We have 15 Dive Shops and clubs that dive in New Jersey, and we dive year round. We mainly dive on wrecks and rock piles, with some beach and inlet diving.
I'm writing to respond to the Atlantic States Marine Fisheries Commission, American Lobster Board's Lobster Draft Addendum XXV.
We oppose any closure during the summer months. Based on our observations, we believe the summer is the incorrect time for season closure to protect egg bearing females. We actually see more egged-females in the winter months (December through March) than any other time during the year. Most female lobsters we capture July through October are clean of eggs.
Grabbing lobsters by hand is far more challenging and less efficient than using fixed gear. Divers are limited by time and distance underwater to find lobsters. Capturing one or two lobsters after a day of diving is a very good day for us. We get so few lobsters that divers should have a sub category under the recreational fishery and should be exempt from any additional closure dates as we have so little impact on the fishery.
In closing, we want to see a healthy lobster fishery for years to come. Therefore, we support, under:
Issue 1: Option B: 20% Increase in Egg Production

Issue 2: Management Tools; Option A: Management Tools Can Be Used Independently

Issue 3: Option C: Recreational Fishery Must Abide by Gauge Size Changes.

Issue 5: Uniform Regulations; Option B: Regulations Are Uniform across LCMAs 4 and 5

In addition, you may want to consider increased quotas for Dogfish and Ocean Pout to reduce the predators hunting the small lobsters.
Thank you for your consideration,

Captain Jim Wilson
Gypsy Blood Dive
Phone 973-949-4599
E-Mail captainjim@gypsyblooddive.com
www.gypsyblooddive.com
www.facebook.com/pages/Gypsy-Blood/247384671253

Megan Ware

From: Beverly Lynch <braelynch@gmail.com>
Sent: Monday, March 20, 2017 11:13 AM
To: Megan Ware
Subject: draft addendum xxv

Draft Addendum XXV

Since my husband is no longer lobstering, I am commenting because I want the residents of DE, MD, and VA to have access to local lobsters and to keep the few younger fishermen in business.
The catch reductions proposed in this addendum don't take into consideration the nature of the lobster fishery in DE, MD and VA. There are about seven lobstermen in these states. These states shouldn't be included in the Southern New-England management area. Your proposed restrictions might work in Massachusettes, but they could put all these fishermen out of business.
Most of these fishermen are old. Backs and knees wear out lifting pots at sea. Two MD fishermen are 60 and 63 years old. Except for the later fisherman's two sons, no young men are getting into this business and most of the rest are in their 50s.
Most of the lobsters caught in area 5 and landed in these three states were caught in black sea bass pots by those 60 something fishermen. They are no longer pot fishing for sea bass. Most of the lobsters landed in these three states today are caught in the western part of area 3. It takes around 8 hours for these fishermen to reach the grounds.

Your information is incomplete. Although you may have an estimate of numbers of pots and days fished, you don't know the condition of those pots, how many are in the water, the kind of bait used, the knowledge of the fishermen or the ability of the crews. The complicated proposals to increase lobster egg production by various percentages treat lobsters as if lobsters were chickens.

The following would apply to areas 3 and 5. I have no idea what would be appropriate for the other areas, nor do fishermen in those areas have any idea what would be approrpiate here.

Issue 1- option A, for areas 3 and 5, since these projections are guesstimates. Oviously if you cut catches drastically, there should be more egg production, unless there is some other cause for for less production.

Issue 2-option A

Issue 3- There is no recreational fishery in areas 3 and 5

Issue 4- option B, although I don't think areas 3 and 5 should have closures.

Issue 5- option A. Management should not be the same for all areas for reasons I've stated above.

Issue 6- Obtion A is simplest and allows the most flexibility, but most of these southern fishermen fish in the western section of area 3 or in area 5 . Maybe area 5 should be divided between north and south.

Issue 7- Virginia should be a de minimus state under option 2
The 40,000 pound limit should be increased so DE and MD could be de minimus states

DE, MD and VA don't need ANY more managment measures.

Megan Ware

From: McKown, Kim (DEC) <kim.mckown@dec.ny.gov>
Sent: Monday, March 20, 2017 9:57 AM
To: Megan Ware; Peter J. Clarke
Subject: FW: Lobsterman area 4

Follow Up Flag: Follow up
Flag Status: Completed

Hi Megan,

I received the comments below from a NJ fisherman.
Kim

-----Original Message-----
From: Linda VanSalisbury [mailto:linpearl123@icloud.com]
Sent: Saturday, March 18, 2017 1:08 PM
To: McKown, Kim (DEC) <kim.mckown@dec.ny.gov>
Subject: Lobsterman area 4

Point pleasant nj FV Heather Ann FV Blue moon
We would like to see a Season closure traps out of water.

