Atlantic States Marine Fisheries Commission

American Lobster Management Board

October 21, 2024
9:45 a.m. – 12:15 p.m.

Draft Agenda

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

1.	Welcome/Call to Order *(P. Keliher)*	9:45 a.m.
2.	Board Consent • Approval of Agenda • Approval of Proceedings from August 2024	9:45 a.m.
3.	Public Comment	9:50 a.m.
4.	Progress Update on Benchmark Stock Assessment for American Lobster *(T. Pugh)*	10:00 a.m.
5.	Consider Annual Data Update of American Lobster Indices *(T. Pugh)*	10:10 a.m.
6.	Consider Addendum XXXI on Postponing Implementation of Addendum XXVII Measures for Final Approval **Final Action** • Review Options and Public Comment Summary *(C. Starks)* • Review Advisory Panel Report *(C.Starks)* • Consider Final Approval of Addendum XXXI	10:45 a.m.
6.	Consider Fishery Management Plan Reviews and State Compliance Reports for American Lobster and Jonah Crab for the 2023 Fishing Year *(C. Starks)* **Action**	11:30 a.m.
8.	Discuss Vessel Tracking Requirements of Addendum XXIX *(C. Starks)* **Possible Action**	11:45 a.m.
9.	Other Business/Adjourn	12:15 p.m.

The meeting will be held at The Westin Annapolis (100 Westgate Circle, Annapolis, Maryland; 88.627.8994) and via webinar; click here for details.

Sustainable and Cooperative Management of Atlantic Coastal Fisheries

MEETING OVERVIEW

American Lobster Management Board
October 21, 2024
9:45 a.m. – 12:15 p.m.

Chair: Pat Keliher (ME) Assumed Chairmanship: 02/24	Technical Committee Chair: Tracy Pugh (MA)	Law Enforcement Committee Rep: Rob Beal (ME)
Vice Chair: Renee Zobel (NH)	Lobster Advisory Panel Chair: Grant Moore (MA) Jonah Crab Advisory Panel Chair: Sonny Gwin	Previous Board Meeting: August 6, 2024
Voting Members: ME, NH, MA, RI, CT, NY, NJ, PA, DE, MD, DC, PRFC, VA, NMFS, NEFMC (12 votes)		

2. Board Consent

- Approval of Agenda
- Approval of Proceedings from August 2024

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. Progress Update on Benchmark Stock Assessment for American Lobster (10:00-10:10 a.m.)

Background

- The benchmark stock assessment for American lobster is in progress with results expected in 2025.
- The Assessment Methods Workshop was held in July 2024. The Assessment Workshop is scheduled for Winter 2025.

Presentations

- Progress Update on Benchmark Stock Assessment for American Lobster by T. Pugh

5. Consider Annual Data Update of American Lobster Indices (10:10-10:45 a.m.)

Background

- An annual Data Update process between American lobster stock assessments was recommended during the 2020 stock assessment to more closely monitor changes in stock abundance. The objective of this process is to present information—including any potentially concerning trends—that could support additional research or consideration of changes to management. Data sets updated during this process are generally those that indicate exploitable lobster stock abundance conditions expected in subsequent years and include:

young-of-year settlement indicators, trawl survey indicators, and ventless trap survey sex-specific abundance indices.
- This is the fourth Data Update and provides an update of last year's review with the addition of 2023 data. Indicator status (negative, neutral, or positive) was determined relative to the percentiles of the stock assessment time series (i.e., data set start year through 2018) **(Briefing Materials).**

Presentations
- Annual Data Update of American Lobster Indices by T. Pugh

6. Consider Addendum XXXI on Postponing Implementation of Addendum XXVII Measures for Final Approval (10:45-11:30 a.m.) Final Action

Background
- In August 2024, the Board initiated Draft Addendum XXXI. The Addendum considers postponing implementation of some of the measures of Addendum XXVII, approved in May 2023. Specifically, the Addendum considers postponing implementation of v-notch definitions and the gauge and vent size changes triggered under Section 3.2 of Addendum XXVII until July 1, 2025 **(Briefing Materials).**
- One virtual public hearing was held in September. The public comment period ended on October 6, 2024 **(Briefing Materials).**
- The Lobster Advisory Panel met September 25, 2024 to review the options of Draft Addendum XXXI **(Briefing Materials).**

Board actions for consideration at this meeting
- Addendum XXXI Final Approval and Public Comment Summary by C. Starks
- Advisory Panel Report by G. Moore

Board actions for consideration at this meeting
- Consider Final Approval of Addendum XXXI

7. Consider Fishery Management Plan Reviews and State Compliance Reports for American Lobster and Jonah Crab for the 2022 Fishing Year (11:30-11:45 a.m.) Action

Background
- State compliance reports for American lobster and Jonah crab were due August 1, 2024.
- The Plan Review Teams reviewed state compliance reports and compiled the annual FMP Reviews for lobster and Jonah crab for the 2023 Fishing Year (**Briefing Materials**).
- Delaware, Maryland, and Virginia have requested and meet the requirements for *de minimis* in the lobster and Jonah crab fisheries.

Presentations
- FMP Reviews for American Lobster and Jonah Crab for the 2023 Fishing Year by C. Starks

Board Actions for Consideration at the Meeting
- Approve Fishery Management Plan Reviews and state compliance reports for American Lobster and Jonah Crab for the 2023 Fishing Year
- Approve de minimis requests.

8. Discuss Vessel Tracking Requirements of Addendum XXIX (11:45-12:15 p.m.) Possible Action
Background • In August the Board reviewed a report from the Vessel Tracking Workgroup on potential modifications to the 24/7 vessel tracking requirement which still ensure monitoring of fishing activity while acknowledging that fishermen also use boats for personal/nonfishing reasons, and reviewing existing processes for when Vessel Monitoring Systems (VMS) devices can be turned off. • The Law Enforcement Committee met in October to discuss enforceable definitions of fishing **(Briefing Materials).**
Presentations • Law Enforcement Discussion on Fishing Definition by C. Starks
Board Actions for Consideration at the Meeting • Determine next steps

9. Other Business/Adjourn (12:15 p.m.)

American Lobster and Jonah Crab TC Task List

Activity level: High

Committee Overlap Score: Medium

Committee Task List
Lobster TC • August 1, 2024: Annual Compliance Reports Due • Fall 2024: Annual data update of lobster abundance indices • Summer 2024-Spring 2025: Development of lobster stock assessment *Jonah Crab TC* • August 1, 2024: Annual Compliance Reports Due • Fall 2024: Annual data update of Jonah crab abundance indices

TC Members

American Lobster: Kathleen Reardon (ME), Joshua Carloni (NH), Jeff Kipp (ASMFC), Justin Pellegrino (NY), Corinne Truesdale (RI), Chad Power (NJ), Tracy Pugh (MA, Chair), Craig Weedon (MD), Somers Smott (VA), Renee St. Amand (CT), Burton Shank (NOAA), Allison Murphy (NOAA)

Jonah Crab: Corinne Truesdale (RI, Chair), Derek Perry (MA), Joshua Carloni (NH), Chad Power (NJ), Jeff Kipp (ASMFC), Allison Murphy (NOAA), Kathleen Reardon (ME), Justin Pellegrino (NY), Burton Shank (NOAA), Craig Weedon (MD)

Lobster Stock Assessment Subcommittee Members: Tracy Pugh (MA, TC Chair), Conor McManus (RI), Joshua Carloni (NH), Kathleen Reardon (ME), Burton Shank (NOAA), Jeff Kipp (ASMFC)

DRAFT PROCEEDINGS OF THE

ATLANTIC STATES MARINE FISHERIES COMMISSION

AMERICAN LOBSTER MANAGEMENT BOARD

The Westin Crystal City
Arlington, Virginia
Hybrid Meeting

August 6, 2024

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INDEX OF MOTIONS

1. **Approval of agenda** by consent (Page 1).

2. **Approval of Proceedings of April 2024** by consent (Page 1).

3. **Motion to initiate an addendum to delay the biological measures implementation date of Addendum XXVII until July 1, 2025. Specifically, biological measures under Section 3.1 that created common size limits for state-only and federal permit holders fishing in Outer Cape Cod would be implemented effective July 1, 2025. Similarly, management measures triggered under Section 3.2 would be implemented by July 1, 2025 starting with the Year 1 measures, and subsequent management measures (additional minimum size increase in Area 1 in year 3; vent size increase in year 4; maximum size reduction in Area 3 and Outer Cape Cod) would be implemented by July 1 of the calendar year for which they are required. Trap tag issuance regulations regarding the routine issuance of 10% additional trap tags in Areas 3 and 1 above the trap limit or allocation would remain unchanged** (Page 18). Motion by Dan McKiernan; second by Steve Train. Motion passes (9 in favor, 1 opposed) (Page 22).

4. **Motion to approve Addendum XXX, effective today** (Page 24). Motion by Doug Grout; second by Dan McKiernan. Motion passes with one abstention (NOAA Fisheries) (Page 26).

5. **Move to adjourn** by consent (Page 31).

ATTENDANCE

Board Members

Pat Keliher, ME (AA)
Rep. Allison Hepler, ME (LA)
Stephen Train, ME (GA)
Renee Zobel, NH, proxy for Cheri Patterson (AA)
Dennis Abbott, NH, proxy for Sen. Watters (LA)
Doug Grout, NH (GA)
Dan McKiernan, MA (AA)
Rep. Sarah Peake, MA (LA)
Ray Kane, MA (GA)
Jason McNamee, RI (AA)
Eric Reid, RI, proxy for Sen. Sosnowski (LA)
David Borden, RI (GA)
Dr. Justin Davis, CT (AA)
Rep. Joseph Gresko (CT) (LA)
Bill Hyatt, CT (GA)
Marty Gary, NY (AA)
Jim Gilmore, NY, proxy for Assy. Thiele (LA)
Scott Curatolo-Wagemann, NY, proxy for Emerson Hasbrouck (GA)
Joe Cimino, NJ (AA)
Adam Nowalsky, NJ, proxy for Sen. Gopal (LA)
Jeff Kaelin, NJ (GA)
John Clark, DE (AA)
Craig Pugh, DE, proxy for Rep. Carson (LA)
Roy Miller, DE (GA)
Michael Luisi, MD, proxy for L. Fegley (AA)
David Sikorski, MD, proxy for Del. Stein (LA)
Shanna Madsen, VA, proxy for Jamie Green (AA)
Sen. Danny Diggs, VA (LA)
James (JJ) Minor, VA (GA)
Allison Murphy, NMFS

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

Ex-Officio Members

Tracy Pugh, Technical Committee Chair

Staff

Bob Beal
Toni Kerns
Tina Berger
Madeline Musante
Caitlin Starks
Jeff Kipp
Tracy Bauer
James Boyle
Katie Drew
Jainita Patel
Chelsea Tuohy

The American Lobster Management Board of the Atlantic States Marine Fisheries Commission convened in the Jefferson Ballroom of the Westin Crystal City Hotel, Arlington, Virginia, via hybrid meeting, in-person, and webinar; Tuesday, August 6, 2024, and was called to order at 2:45 p.m. by Chair Pat Keliher.

CALL TO ORDER

CHAIR PATRICK C. KELIHER: I'm going to call the Lobster Board meeting to order. Good afternoon, everybody, my name is Pat Keliher; I am the Chair of the American Lobster Board. We are a couple minutes behind schedule. We've got a couple topics that may need a little additional time today, and I do have several members of the public that have traveled a long way, that I'm sure are going to want to speak during some of the topics where motions potentially are going to be made.

APPROVAL OF AGENDA

CHAIR KELIHER: Before we get to the meat of the agenda, do I have any objections to what the agenda is? Do I get approval of the agenda? Any modifications need to be made? Seeing none; approval of the agenda from April, 2024.

APPROVAL OF PROCEEDINGS

CHAIR KELIHER: Did everybody have an opportunity to review those? Any additions, changes needed? Seeing none; we'll approve those minutes by consent.

PUBLIC COMMENT

CHAIR KELIHER: Is there anybody from the public that would like to speak on items that are not on the agenda? Again, items that are not on the agenda. Anything not related to Addendum XXVII or XXX. Not seeing any members of the public that want to speak, great.

PROGRESS UPDATE ON BENCHMARK STOCK ASSESSMENT FOR AMERICAN LOBSTER

CHAIR KELIHER: We're going to go right to Jeff Kipp, who has got a quick update on the Benchmark Stock Assessment. Jeff.

MR. JEFF J. KIPP: I'll just be giving a brief update on the ongoing benchmark assessment for lobster. Just to touch on the assessment timeline milestones that we've worked through so far. We did have a data workshop back in February of this year, and that was virtual, working through review of our available datasets and identifying data tasks.

We did just recently complete our first assessment workshop a couple weeks ago in New Bedford. We have had several periodic webinars and a number of biweekly modeler meetings between these workshops, and will continue with those as needed, moving forward in the process.

Just to touch on the topics that were covered at that first assessment workshop. We reviewed development of continuity models. I got into growth modeling and environmental driver data and analyses. We then talked about advancements to the continuity models that we'll be working on from this point forward, and also some alternative index of abundance development. We did review the remaining timeline with that workload in mind, and the SAS did express some concern with that timeline. There was also a couple of challenges we've run into so far. We've had slow access to confidential data for some external collaborators we're working with outside of the Stock Assessment Subcommittee, and also it was noted that 2023 data, which is the terminal year of this assessment will not be complete until around the time of our tentatively scheduled final workshop later this fall.

The SAS is recommending extending the assessment timeline one commission meeting cycle, and we just note that this will sync the timeline if we do extend, with the completion of the 2020 benchmark assessment, which was presented to the Board at the 2020 annual meeting in October. The items up

on the screen in black text here show the remaining milestones for our assessment timeline.

The dates crossed out are the originally scheduled dates for these remaining timelines, and the text in red is what the SAS is proposing for the extended timeline to complete the assessment. We would have a final assessment workshop, and we're proposing shifting that to February of next year, with the peer review workshop shifted to August of next year.