Megan Ware

From: Frank Macalik <Frankm7@verizon.net>
Sent: Friday, March 17, 2017 2:08 PM
To: Megan Ware
Subject: Comments regarding American Lobster Draft Addendum XXV

Follow Up Flag: Follow up
Flag Status: Completed

March 17, 2017

Megan Ware
Atlantic States Marine Fisheries Commission
Arlington, VA 22201

Dear Megan,

My name is Frank Macalik and I represent the dive club F.U.B. (Fun-Under-Boats) located in Monmouth County New Jersey. We have 15 active members that dive in New Jersey, and we dive year round. We mainly dive on wrecks and rock piles, with some beach and inlet diving.

I'm writing to respond to the Atlantic States Marine Fisheries Commission, American Lobster Board's Lobster Draft Addendum XXV.
We oppose any closure during the summer months.

Based on our observations, we believe the summer is the incorrect time for season closure to protect egg bearing females. We actually see more egged-females in the winter months (December through March) than any other time during the year. Most female lobsters we capture July through October are clean of eggs.

Grabbing lobsters by hand is far more challenging and less efficient than using fixed gear. Divers are limited by time and distance underwater to find lobsters. Capturing one or two lobsters after a day of diving is a very good day for us. We get so few lobsters that divers should have a sub category under the recreational fishery and should be exempt from any additional closure dates as we have so little impact on the fishery.

In closing, we want to see a healthy lobster fishery for years to come. Therefore, we support, under:

Issue 1: Option B: 20% Increase in Egg Production

Issue 2: Management Tools; Option A: Management Tools Can Be Used Independently

Issue 3: Option C: Recreational Fishery Must Abide by Gauge Size Changes.

Issue 5: Uniform Regulations; Option B: Regulations Are Uniform across LCMAs 4 and 5

In addition, you may want to consider increased quotas for Dogfish and Ocean Pout to reduce the predators hunting the small lobsters.

Thank you for your consideration,

Frank Macalik
F.U.B. Dive Club
Frankm7@verizon.net
732 754 5345

Megan Ware

From: Gerard DeBernardis <GDeBernardis@cjspine.com>
Sent: Friday, March 17, 2017 10:36 AM
To: Megan Ware
Cc: frankm7@verizon.net
Subject: Lobster Closure

Follow Up Flag: Follow up
Flag Status: Completed

Megan Ware
Atlantic States Marine Fisheries Commission
Arlington, VA 22201

Dear Megan,
My name is Gerard DeBernardis and I am the president of the dive club F.U.B. (Fun-Under-Boats) located in Monmouth County New Jersey. We have 15 active members that dive in New Jersey, and we dive year round. We mainly dive on wrecks and rock piles, with some beach and inlet diving.
I'm writing to respond to the Atlantic States Marine Fisheries Commission, American Lobster Board's Lobster Draft Addendum XXV.
We oppose any closure during the summer months. Based on our observations, we believe the summer is the incorrect time for season closure to protect egg bearing females. We actually see more egged-females in the winter months (December through March) than any other time during the year. Most female lobsters we capture July through October are clean of eggs.
Grabbing lobsters by hand is far more challenging and less efficient than using fixed gear. Divers are limited by time and distance underwater to find lobsters. Capturing one or two lobsters after a day of diving is a very good day for us. We get so few lobsters that divers should have a sub category under the recreational fishery and should be exempt from any additional closure dates as we have so little impact on the fishery.
In closing, we want to see a healthy lobster fishery for years to come. Therefore, we support, under:
Issue 1: Option B: 20% Increase in Egg Production

Issue 2: Management Tools; Option A: Management Tools Can Be Used Independently

Issue 3: Option C: Recreational Fishery Must Abide by Gauge Size Changes.

Issue 5: Uniform Regulations; Option B: Regulations Are Uniform across LCMAs 4 and 5

In addition, you may want to consider increased quotas for Dogfish and Ocean Pout to reduce the predators hunting the small lobsters.

Thank you for your consideration,

Dr. Gerard DeBernardis
Director/Physician
Central Jersey Spine & Wellness, LLC
4251 US Highway 9
Freehold, NJ 07728
732-683-1800 (phone)
732-683-1090 (fax)

Megan Ware

From: Peter Dimeglio <peterdimeglio@gmail.com>
Sent: Thursday, March 16, 2017 10:06 PM
To: Megan Ware
Subject: Lobster