Then plans to present the assessment and peer review reports to the Board at the annual meeting in October of next year. That concludes my update, so looking for if there are any concerns or comments on the proposed shift to the timeline, and just any questions on the assessment update in general.

CHAIR KELIHER: Back to the Board, does anybody have any questions or comments for Jeff, or any concerns about that delay? I see one hand, Jason.

DR. JASON McNAMEE: No concern. Jeff, I was just wondering, and you might not be able to answer this, but just wondering if you could expand a little bit. I'm curious as to what the data issues were. Maybe to tailor your answer, I guess what I would be most interested in, is there something we can fix there so it doesn't happen again, or it was just a thing and you had to work through it?

MR. KIPP: Yes, I don't know that there is something there that we can fix. It was sort of a unique situation where we were working with some external folks to get access to commercial data, and that is to develop some socioeconomic indicators that we are hoping to include to advance the set of Model 3 indicators that we developed in the assessment, to include more of those socioeconomic aspects.

Just with those folks not being official members of the Stock Assessment Subcommittee, giving that confidential data access was a challenge. A note that came along from that was that they were funded to do that work through Sea Grants, and also to help with the assessments as part of that funding. That funding mechanism is what allowed for that access to those data.

CHAIR KELIHER: Renee.

MS. RENEE ZOBEL: Yes, just to follow up on exactly that point, Jeff. I wrote that down as something that we run into a lot with our states and confidentiality regulations. I'm wondering if in the future, I know they were funded through Sea Grant, but if there is a way to contract them through ASMFC. I know that a number of states have regulations on the books where that would be an easy checkmark for access, versus somebody who is from an external or academic agency.

CHAIR KELIHER: Thanks, Renee, that is a good suggestion. Anybody else on the Board questions for Jeff? Seeing none, I mean the delay is what the delay is. We need to make sure that we're getting through that in a way that gives us the best results at the end of the time period. Seeing no other concerns, let's move right along in the agenda. Thanks for that, Jeff.

PLAN DEVELOPMENT TEAM REPORT ON CONSERVATION MEASURES FOR LOBSTER FOR AREA 2 AND 3

CHAIR KELIHER: Now we're going to go to Agenda Item Number 5, which is a Plan Development Team Report on Conservation Measures for Lobster for Area 2 and 3, and we're going to go to Caitlin Starks.

MS. CAITLIN STARKS: I'm going to go over the report developed by the Lobster Plan Development Team, PDT, in response to a task from the Board. This topic is related to the 2023 NOAA Interim Rule to implement the measures from Addenda XXI and XXII. Those two addenda were approved in 2013, and included the aggregate ownership task in LCMAs 2 and 3, and maximum trap cap reductions in LCMA 3.

At that time those measures were intended to scale the southern New England fishery to the size of the stock, which has been found depleted in the previous stock assessment. But because a federal rule to implement those measures was not completed until 2023, there were ten years between the approval of the original addenda and the federal implementation.

Because of that gap, the Lobster Board as well as industry members have expressed concerns that there were some significant changes in the fishery during that ten-year time period. The Board thought these changes should be investigated further, so in January past the PDT was reviewing the conservation measures originally set in Addenda XXI and XXII, and making recommendations for alternate measures to achieve those reductions, inclusive of recommendations from the Lobster Conservation Management Team or LCMT.

The Board received a preliminary report from the PDT at the spring meeting, and today I'll go through the final PDT report. The PDT report has a lot of information in it, and I'm going to have to move fairly quickly through them. But the first part of the report contains analogies of the changes that have occurred in southern New England since 2013, and this includes changes in permit issued, trap allocations, maximum traps fished, latent traps, trips and landings, and the development of the Jonah crab fishery.

The PDT also considered the input provided by the Area 2 and 3 LCMTs, and provided some conclusions and possible management responses for Board consideration. The Board received a summary of the LCMT 2 meeting at its May meeting, but the LCMT 3 meeting took place in June, so to start us off, I am going to pass it over to Dan McKiernan to give a summary of that meeting.

REPORT FROM LOBSTER CONSERVATION MANAGEMENT TEAM 3

MR. DANIEL McKIERNAN: The LCMT 3 had not met in a number of years, and the reason for the delay from the possible Aoril timeline to the summer was we had to reconstitute the Area 3 LCMT, which we did, working with the other state directors who had vessels fishing within their state in Area 3. We had a meeting and four members and one alternate attended. As is mentioned, the purpose of the meeting is to provide guidance and insights to the PDT, as they were undergoing their work, which was very challenging, because the lobster fishery has not been well documented historically, because of the uneven requirements for catch reports, and also the fact that these statistical areas had to be so large it's hard to parse the effort and the landings to one stock unit or the other.

What the PDT heard from the participating members of the LCMT was, and as you just mentioned, take a strong look at the movement of these permits. We did see, and you've got to be showing this really, but just briefly to the forecasted, movement of the permits from the west to the east or from the south to the north.

The trend toward Jonah crab trapping that, even though you're seeing fishing effort it's not on lobster, it's on Jonah crabs. Also, the consolidation that has occurred in the 10 to 12 years since those other Addendums, XXI or XXII were instituted. The water was kind of passed under the bridge, in terms of achieving those goals, because of the consolidation. I think the results you are going to show reflect that which the members suggested the PDT examine, so I'll stop there.

MS. STARKS: Moving back to the PDT report, I'll start by going through the analyses the PDT put together, and I want to note here at the beginning that the PDTs state and federal data where possible, to give the most complete picture they could, available state and federal datasets did not always align, and some data were not available, and that is specified in the report in those cases.

The first thing the PDT looked at is changes in the number of permits issued by state for Areas 2 and 3 using publicly available federal permit data. This table is showing the permits issued by state for Area 2. You can see the total number of federal LCMA 2 permits has decreased substantially between 2014 and 2013 across all the states.

This next table shows the federal data for LCMA 3 federal permits issued to vessels that also has steadily decreased from 105 permits in 2014 to 76 in 2023, and most states have seen a decrease in the number of LCMA vessels, except New Hampshire. The PDT also looked at state level data for Massachusetts and Rhode Island, and this figure shows a declining trend in active permits landing in Massachusetts between 2010 and 2022 for both LCMAs 2 and 3.

Area 2 is the blue line and Area 3 is the orange line. Just a quick note, on some of these figures they did add that vertical dash line at the 2013 year, so we can focus on changes after that point. The same declining pattern is showing in the Rhode Island data, but declines in the number of active permits is more pronounced in LCMA 2 than LCMA 3.

Moving on to changes in trap allocations. The PDT looked at allocations for LMA 2 and 3 permit holders, and as a note, we only had data since 2015 for this time series, because of missing data from Rhode Island for 2012 through 2014. This figure shows that in Area 2 allocations were reduced by 25 percent in 2016, and then an additional 5 percent each year between 2017 and 2021. Overall, between 2015 and 2023 there was a 45.4 percent reduction in the combined state and federal LCMA 2 allocations. Then for federal Area 3 allocation data, they reflect the 5 percent per year reduction in allocations that occurred over the 2016 to 2020 time period. The data show a 20.2 percent reduction in the allocation from 2013 to 2023. The PDT did note that these annual totals do not account for any allocation that is held on a permit that was in certification of permit history or CPH for a given year. Next the PDT looked at the maximum number of traps reported fished each year between 2013 and 2022, using data reported to NOAA Fisheries, as well as Massachusetts and Rhode Island.

For LCMA 2, these data show a decline over the past 10 years with a 39 percent reduction in traps fished. Unlike the Area 3's trap allocation, the maximum traps fished in LCMA 3 have been pretty stable over the last 10 years, with only a 4.3 reduction from 2013 to 2022. Then to assess the number of latent traps in each area, the PDT compared allocated traps and maximum traps fished.

For Area 2 this comparison covers the years 2015 to 2022, based on the available data, and over that time period latent traps in Area 2 were reduced by 54 percent. In Area 3 there was a 64 percent reduction in latent traps from 2013 to 2022, with the lowest number occurring in 2020. Again, these do not include permits that are in certification of permit history, so those permits could have latent traps associated with them that are not accounted for here.

The PDT also wanted to investigate the idea that fishing effort in LMA 3, which spans both lobster stock, could have shifted from southern New England to the Gulf of Maine/Georges Bank stock. Looking at the number of trips in each stock area, which are shown by the columns. You can see that they were fairly evenly distributed earlier in the time series, but then overall numbers of trips in southern New England have declined, while the number of trips occurring in the Gulf of Maine/Georges Bank stock has been more stable.

Then looking at the Area 3 landings from each stock area, we see that they have been skewed towards the Gulf of Maine/Georges Bank stock area across the time series, but the percent of total landings from the southern New England stock has shifted from approximately 30 percent of the total to less than 10 percent.

A caveat with this analysis is that before April 1, 2024, federal lobster only permit holders were not required to submit vessel trip reports, so federal data on activity and landings here is not comprehensive. The PDT wanted to get an idea of how representative the data are of the LMA 3 fleet, so they looked at the percent of permit holders that did have a reporting requirement throughout the time series. They found that on average about 80 percent of the vessels had a federal reporting requirement across that time series.

Next, hearing that input from the LCMTs about the Jonah crab fishery playing a role in the changes in the lobster fishery, the PDT examined data on Jonah crab landings and fishing effort. There are several important caveats to this analysis. First, the mixed crustacean nature of this fishery makes it difficult to determine whether a fishing trip should be considered directed effort for Jonah crab or not.

Based on input from the LCMT 3 June meeting trip where Jonah crab landings were 80 percent or greater of the total landings of Jonah crab and lobster were classified as directed Jonah crab trips. Note that that method that is used to determine what direct versus indirect trips are would definitely impact the analysis. Then second, Jonah crab, the fishery is heavily influenced by the market, so that has been variable over the last several years, and this is something that was supported by the LCMTs comments. It makes it difficult to understand what is causing some of the trends we see in the Jonah crab fishery.

That said, the PDT analysis shows the majority of Jonah crab landings are caught in the southern New England lobster stock area, and it's been like that since 2013. The percent of Jonah crab landings that come from southern New England versus the Gulf of Maine/Georges Bank lobster stock haven't varied by much, but it does show a slightly decreasing trend since 2013.

The number of trap pot fishing trips landing any quantity of Jonah crab from the southern New England stock area, which is shown by the blue line at the bottom, increased from 2010 to around 2018, followed by a decline in the number of trips landing Jonah crab. The red line at the top shows the number of trap pot fishing trips landing any quantity of Jonah crab from the Gulf of Maine/Georges Bank lobster stock area. As you can see that has been a lot more variable.

Then here we're looking at the number of directed Jonah crab trips, which again was defined as trips where Jonah crab comprised 80 percent or more of the total combined landings. For southern New England directed trips were highest from 2014 to 2018, but have been decreasing since then.

Then the number of directed Jonah crab trips in the Gulf of Maine/Georges Bank stock area has been variable, but since 2013 we see an increase and then a decrease. The PDT noted that there isn't really a clear relationship between the decline in the southern New England area and the changes in effort in catch in the Gulf of Maine/Georges Bank stock area in the most recent years, but that could be due to those market factors that could also be driving Jonah crab effort.

The part of the PDT task to consider input from the LCMTs was accounted for, and as you have heard, some of these analyses took those LCMTs advice into consideration. Additionally, the PDT responded to the few things raised at the LCMT meetings. First that LCMT 2 members talked about how in the last few years federal lobster permits have frequently been sold as part of other transactions that have resulted in those permits leaving the Area 2 fishery altogether.

Based on the PDTs analyses they agree that this trend is reflected in the data. Then the LCMTs also talked about the control date that was in the NOAA interim rule, which was May 1, 2022. They recommended changing it to a future date or removing it, and the PDT commented on this, saying that if a future control date were put in place that might cause some speculation and an increase in

effort if harvesters were to attempt to purchase more traps in advance to bolster their allocation.

If the Board doesn't want to pursue ownership caps as part of this management strategy for Area 2 and 3, then a new control date would not be needed. Then at the Area 3 meeting it was stated that the southern New England fishery has scaled itself back since 2013, with reduced effort also shifting east and moving to the Jonah crab fishery, and they mentioned that logbook data would be able to show these shifts. The PDT didn't have access to logbook data for this analysis, but they agree it could be helpful to look at them, and specifically looking at the number of trap hauls by stock area over time. The PDT also agreed with the LCMTs that it does seem there has been a shift in effort in landings to the Gulf of Maine/Georges Bank portion of LMA 3. The PDT discussed some possible approaches that the Board could consider if it was just to reduce exploitation of the southern New England stock.

However, the PDT did not really have recommendations on measures that could directly reduce the size of the fishery, which was the intent of Addenda XXI and XXII. As the analyses show, it appears that the size of the southern New England fishery has already been reduced, despite the rules from Addendum XXI and XXII not being implemented federally.

The options the PDT discussed for reducing exploitation of the stock were seasonal and spatial closures, v-notching, output controls like trip limits or quotas, and reducing latent effort. The PDT noted that these measures have been discussed by the Board previously, and that there have been various concerns with them, and those are discussed in Addendum XVII. I'm not going to go into a lot of detail.

But regarding the closures, the PDT noted they could reduce landings during high exploitation periods, but the industry does rely heavily on those periods. Then spatial closures may help, but we can't predict this gear would just be then moved outside of the closure area. Then for v-notching, it's been discussed to protect reproductive females, but there have been concerns raised by the TC about further skewing a sex ratio of the southern New England stock, as well as disease and increased regulatory discards.

Trip limits and quota management in the lobster fisheries have historically been met with opposition because of the logistical difficulties in implementing and enforcing them. The PDT noted that trip limits could essentially nullify the current trap allocation system, and also that the number of trips could increase to make up for lost traps per trip.

Quotas for lobster fishery would obviously require drastic administrative changes and probably it would have to impact the Gulf of Maine/Georges Bank fishery as well. Then the last bullet here focuses on ways to further reduce latent effort to prevent it from becoming active in the future. However, it was noted that this would be unlikely to improve the stock from current conditions. With that I am happy to take any questions.