My name is Peter Dimeglio F/V Myway Brooklyn,N.Y. How can the asmfc propose new regulations on our fishery when their is insufficient data provided for area 4. We are being told that the data is coming from buzzards bay which has nothing to do with us. Why are all the areas being combined as southern New England when we are clearly different areas? I could deal with a guage increase but a seasonal closure would put us out of business!!! The other problem is as soon as a closure is in place the draggers will be ready to tow that there is no gear in the water. A major problem that is occurring is the lobster predators that are being protected. Ocean pout ,sea bass,and stripe bass play a big part of this. Ocean pout in the ocean is the number one culprit. There are millions of them in areas 4,5. Last fall the amount of egg bearing females that we were throwing back was insane. Every trap had 4 or 5 inside. Many people's livelihoods will be affected with any more regulations put on our industry. Please have up to date data and data from each area before you make more laws that are gonna hurt an already heavily regulated industry. Thank-you, Peter Dimeglio

Megan Ware

From: Robert VanSalisbury <robertvansalisbury@gmail.com>
Sent: Thursday, March 16, 2017 6:16 PM
To: Megan Ware
Subject: Area 4 lobsterman fv Heather Ann

Lobster Management measures issue 1 option B issue 2 Trap Reduction with winter closure issue 3 option B issue 4 option A with sub option A issue 5 option A

Megan Ware

From: Joseph Conrey <josephconrey@gmail.com>
Sent: Thursday, March 16, 2017 12:48 PM
To: Megan Ware
Subject: Lobster Addendum XXV

Hello Megan Ware,

Regarding the Lobster Addendum XXV, my preferred options/issues on the ones which impact recreational diving please see below:

sport divers support
Issue 1- Option B,
Issue 2- Option B,
Issue 3- Option C,
and Issue 5, Option B.

Thank you for your time.

Joseph Conrey
311 Old mill Rd.
Spring Lake Heights NJ 07762

Megan Ware

From: John Galvin <jag655@aol.com>
Sent: Thursday, March 16, 2017 10:45 AM
To: Megan Ware
Subject: Lobster Addendum XXV

Dear Ms. Ware,

I attended the meeting in Belmar last night reference the Lobster season recommendations, hosted by NJ Fish and Wildlife.
After reading the draft addendum XXV, it sounds like the recreational catch is approximately one precent of the total catch, probably much lower than that in New Jersey.
As a recreational diver, I wanted to voice my opinion to please consider the silent majority, the recreational lobster divers.
We support conservation measures, including an increase in gauge size as a proven effective egg production increase method.
We are opposed to a three month summer closure!
A summer closure would severely impact dive boats, dive shops and dive clubs.
Please refer to issues and options supported by recreational sport divers below.

Thank you,

John Galvin
311 Old Mill Road
Spring Lake Heights, NJ 07762

sport divers support
Issue 1- Option B,
Issue 2- Option B,
Issue 3- Option C,
and Issue 5, Option B.
NO 3 MONTH SUMMER CLOSURE!

Megan Ware

From: Chris Jazmin <kyd247@aol.com>
Sent: Tuesday, February 28, 2017 3:01 PM
To: Megan Ware
Subject: Lobster Draft Addendum XXV

Follow Up Flag: Follow up
Flag Status: Completed

Dear Bureaucrat,

Now you have done it. You have forced me into the political arena. Leave scuba divers alone. We have no impact on the lobster population because of the tremendous effort and skill required to capture them. They are there. We see them. But as a whole, rarely catch them. Any further limitations on my passion of lobster hunting will result in a negative impact on New Jersey. I would have no reason to make my seasonal return. Which in turn decreases income and tax revenue. Furthermore, this will fuel the decline of the New Jersey diving industry.
Leave diving for lobsters alone.
Sincerely,

Captain Chris Jazmin

Sent from my communicator.

Atlantic States Marine Fisheries Commission

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MEMORANDUM

TO: American Lobster Management Board

FROM: American Lobster Advisory Panel

DATE: April 20, 2017

SUBJECT: AP Recommendations on Draft Addendum XXV

The American Lobster Advisory Panel (AP) met via conference call on April 11, 2017 to review the comments given at the Draft Addendum XXV public hearings and provide AP recommendations to the Board. Each AP member was given the opportunity to comment on the issues in the addendum and provide general comments about lobster management. The following is a summary of the discussion had by the AP and their preferred management alternatives.

AP Members in Attendance:

Grant Moore (MA, Chair)
Sooky Sawyer (MA)
Lanny Dellinger (RI)
John Whittaker (CT)
Jack Fullmer (NJ)
Sonny Gwin (MD)

Issue 1: Increase in Egg Production

The AP unanimously supported a 0% increase in egg production (Option A). Members commented that the Board should give time for the recent regulatory changes to take effect as fishermen saw more lobsters, and eggers, in 2016. Two AP members commented that if the Board feels the need to take action, there should be no more than a 20% increase in egg production. Another member noted that there is nothing which prohibits the Board from considering an increase that is less than 20%, such as 10%. This AP member commented that if the Board chooses an option other than status quo, current trap reductions should cover the egg production increase in LCMAs 2 and 3. Another AP member commented that with the continuation of the current trap reductions, status quo will result in a greater than 0% increase in egg production.