CHAIR KELIHER: Not seeing any questions for Caitlin. Next steps, I would look to Caitlin and Toni. Dave Borden.

MR. DAVID V. BORDEN: I have a comment, Mr. Chairman if that is all right at this time. The PDT I think did a fine job and should be commended for the report. There were a couple of aspects that I agree with. They commented on the need to look at trap hauls. I think that's kind of critical, given the changes in the fishery.

If the PDT has the data available, and I'm not saying that they do, but if they do, and they can look at trap hauls in the southern New England portion of the stock, they are going to show a much more pronounced decrease than has been reflected in the report. Because what is happening is people are increasing their setover time, so the trap hauls have gone down. The opposite is taking place on the Georges Bank portion of the stock where the trap hauls are increasing, and I'm just using my

knowledge from my prior position with AOLA, and I think that is something to look at. On the issue of the committees, the Area 3 Committee and Area 2 Committee. The Area 2 Committee I think has made a lot of progress at the two meetings that were held, in terms of kind of refining their positions.

I think possibly if they met one more time, they could submit a written report that kind of summarizes those findings. I've listened to both of those discussions; I would point out. Area 3 is kind of a different group. I think that the PDT work really have to kind of progress on this, if they're going to look at trap hauls, and then after that is done, maybe the Area 3 group should meet again and look at the results and see if they have recommendations.

CHAIR KELIHER: Dan McKiernan.

MR. McKIERNAN: Yes, I agree with David. Great job by the PDT. I would also like to point out, since this Board voted in 2013 on the measures a lot has changed in southern New England. Today the fishery faces offshore wind development and all the displacement that we expect to see among all the Mass/Rhode Island Wind Areas, and also a three-month closure of right whales south of the islands.

I think when we enacted these rules a decade ago it was between us, the fishermen and the lobsters, and now you've got all these other forces that are affecting the industry's ability to make a living. I think that needs to be factored in going forward. But I do agree with David. I think each of the LCMTs should be given an opportunity to look at the results.

To David's point, I think there was some interest on the part of the Area 2 folks to maybe have a cap of the number of permits, so we should give them a chance to come back. The thing about Area 2 is a lot of those vessels have state permits as well, and our states have an owner/operator rule, so it kind of keeps the number or the scale of fleets that would be created down to a low level. But I would support reconvening each of those two groups, for purposes of reviewing this report.

CHAIR KELIHER: Anybody else on this topic? It seems like we've got some additional work to do with the LCMT. Oops, Caitlin has her hand, go ahead.

MS. STARKS: I just want to ask a clarifying question from David on looking at the trap hauls. We are in the middle of the lobster stock assessment, and that is something we could do through that process. I want to get a sense of the urgency of that analysis, and if we need to do that now, or if doing it through the stock assessment process would be satisfactory.

MR. BORDEN: Do you want me to respond, Mr. Chairman?

CHAIR KELIHER: Yes, please.

MR. BORDEN: I think the Area 2 folks were so close to concluding their position they could probably meet now. I think the Area 3 people a longer road to get to a discussion. If I could suggest anything, I would say do the Area 2 meeting and then let some of the rest of this work develop, and then have the Area 3 folks meet.

CHAIR KELIHER: I think what Caitlin is looking for though is, when do you want that data? Is the data on the trap analysis? Is it all right coming out through the assessment process in October, or do you want that information ahead of time?

MR. BORDEN: October would be fine. If they were to meet between now and then that is fine.

CHAIR KELIHER: That is 2025.

MR. BORDEN: You mean the assessment.

CHAIR KELIHER: Yes, not this bird season, next bird season.

MR. BORDEN: Yes, it's next year. There may be some benefit in having them meet before then.

MS. TONI KERNS: Question to you, David. Will this trap analysis aid in the Board's decision on whether or not you would want to take further action or not, or is it just an informative piece of information? Just trying to manage the state staff's time, and the work that they are trying to get done in the assessment, noting that they had to delay the assessment.

MR. BORDEN: As far as Area 2, I think that might be a recommendation you just eventually put on the table, and at the appropriate time include it in a subsequent addendum. I don't think it's time-critical to do it. I said that a couple of times.

CHAIR KELIHER: What I was going to suggest is there seems to be consensus on the LCMTs to need to meet again. Have that meeting, review what the PDT has done to date. See if additional analysis is needed after that time, and what the timeframe should be, based on those conversations. Does that work? Excellent, okay. Good on your end? Anything else for Caitlin on these reports? Toni.

MS. KERNS: I just want to state that at this time we have asked NOAA Fisheries to withdraw on the measures in the Addendum and that is holding. We did ask for exceptions for the transfers of multi LCMA trap allocations, and we have asked those to continue to move forward. Until this Board takes up anything else, then that stands and the only thing that NOAA would be moving forward is that multi LCMA trap allocation when they can.

CHAIR KELIHER: Yes, I don't think anything more is needed, until we get through that process, right? Okay, everybody in agreement there? Great. Nothing else from you, Caitlin? All right, well let's move right along.

COLBY COLLEGE ECONOMIC ANALYSIS OF THE LOBSTER GAUGE INCREASE

CHAIR KELIHER: Item Number 6 is a report on the Colby College Economic Analysis of the Lobster Gauge Increase. If you recall through the Addendum XXVII process, and then at the last meeting they had a lot of comments on the economics of the issues that we're dealing with. Economic analysis is not something we normally do, but we did receive a letter based on some work that was done in Maine. We've asked Amanda Lindsay to look at that information, so I think we have her, we phone in a friend here, she's online. Amanda, if you can hear me, the floor is yours, Amanda.

MS. AMANDA LINDSAY: I think I don't have control over the screen, is that correct?

MS. STARKS: Yes, correct.

MS. LINDSAY: Okay, so I'll just say next when I need the next slide moved. Okay, so obviously I am not Michael Donahue from Colby College, I am a different economist. I didn't have anything to do with that analysis that he did in April, but it is related to my area of expertise, and so I was asked to provide a little bit of context and maybe answer questions about the analysis that he did.

Just because I'm new here, I just wanted to give you a little bit of my background. I have a degree in Agricultural Resource Economics, and in particular my research focus is bioeconomic modeling, and specifically looking at marine fisheries management policies. I feel like I'm pretty well versed in what I need to know to evaluate what he did.

I'm new to Maine, but I spent the past year learning a lot about the lobster fishery in Maine, and so everything I'm talking about is really just focused on the perspective of that management Area 1 and Maine lobster fisheries. I'm going to run through some highlights for the policy analysis performed by Professor Donahue, but I also want to take a few moments to comment on analysis done by the Technical Committee, so I can help kind of contextualize the results.

I just have a few thoughts that I want to leave you with today. I'm sure we all know, but I just want to make it very clear that what we're looking at in particular is what would the economic impacts be

of increasing the minimum carapace gauge length for Maine lobsters. To my understanding this would be done over two stages.

The reason why it's such a big deal is DMR data suggests that a very large proportion of Maine's recent harvest would fall in this soon to be illegal range. Yes, so the big question is, how is this going to affect Maine lobster fishery? Why didn't Michael Donahue provide this analysis? In 2016 he was involved with a bigger project, it's called The Dollars to Lobster Project.

There are several, publicly available presentations, and documents that I looked over after I was asked to kind of review his letter that he wrote. That research really focused on the contribution of Maine dealers and buyers to the Maine economy. Both at previous analysis and this more recent one, he used this in-plan modeling software. If you've never heard of this before, it's an extremely common and standard modeling software used for economic analysis.

It's a type of general equilibrium modeling, and the software comes equipped with the best and updated federal and state datasets that are needed to kind of parametrize the model. However, there are features of the software that allow users to enter additional information as needed. In his previous 2016 work, Michael Donahue, with a team of researchers, collected a bunch of data from dealers in Maine, and then used that to populate his model. That was kind of a different model, to my understanding of his letter, and this one that he performed in April was really focusing on the harvesters and upstream enterprises. We can talk a little bit more about that if you're interested. This is kind of a freak food cartoon; economists typically don't use diagrams like this. But this is kind of like the way that I explain how this modeling process works, to kind of my non economist colleagues.

When you're doing this modeling software, you have to define the boundaries or the scope of your model. In this case, we would have had a model of the Maine economy. Because we're interested in this fishery policy, we have to explicitly make sure we have identified the number of harvesters, maybe the amount of capital that they are operating with, the relevant upstream enterprises, which are the input suppliers, and downstream enterprises as well.

But of course, Maine is more than just a lobster fishery, so the model also kind of represents all other economic sectors and household and government. These green and blue arrows, I use to represent the flow of goods and services and money. A researcher will go into this software program and create a model that is in what we call equilibrium. It's kind of a system at rest.

Then the researcher will introduce a policy shock. That policy shock is used to kind of mimic or represent what the direct impact of a policy would be. In the second image, I have indicated that these two arrows leaving the harvesters are now red, and they are smaller, to represent his assumption that Addendum XXVII would lead to a 10 percent reduction in landings value.

He introduces that shock to the system, and he lets a new equilibrium be found. You have this before picture of the economy, and you have an after picture of the economy. Comparing this before and after is how an economist would estimate the economic impact. In his report he identifies direct, indirect, and total economic impact, and so that led him to his conclusion that this would have approximately a 60-million-dollar impact on the Maine economy.

The letter was brief, I believe it was two pages. It was very clearly a quick analysis. I think he did a really excellent job identifying all of the caveats to his study, and I just wanted to point a couple of them out, which I think are really salient. Given how this modeling process works, the assumption that the Addendum XXVII would reduce landing values by 10 percent is an assumption.

He does not know if that number is the correct number. It could be greater, it could be smaller, but it is the assumption that he makes. Contingent on that being approximately true, then you can rely on those following results and what that would translate to in total effect. A few features about the model, it's a very theoretical model.

It uses the best available data, but of course it could be more precisely updated to reflect current market conditions. He made a note in his memo that he focuses on harvesters and upstream, and not the downstream enterprises, because he doesn't believe the 2016 data that he collected previously reflect current market conditions. The modeling framework that he uses doesn't explicitly model the fish stock or the behavior of the fishermen. The fishermen could be changing their location or intensity or soak times, or what have you, in response to the policy, which his framework isn't set up to kind of model. He also does not include the Canadian harvesters, which is important, because they are drawing from, at least in part, some of the same stock. They compete in the same market, and are subject to different regulations. That could have big implications to the market conditions the Maine lobster fishery is going to face after Addendum XXVII is implemented. The final point, he doesn't really mention this, but I believe it's important to emphasize, that his methodology is what I would call a static model.

It's using snapshots of the economy, in order to make the assessment. We don't know how long it would take for the stock for the economy to recover, because the model isn't designed to answer those types of questions. I think it's important, since I just had all these like really critical comments about his analysis, to put it in context of something that was provided for me in the draft document for the Board discussion, particularly related to Appendix B, which was an analysis provided by the Technical Committee.

I read through that as well, to kind of help me understand how it compares to the work that Professor Donahue did. I thought they were both very interesting. They seem like very rigorous, I mean standard procedures were followed, et cetera. In their report for the Management Area 1, the researchers predicted a decline in the number of individuals, but an increase in the harvested weight after the Addendum XXVII goes into effect.

I think it's really important to point out that that does not clearly tell us what the effect of landings value would be. It also doesn't explicitly model fishing behavior in the way that economists would, so it has that similar weakness. It's by design it doesn't model these economic linkages that are relevant.

What I thought was really interesting about the methods is that it is similar to Professor Donahue's work in that it is a static kind of equilibrium comparison of the stock, and we're not looking at the path of dynamic recovery. When I was asked to kind of look over these analyses and explain the discrepancy, I think the big takeaway I had was that they actually are very similar, even though one is looking at the economy and one is really looking at the stock.

I don't think that these two reports are mutually exclusive. I think it's very possible that both of the findings could be true at the same time. No one really asked, but because there is this kind of question is, what were the assumption of Professor Donahue, were they reasonable? I think they are very reasonable assumptions that he made.

I would think that this Addendum would have a big economic impact, at least in the short run. But what is probably the most important policy question is what would happen in the medium to long run? To answer that question, you need to know about the recovery of the fishery and the recovery of the economy. This kind of question, it's how big the gains are and when they occur. It could have a really big impact.

If the biomass and the harvest increase, as the Technical Committee predicts that they will. It could be the case that we would have net economic gains. However, if those gains are smaller, or they just take a long time to accrue, it could actually be a net economic loss. I wanted to throw out there that I did a little bit of a literature review when I was asked about these reports. There are a few things I think are really important and interesting to think about. There was this work done by two U Maine professors in the eighties. They were looking at the expected benefits and costs of a similar type of policy, a little bit different in terms of the gauge change. That had a biological element as well as an economic analysis.

I thought it was really interesting when I read it, the biological estimates, in terms of how it affects harvest. It seemed very similar to what was done more recently in 2021. The economics did not look so rosy, so they predicted that there would be gains eventually to harvest, but they would accrue too slowly, so it would be economically undesirable.

I wouldn't put too much stock in that analysis though, because the methods don't meet today's best practice standards. I wouldn't trust those numbers. I only was able to find this one other article looking at how changing minimum size affects harvest, but it was in a recreational fishing context. I'm sure there is more out there, particularly because this question seems very similar to policy changes in the stable fishery in Alaska.

But I didn't have the references to kind of look over and help maybe contextualize what is going on here. But I think the most important thing, and both documents I looked at brought this up. There is this question, a lot of unanswered questions about the market of lobsters, particularly what is this relationship between size and price.

It is well established by researchers that the size/price relationship is really important when you're thinking about management, so what the economic outcomes are. Most academic research focused on this positive relationship. When big fish get higher prices per unit or per weight, and how that kind of plays into the policy of protecting large breeding females.

But it sounds like in my experience over the past year and in these documents, there is this idea that for Maine lobsters there might actually be a negative size/price relationships of smaller chick lobsters are getting a better price or more desirable. I think that is really interesting, because it could have really big impacts to what are the economic outcomes of management policy.