Issue 2: Management Tools

The AP reiterated its desire for status quo and four members supported Option A, which allows for gauge size changes, season closures, and trap reductions to be used independently or in conjunction with one another. Those who supported Option A stated that is provides the greatest flexibility to industry. Two AP members commented that anything other than the currently scheduled trap reductions in LCMA 2 will kill the industry. They noted that an increase in the minimum size in LCMA 2 will shut down the fishery because larger lobster migrate offshore. Another AP member commented that increasing the minimum gauge size in LCMA 3

will prevent the offshore fishery from participating in markets which require smaller grade lobsters. One AP member commented that any of the management tools proposed in this addendum will permanently shut-down the LCMA 6 lobster fishery. He noted that changes to the gauge size will only further exacerbate inter-state commerce issues with Maine and LCMA 6 already has a season closure in September. He supported a v-notch program as a management tool to achieve increases in egg production. Finally, one AP member commented that if climate change is truly the cause of the SNE stock decline, why make any management changes given scientists are predicting continued warming in the coming years and the Board cannot control ocean temperature.

Issue 3: Recreational Fishery

The AP was not unanimous in its recommendation regarding the recreational fishery. Four AP members supported Option A, which requires the recreational fishery to abide by any management changes in the Addendum. They commented that whatever changes are applied to one portion of the fishery should be equally applied to all sectors of the fishery. One AP member supported Option B, which requires the recreational fishery to abide by gauge size changes and season closures. He commented that this option is closest to status quo. One AP member supported Option C, in which the recreational fishery only abides by gauge size changes. He commented that a summer closure would be detrimental to the recreational fishery since they are limited to the summer months when the weather is more amenable to diving.

Issue 4: Season Closures

The AP was unanimous is its recommendation that the most restrictive rule not apply to season closures (Sub-Option II). Two AP members supported Option B, which allows traps to stay in the water but prohibits the possession of lobsters during a season closure. One AP member supported Option C, which allows traps to stay in the water and permits non-trap gears to continue to land lobsters under the bycatch limit. He commented that Option C allows the Jonah crab fishery to continue while providing a small market for lobsters.

Issue 5: Standardized Regulations

Five AP members supported Option A, which does not require the standardization of management measures across LCMAs. They commented that the purpose of LCMAs is to reflect regional differences in the fishery and standardized regulations will negatively impact the industry. One member commented that if regulations are going to be standardized, they need to be uniform along the entire coast, including Maine. One AP member supported Option B, which standardizes regulations in LCMAs 4 and 5. He commented that, given New Jersey straddles two LCMAs, differences in the regulations between LCMAs 4 and 5 cause confusion in the recreational fishery.

Issue 6: Implementation of Management Measures in LCMA 3

Three AP members chose not to comment on this issue, stating that LCMA 3 should be allowed to decide how to deal with this issue. One AP member supported Option A, which maintains LCMA 3 as a single area. He commented that industry is concerned about the migration of

effort into GOM/GBK as well as the devaluation of a LCMA 3 permit, if the area is split along the 70°W line. Another AP member commented that there is no resource issue in LCMA 3 and so there is no need to change the regulations in the offshore area. He also noted that the recent National Monument and Deep-Sea Coral Amendments are providing additional protection to the lobster stock in this area.

Issue 7: De Minimis States
Two AP members supported Option B, which exempts de minimis states from implementing the regulatory changes resulting from this addendum in state waters. One of these AP members requested that the exemption be extended into federal waters. One AP member supported Option A, which requires the de minimis states to implement the regulatory changes in this addendum. He commented that any management changes should apply to all participants in the fishery.

General Comments:
One AP member commented that the sport dive fishery is limited to the summer months and asked the Board to avoid a summer season closure. He also commented that predation is a primary contributor to the lobster stock decline and the Board needs to pursue increases in the quota for dogfish and black sea bass.

One AP member stated that industry is united in its support for status quo and the addendum should be stalled until new data is added to the addendum or the addendum is re-written to address natural mortality. He commented that the increase in the black sea bass population will hurt any progress made in this addendum. He also noted that there is no information regarding the cultural or tourism aspects of the lobster fishery nor the indirect economic consequences that could result from this addendum. Finally, he disagreed with the natural mortality line in Figure 3 of Draft Addendum XXV, commenting that natural mortality has increased significantly in the last few years.

Another AP member commented that the current approach to managing lobster is not working. He also expressed concern about increases in the black seabass population in New England.

One AP member reiterated his support for status quo and commented that the industry is already doing enough to protect the lobster stock.

Another AP member commented that if the Board makes the wrong decision on Draft Addendum XXV, it will finish the LCMA 2 inshore fishery, which is the last remaining viable inshore fishery in SNE. He commented that large reductions will result in the loss of infrastructure and docks which once gone, cannot be gained back due to the prevalence of coastal development. He also noted that it takes 10 years to see the results of management changes due to the slow growth of lobsters. As a result, the Board should give time for the benefits of the recent management changes to come to fruition.

Finally, one AP member echoed the comments that the Board's decision in this addendum could seriously hinder the future of the lobster fishery. He noted that the lobster fishery is moving offshore but commented that it is not up to ASMFC to dictate how this happens or when fishing is no longer economically viable. He stated that industry has done a lot to protect the resource and he questioned whether anything good will come out of this addendum.

Atlantic States Marine Fisheries Commission

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MEMORANDUM

March 28, 2017

TO: **American Lobster Management Board**

FROM: **Law Enforcement Committee**

RE: **Review of American Lobster Draft Addendum XXV**

The Law Enforcement Committee (LEC) of the Atlantic States Marine Fisheries Commission (ASMFC) reviewed management options contained in American lobster Draft Addendum XXV 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. Target Increase in Egg Production
The LEC has no comments or recommendations on this issue.

Issue 2. Management Tools
The LEC did not make a recommendation specific to the 3 options presented in the draft addendum. It cautions, however, that trap reductions as a management tool are likely to be ineffective because of enforceability problems with offshore fisheries, where an increasing portion of effort in the fishery is occurring. There can be no meaningful enforcement of trap limits without electronic tracking or the development of significant offshore enforcement platforms. Other recommendations regarding gauge size changes or seasonal closures are included later in this memorandum.

Issue 3. Recreational Fishery
The LEC strongly supports consistency across the board between recreational and commercial management measures, particularly with respect to gauge size.
The LEC recommends that if a commercial season closure is implemented, a strict maximum recreational bag limit be applied and enforced, at the least.
Because States typically allow a small number of recreational traps per person, consistency with commercial trap reductions seems less critical.

Issue 4. Season Closures

The LEC supports Option A and recommends that lobster traps be removed from the water during closed seasons.
The LEC supports Sub-Option A requiring the most restrictive rule to apply to season closures if a fisherman is authorized to fish in more than one LCMA.
The LEC recognized the potential impact this would have on Jonah crab and whelk harvest, but believes that leaving traps in the water will reduce the effectiveness of a seasonal closure through continued trapping and mortality of lobster, economic incentives to retrieve and land lobsters illegally during the closed season, increased numbers of lost or derelict traps, and increased likelihood of whale entanglements.

Issue 5. Uniform Regulations
The LEC strongly reaffirms its long-standing recommendation for consistency and uniform regulations. Inconsistent regulations with a "most restrictive" requirement may be of some help, but once product leaves the dock, the least restrictive regulation becomes the enforceable standard. Regulatory inconsistency decreases the likelihood of a successful prosecutions.

Issue 6. Management Measures in LCMA 3
The LEC recommends Option A (status quo) in light of the significant, existing problems with offshore enforcement. Until enforcement tools for monitoring and checking the offshore lobster trap fishery are enhanced, adopting a zonal split in LCMA 3, with its attendant trap-tag and transit complications, would depend almost entirely on voluntary compliance.

Issue 7. De Minimis States
The LEC did not comment on this issue.

The LEC appreciates the opportunity to provide enforcement advice to the American lobster Management Board regarding Draft Addendum XXV.

Atlantic States Marine Fisheries Commission

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MEMORANDUM

TO: American Lobster Management Board

FROM: American Lobster Technical Committee

DATE: April 24, 2017

SUBJECT: TC Comments on Lobster Addendum XXV

As the Board prepares to consider action on Draft Addendum XXV, the American Lobster Technical Committee (TC) would like to take this opportunity to address questions raised at the public hearings and reiterate their position on the management tools currently included in the document.

At the Rhode Island and Massachusetts public hearings, questions were raised regarding the trap reduction analysis and whether it is based on total trap allocations or the number of active traps. The TC confirms that the trap reduction analysis is based on the number of traps reported fished in MA, RI, CT, and NY, as presented in Table 3.2.3.2 of the 2015 Benchmark Stock Assessment. In some of these years, no data from Rhode Island were available and a regression analysis was used to estimate the number of traps that would have been contributed by RI fishermen in those years. The number of active traps were then related to the model-based exploitation rates to find a relationship between fishing effort and fishing mortality. The TC highlights that the analysis predicts, at most, a 13.1% increase in egg production from a 25% active trap reduction, with much uncertainty around this value and the proposed relationship between traps and exploitation. The uncertainty increases with larger trap reductions as there are currently no data on lower active trap totals in SNE, and the analysis would require an extrapolation outside the domain of the existing data. The TC also notes that, as the Addendum is currently written, trap reductions apply to total trap allocations, not active traps. Given the above caveats, the TC cautions the Board against pursuing further trap reductions as a tool for increasing egg production.