I think there is like a lot of really important questions that we don't have the answer to, which is limiting our ability to predict what the true economic cost of this policy will be. That's it, that is all I have prepared, but I am happy to answer additional questions. Of course you can ask me now, but if anyone wants to reach out to me, my contact information is there.

CHAIR KELIHER: Great, thank you, Amanda. That was a lot to take in there. Your diagram for the non-economists in the room was probably appreciated, because I think everybody is a non-economist in the room. With that I would like to see if there are any questions from the Board for Amanda. Steve Train.

MR. STEPHEN TRAIN: On that last slide where you referred to Acheson and Reidman's predictions in the eighties, about a measure increase. Did you see what the data was from the eighties to the nineties after the last measure increase, to follow that up?

MS. LINDSAY: Oh, interesting. I have not, so I only stumbled across that article in the past like two weeks. I would say, I am not familiar with the formatting of that type of paper, so it really obscured a lot of their data and their methods, which is why I said I am a little skeptical of it. But that is a really interesting question.

I'm definitely going to check it out, to see if what they predicted manifested. I think the main

problem is that their ex-ante analysis, they were just looking at an increase up to, what was it, like the 88.9 or something, and I don't think that they would have told us what would have been that marginal benefit from just going from '81 to'83.

CHAIR KELIHER: Follow up, Steve.

MR. TRAIN: Follow up. We didn't make that full increase back then; we only went up a little. But the stock was running just slightly ahead of its 20-million-pound, hundred-year average. In the eighties we started approaching 30 and 40 million pounds, in the nineties, 60 million pounds by 2000, and over a hundred million pounds a few years ago.

MS. LINDSAY: Yes.

MR. TRAIN: I don't understand a prediction of an economic loss on a measure increase, when the last time we did it the data showed the other way.

MS. LINDSAY: It gets down to this question about the price, and how the price affects that measure of value, right. They also found, like in the Acheson, they were the eighties. They predicted that the volume in weight would increase, but the number of individual lobsters caught would decrease. Net-Net-Net, they predicted like harvest revenues would increase for Maine lobstermen after this policy took place.

The problem is that they predicted losses for five years, and then only on the sixth year would the benefits come. When you do the final cost benefit analysis, those initial years of losses were not made up for by the gains in their final year of their study. When I'm suggesting there is this question about whether or not this would be good or bad for lobstermen, it's kind of under this idea that when you enforce this increase of size, that at least temporarily the harvest is going to go down. They may go up five, ten years from now, but that might not be sufficient to make up for the losses accrued in the short run, or it could compensate for it. Like your example saying how we've just seen these steady increases over the past couple decades in our harvest. That is possible. My concern though is, without kind of knowing how long it's going to take and what that recovery looks like, it's hard to know what the economic impact will be.

CHAIR KELIHER: Thank you, Dan McKiernan.

MR. McKIERNAN: I'm a little confused with some of the final conclusions that were made about there being a negative relationship between the size of lobsters and value, because every lobster market I've gone into, the least expensive lobster per pound is the chicken size lobster, chicken are pound and a quarter. When you get up above a pound and a quarter, it is always an extra dollar at least per pound. I'm skeptical that that relationship is a negative one.

MS. LINDSAY: I don't know have any evidence to suggest it's one way or the other. I'm simply saying that in various papers and in some of these reports that I looked over, there was this suggestion that there was this relationship. I don't think that we know conclusively one way or another.

I have heard concerns of people in the lobster fishery that I've talked to over the past year, that because dealers have consolidated that dealers are buying large volumes of lobster, and if they can't get the size they want from one group of harvesters, they may shift a lot more of their buying to another region.

I think, do I have any evidence if it's true? No, I don't. I'm just saying that if this is true, if there are different features of the market, it could have bad consequences to this policy. There are a lot of kind of ways that this policy could get kind of distorted, when we think about what the economic benefits could be. Does that make sense?

MR. McKIERNAN: Yes, thank you.

CHAIR KELIHER: I think if there is one thing we've learned, well and kind of watch what is going on with lobster over the last few decades is how dynamic this market is. It's very hard to understand all of these relationships, I think in the end. But this has been very informative. Are there any additional questions for Lindsay? Not seeing anything.

From a Board perspective, is there anything more the Board would like to have looked at? Is there any information that we would like to pull from the TC, for instance, around these relationships? They've already looked at the data along the potential loss of harvest, what would be made up in yield that year. We know those are estimates. Is there anything more we need there? Is there any refining of that data that we would like to see? Steve Train.

MR. TRAIN: I would love to see the Technical Committee talk with economists and use some previous data, like the last time we went up on the measure, to see what the economic impact was the next year, three years, four years. Go that far back if they have to. But just to see beyond what we're seeing for spawning stock biomass and weight, just to see what the possible economic outcomes are after change, with history, not just raw data.

CHAIR KELIHER: I was commenting to Caitlin earlier. I'm not sure, and the economist and the TC would have to tell us. But I'm wondering if this is an apple-to-apple comparison, right, because the resource was in such a different state then versus what we're seeing now. It may be something we could ask the TC to think about when they come together again, to think about, is there a relationship there that should be looked at from the last gauge change to this one, and make that comparison.

MS. LINDSAY: May I make a quick comment?

CHAIR KELIHER: Sure, Lindsay, go ahead.

MS. LINDSAY: I would just say, I think that is the idea of looking at kind of historical evidence of how that increase affected harvest would be really great. I think it would also be interesting, it looks like in the methods described by the Technical Committee, I'm not sure if it's possible, but it seems like they might be able to summarize kind of the path of recovery, the methods.

The report that they provide say that they compare, they have the models run for 50 years to reach equilibrium, and then they do their analysis. I don't know if it would be perfect, but it would be interesting to see how long the population takes before it reads that new kind of level. It's not a perfectly dynamic analysis, but it could give us a sense of how long it would take to achieve some of those outcomes.

CHAIR KELIHER: I'm going to go to staff, Toni.

MS. TONI KERNS: I just want to note that the datasets that we have from the eighties versus the datasets that we have now are quite different. I don't even know if we have a complete view of what landings data looked like in the eighties. I just caution the Board on the information that you're going to get back.

It may be helpful if we talk to our TC Chair on the side and see what kind of work this will involve. Again, I'm still trying to keep that TC on track for the assessment, and what this will inform the Board of, in terms of its decision making. What action are we informing for?

CHIAR KELIHER: I think that is a really good idea, Toni. We've got some time here, depending on what happens with a later conversation today. There is a timeframe that we have to work within. There is potentially a second gauge change that this could be also very informative for as well. If there are no objections from the Board, why don't we have Toni talk to the TC Chair, Caitlin talk to the TC Chair, figure out what that workload would be, and then bring that back to the Board at the October meeting. Aloha, Mr. Reid.

MR. ERIC REID: Yes, Aloha to you. In Ms. Lindsay's effort, she said she did not take into account fishermen's behavior, which I'm assuming means at some point if you're losing money, you may exit the fishery. That is not accounted for. But Mr. Train is pointing out a study that was done some time ago.

Is there any way to capture how many people fell out of the fishery due to a gauge change and the negative impact? Of course, fishermen don't usually go too often to work at Walmart, but there was a cost to drop out of the fishery and perhaps enter another fishery, which are these things that produce maybe negative income in the short term for sure. But I'm just interested to know how do you look at the data in the effort, looking at data.