The TC also reiterates that there is the greatest confidence in the predicted egg production increases from gauge size changes, given this analysis has the least amount of uncertainty. Both season closure and trap reduction analyses make assumptions about fishermen behavior, distribution of the resource, and the associated exploitation rate which add uncertainty into the predictions. Specifically, the season closure analysis assumes that fishermen do not increase effort in the open season to recoup losses from the closed season. The trap reduction analysis assumes a 25% reduction in SNE active traps (includes data from MA through NY) and relates all changes in exploitation to this reduction. Further, the TC notes that the conservation value associated with any of these management tools may decrease if disparate regulations are implemented in different LCMAs given the ability of both lobsters and dual-permit holders to move in both space and time.

Lastly, the TC would like to reiterate to the Board that a 20%-60% increase in egg production, while beneficial to the stock, is likely insufficient to stabilize stock conditions without improved recruitment or natural mortality rates. We respectfully suggest that the Board be explicit as to their goals and expected outcomes of any management measures in relation to impacts to the stock.

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

JUL 21 2016

Mr. David Borden, Chair
American Lobster Management Board
c/o Atlantic States Marine Fisheries Commission
1050 N. Highland Street, Suite 200 A-N
Arlington, VA 22201

Dear David:

Last year was a watershed year in lobster management. The Commission, states, and NOAA Fisheries created the novel Lobster Trap Transfer Database and successfully rolled out the Commission's groundbreaking Trap Transfer Program. In addition, the SNE stock gained new protections as state and federal managers implemented measures to reduce exploitation (Addendum XVII) and reduce traps (Addendum XVIII), with additional protective measures (trap banking and aggregate trap limits in Addenda XXI and XXII) on deck for future implementation.

To date, our SNE management efforts have been recommended and enacted based upon our understanding of the science that existed at the time. That understanding changed with the new stock assessment in 2015. This latest assessment unequivocally shows that the SNE stock is in a continued state of recruitment failure and in far worse condition than previously thought. The assessment and subsequent analyses by the Lobster Technical Committee (TC) indicated that significant reductions in exploitation are needed to stabilize the stock at current levels. Scientists are still trying to better understand the situation, but it appears that our recent SNE management efforts – so promising just a short time ago – may need to be augmented, amended, or altogether redone.

With so much uncertainty, it appears imprudent for us to publish a proposed rule for Federal trap cap and banking measures recommended within the context of the previous stock assessment from 2009. In light of this, we have suspended our Addenda XXI and XXII rulemaking efforts until we have a better understanding of our collective response to the SNE stock assessment. Nevertheless, we will continue to offer trap transferability to the industry as a tool to optimize their businesses and adjust to the annual trap reductions in Areas 2 and 3.

As we enter the next stage of our SNE management program, the TC is presently analyzing potential measures that would result in a 20- to 60-percent increase in SNE egg production. Recall that that Board chose this egg production approach at the May 2016 meeting with the hope that doing so would provide a meaningful response to the recent stock assessment. Although we have not seen the TC's final analysis, we are concerned that an egg production approach may not be measurable and, alone, will not provide sufficient reductions in exploitation to help stabilize the SNE stock. If the TC's report confirms this, we urge the Board to consider further action to adopt additional measures to sufficiently reduce exploitation and foster

recruitment, with a focus on metrics that align more directly with the Lobster Plan's biological reference points, such as effective exploitation and reference abundance.

Finally, lobster harvester reporting is another issue that the Board will discuss at the August meeting. As I stated in my response to the Commission's letter to me on the topic dated May 26, 2016, we agree that improvements in reporting are achievable, however; we believe that such changes should be done through the Commission process and in a manner consistent with the states and the Lobster Plan. I encourage the Board to formally consider the data collection parameters of the Lobster Plan to more effectively address this issue.

Thank you for your interest in and commitment to the conservation of this important fishery and resource.

Sincerely,

John K. Bullard
Regional Administrator

cc: ASMFC American Lobster Management Board

NEW JERSEY DIVISION OF
Fish and Wildlife
P.O. Box 400
Trenton, NJ 08625-0400
David Chanda, Director

NEW YORK
STATE OF
OPPORTUNITY
Department of Environmental Conservation

Division of Marine Resources
205 N. Belle Mead Rd, Suite 1
East Setauket, NY 11733
James Gilmore, Director

Memorandum

April 3, 2017

TO: ASMFC American Lobster Management Board

FROM: Peter Clarke (NJDEP) and Kim McKown (NYDEC)

SUBJECT: LCMA 4 Proposal State and Federal Regulatory Consistency for Closed Seasons

This memo addresses two state – federal consistency concerns that have developed through the implementation of the 10% reduction requirement of Addendum XVII. These items relate to trap removal and implementation of the most restrictive rule during the closed season. These concerns are discussed below.

Trap Removal:

Background

In order to accomplish a required 10% reduction in harvest as outlined by ASMFC Addendum XVII, Lobster Conservation Management Area (LCMA) 4 implemented rules requiring v-notch all egg bearing females coupled with a seasonal closure from February 1 to March 31. During the Winter 2012 American Lobster Board (Board) meeting, the Board decided that all directed fishery lobster traps must be removed from the water. The Board also decided that if a closed season extended four weeks or longer, a two-week grace period for removal of lobster traps and a one-week grace period for setting un-baited lobster traps would be allowed. In accordance with these determinations, NJ Division of Fish and Wildlife (DFW) and NY Department of Environmental Conservation (DEC) developed closed regulations that required trap removal with the appropriate grace period, but also allowed for the traps to remain in the water if they were being legally fished for other species (non-lobster directed traps). NY DEC and CT Department of Environment and Energy (DEEP) adopted similar rules for LCMA 6 (see Appendix 1).

Upon evaluation in 2014, the ASMFC Lobster Management Board determined that LCMA 4 did not reach the required 10% reduction in landings for fishing year 2013. Due to the reduction not being met with the combined v-notching and seasonal closure a seasonal closure from April 30-May 31 was applied alone for the 2015 fishing year as approved by the Board. The NJ DFW

and NY DEC closed season rules were revised to implement the new closure dates and new removal grace period, but the allowance for traps to remain in the water to allow fishermen to continue to legally fish for other species remained (see below).

In December 2014, the NJ DFW and NY DEC applied the seasonal closure with the following regulatory language:

For NJ; "A person fishing in ASMFC Lobster Management Area (LMA) 4 and/or 5 or that has designated LMA 4 and/or 5 for fishing on their Federal Fisheries or State Lobster Pot Permit shall not take or attempt to take, land, have in his or her possession, sell, or offer to sell any American lobster during the closed season of April 30 through May 31, inclusive. During the closed season, no dealer shall accept, have in his or her possession, buy or offer to buy, sell, or offer to sell any American lobster harvested from LMA 4 and/or 5. During the closed season, all lobster traps in LMA 4 and/or 5 must be removed from the water. However, a licensee shall have a two-week period from when the season closes to accomplish removal of all lobster traps. In addition, unbaited lobster traps may be set one week prior to the season reopening. *If the license holder is harvesting other species with lobster trap gear, the lobster trap gear does not need to be removed; however, it shall be tended at least every 30 days*."

For NY; "The harvest and landing of lobsters from LMA 4 is prohibited from April 30th through May 31st. *During the April 30th through May 31st closure, lobster permit holders who use lobster traps or pots may set un-baited lobster traps or pots one week prior to the end of the closed season. No lobster trap or pot may be in the water from April 30th to May 24th, unless the lobster permit holder also holds appropriate license(s) to harvest other species from his or her traps or pots.*"

The key wording for both statutory regulations is the ability of lobster pot fishermen to continue harvesting other species, particularly Jonah crabs during the closed period.

<u>Current Issue</u>

In 2015, a Federal Registry Notice was released stating that all lobster gear needed to be removed from the water for extent of the closed period. This places an unfair burden on fishermen to remove gear for a 32 day closure. It takes a fisherman with a 1200 trap allocation in LCMA 4 approximately 12 days to remove all his gear. Coupled with poor weather during April, the removal of gear could take up to 4 weeks to accomplish effectively phasing in the seasonal closure over the course of a month instead of the required 32 days.

For the last 45 years, the Area 4 lobster grounds which are soft bottom have been protected from mobile gear (scallop dredge and otter trawl) creating an effective sanctuary for lobsters and other marine fish. With the opening of this ground, the mobile fleet will move in and fish heavily upon the resources there. Lobster mortality will increase by up to 15 percent and the mobile gear will cause significant damage to previously protected habitat.

Because of these reasons, we urge the ASMFC Lobster Management Board to adopt one of the

following options for trap removal for Area 4 fishermen in both State and Federal waters

Option 1 (preferred):
Allow LCMA 4 fishermen the ability to continue fishing fixed lobster gear for other legal species (Jonah crab) during the closed period.

Option 2:
Allow LCMA 4 fishermen to keep traps in the water that have been disabled by removing the escape panel or permanently opening the top of the trap so that any animal that entered the trap could escape.

If approved, we ask the ASMFC to forward the Board findings to NMFS for an immediate retraction to the current Registry to allow these changes to take place for the 2017 fishing season.

Most Restrictive Rule:
Background:
LCMA's 4 and 6 both implemented closed seasons to accomplish the required 10% reduction in harvest of Addendum XVII, but during different times of the year. The LCMA 6 closed season is from September 8 through November 28, while the LCMA 4 closed season was originally from February 1 through March 31 and was revised to April 30 through May 31. Since there are NY lobstermen with joint LCMA 4 and 6 trap allocations, the question of whether the most restrictive rule applied to closed seasons was discussed at the Winter 2012 Board meeting. Due to concerns of potential shifting of effort, the Board determined that LCMT measures required the most restrictive rule apply to participants with multiple LCMA permits.

Due to the Board's determination, NY DEC adopted regulations that required permit holders with multiple area designations to abide by the most restrictive rule. The following is NY's most restrictive rule: "*Permittees who designate more than one LMA in their lobster permit application shall abide by the closed seasons rules in all designated LMAs, regardless of where they are fishing. Any person who possesses more than one commercial lobster permit shall abide by the closed season rules of the LMAs designated on all of their permits, regardless of where they are fishing. Any permittee who fails to designate an LMA on their application shall abide by all the closed season rules of the LMAs 1, 2, 3, 4, 5, 6, and Outer Cape Cod (OCC). The department shall provide license holders written notice of the current closed season rules of LMAs 1, 2, 3, 4, 5, 6 and OCC annually*.

Current Issue:
The 2015 Federal Registry Notice was silent about the most restrictive rule. NOAA Fisheries Lobster Information Sheet, (https://www.greateratlantic.fisheries.noaa.gov/regs/infodocs/lobsterinfosheet.pdf), has a section on the most restrictive rule, specifically mentioning trap allocations, lobster size, v-notch rules, trap and vent size; but doesn't include season closures. Currently NOAA fisheries is not requiring lobster permit holder with joint LCMA 4 and 5 trap tag allocations to abide by the most restrictive rule as was required in NY.

NY's waters include 2 Lobster Management Areas (LCMA) 6 and 4. In addition, the south fork of Long Island is at the confluence of LCMA 6, 4, and 2. Many of NY's south shore lobster permit holders, in particular those on the south fork near Montauk, have traditionally fished in areas that now are part of multiple LMAs. These permit holders used to regularly move their pots throughout the year following the lobsters. Due to the implementation of the most restrictive rule, these lobstermen have had to remove one of the LCMA's that they historically fished in from their permit. This has caused significant financial hardship. Federal permit holders with joint LCMA 4 and 5 permits are not required to do this and are not impacted by this hardship.

Because of these reasons, we urge the ASMFC Lobster Management Board to adopt one of the following options for the most restrictive rule as it applies to closed seasons for permit holders with multi-area trap tag allocations in both State and Federal waters.

Option 1 (preferred):
Exempt closed seasons from the most restrictive rule (as currently done for federal permits).

Option 2:
Mandate that both federal and state multi-area permit holders abide by the most restrictive rule, which means they must abide by all season closures implemented in the areas listed on their permits.

If option 1 is approved, NY will remove the most restrictive language as it applies to closed seasons from NY state regulations. If option 2 is approved we ask the ASMFC to forward the Board findings to NMFS and request that they implement the most restrictive rule for closed seasons for federal permit holders.

Thank you for your consideration.

Appendix 1

LCMA 6 rules:

NY DEC:
"No lobster may be taken from Atlantic States Marine Fisheries Commission Area Six from September eighth through November twenty-eighth pursuant to the recommendations of the Area's Lobster Conservation Management Team as required by the Interstate Fishery Plan for Lobsters adopted by the Atlantic States Marine Fisheries Commission.

b. During the September eighth through November twenty-eighth closure, lobster permit holders who use lobster traps or pots shall remove lobster traps and pots from the water by September twenty-second.

c. No lobster trap or pot may be in the water from September twenty-second until November fourteenth unless the lobster permit holder also holds a permit or license that authorizes them to harvest other species from their lobster traps or pots.

d. Lobster permit holders may set unabated lobster traps or pots beginning November fourteenth.

e. Lobster permit holders may set baited lobster traps or pots beginning November twenty-first."

CT DEEP:
Season

1. The closed season for Lobster Management Area (LMA) 6 (Long Island Sound and western Block Island Sound) is September 8 through November 28, inclusive, and applies to both recreational and commercial fisheries and all gears. Between those dates possession of lobsters taken from LMA 6 or from traps with LMA 6 trap tags is prohibited.
2. All lobster gear must be removed from the water during the closure, except that the ASMFC plan allows fishermen two weeks at the beginning of the closure period (September 8 through September 21) to remove gear and two weeks prior to the late fall reopening (November 15 through November 28) to redeploy the gear. Traps cannot be baited until one week prior to reopening (November 22).
3. An exception to the gear removal requirement is provided for fishermen who hold a conch (whelk) license for those lobster pots being actively fished for whelk. The take and landing of lobsters during these exception periods is prohibited."