MS. LINDSAY: I think the questions you asked are definitely answerable by economists, not by the style of modeling that Professor Donahue has performed. His analysis is like a macroeconomic methodology that kind of summarize aggregate behavior, so like everybody in the fishery, not particular fishermen. The type of modeling that I do bioeconomic modeling, where you explicitly model economic decision makers, so fishermen, and you explicitly model the fish stock. With those types of tools, which are kind of classified as microeconomic analysis, you are able to kind of look at entry and exit into a fishery. Change in effort could also be fishermen buying larger boats and trying to fish further from shore, or like moving their effort around spatially.

I think the point Michel Donahue refers to that kind of limitation of his model just to say that in defense of his assumption that it will decrease landings 10 percent. Effort changing in behavior can affect what that impact is. Again, it could be the case that 10 percent number is incorrect, and it is also, I think as you say, it's a really important point.

It doesn't necessarily, I mean it does matter in the aggregate what happens, but it also matters what is happening to individual fishermen. Is everyone just making a little less money or are some fishermen forced out of the fishery completely? It's something to think about. Unfortunately, the current analyses that are out there cannot comment to that.

CHAIR KELIHER: Great, thanks Lindsay. I'm going to take one more question, we've got to move on. Dennis.

MR. DENNIS ABBOTT: I will have a question, but I think we have to keep in mind why we're where we are. There is a reason why we proposed a gauge increase. I think there was an understanding that there would be an initial loss of revenue. A lot of what we did started in the state of Maine.

I don't disagree with anything that Ms. Lindsay, Professor Lindsay stated in her report. I think it's beyond a perception of what is going on, as Representative Golden wrote us in his letter. A question I would have, and I would direct it at Steve Train, a long-time lobsterman with generations of experience in his past. Are you willing to take gauge increase for the long-term liability of your industry?

CHAIR KELIHER: You're asking one member of a 5,000-member fishery, Dennis, so with all due respect, and understanding exactly where Steve is, in relationship to the coast of Maine and how this is impacting him, versus Mid-coast and Downeast. I think it's a very different answer, depending on who you're talking with.

Your point though, Dennis, is well taken that we are trying to be proactive in the face of changes that we are seeing in our juvenile assessment. I think that is certainly why we're here. I would also just remind the Board that we are being proactive for the first time in how we act and how we work as a management board, and because of that it does have challenges that relate to the economic health of our fishery.

I think what I would like to do now is move on with the agenda. But suggest to that the issues that just came up that were raised by Eric Reid, along with

the others, becomes a conversation between staff and the TC Chair. We also know that we have a lot of data from sea sampling back into the sixties that potentially could come up. Maybe what needs to happen at some point is a conversation between Lindsay and the TC, because I think having that dialogue at that level would help answer some of these questions, like these technical questions that are coming up, I think could become part of a dialogue between the two entities. Then if that happens, they can bring that information back. Again, time is on our side here from a management perspective, depending on what happens later in this meeting.

But we will have the ability to have this information coming in as we're trying to make determinations of the next steps with the management approach for lobster. Is that all right? Okay, seeing that. Lindsay, I want to thank you again for your time here today. It was very informative, and we appreciate the input that you've given the Board.

REVIEW DISCUSSIONS WITH CANADA ON COMPLEMENTARY MANAGEMENT MEASURES

CHAIR KELIHER: With that I would like to move on to Item Number 7, which is Review the Discussions with Canada on Complementary Management Measures. I'm going to ask Toni Kerns to give this report, just for the reminder to the Board. There have been a lot of conversations between the U.S. and Canada based on Addendum XXVII impacts to both countries, the flow of lobster.

I had some very good conversations leading up to this meeting, where the idea of having some managers, as well as industry reps from zone councils and the LFAs in Canada, come together, talk about what these things mean, and so Toni will give an overview of the meeting. Before she does, I just want to point out that the document that was in the supplemental materials was one that was submitted to Maine DMR. That information did not have all of the U.S. reports that were given. Those were compiled, DFO Canada has not responded to that, so that is very much a draft document that is potentially going to change. Not a whole lot in it, if you had a chance to read it, that really is earth shattering. It's all stuff that we've certainly discussed in the past. I just want to make sure that was clear and on the record. With that, Toni, I'll turn it over to you.

MS. KERNS: For those folks around the table that were at the meeting, if you have anything to add when I'm done, please do so. As Pat said, we had some state staff and some U.S. lobster industry fishermen go up to Canada and meet with DFO staff and DFO fishermen from the maritime regions.

Those maritime regions include the lobster fishing areas that start at the tip of Cape Breton in Nova Scotia, and they go to the Bay of Fundy and the U.S. Canada Border in New Brunswick. We presented an overview of what is going on in United States, in terms of the changes in the size limit in the Gulf of Maine.

We provided information on what the status of our stock is doing, and then Canada provided an overview to us on the status of the maritime region's lobster fishing areas. We found that their lobster fishing areas are all in a healthy condition. Uniquely, they both have stock assessments and management areas for each LFA.

They will either use a catch-per-unit effort to look at the status of the stock, or they will have what they call a weight of evidence, which uses fishery independent surveys to give a status of their stock. They are all in healthy conditions, but they are starting to see some similar trends in declines that we are seeing in the Gulf of Maine. For Canada, in order to make changes in their management measures, they have harvest control rules with pre-agreed upon decisions for actions to be taken if a stock falls below a healthy condition. Otherwise, any change in management has to come from the bottom up, so starting with the LFA, industry making those decisions. In the case since all of their areas are in healthy condition any changes that

would be made now would need to start with those industry members.

We provided the rationale of why we're making this change in the size limit for Area 1, and there were some of the LFA industry members that were open to an idea of a change in the size limit, because they are also seeing some changes. There are others that are a little bit more hesitant to want to make that change.

I think that is partially due to the fact that Canada approaches their management slightly differently than the United States does, in that they do have size limits, but they also have some seasons, and some areas have pretty restricted seasons in place. That difference is meaningful to those fishermen.

We also talked about what happens in imports in the United States if the size limit comes into play, and whether current practices for product that is just moving through the country, so bonded products, meaning it is either being trucked or flown through the United States, bound to another country, and whether that product would be subject to these new size limits or not.

I did speak with custom agents from NOAA, and currently bonded product is not subject to the U.S. size restrictions, and that would continue to happen if we do make a change in the size limit, that bonded product could still move through country and not be subject to the changes in the size limit. That bonded product needs to stay sealed; it cannot be manipulated in any way.

As soon as it is transferred or manipulated, then it is no longer considered bonded product. I think at the end of the day, I think there is some interest in Canada to allow their industry to go home and talk to their LFAs, to continue discussions on whether or not they would be interested in either matching our size limit, or coming closer to that size limit.

But they need some more time to think about it. They definitely would not be able to make a change in the regulation prior to January 1, when our size limit comes into place. Some of the things that came out in the discussion is, would you be able to delay, not delay that size limit increase or not? We sort of left it on the table that we would come back to this Board and have some discussions on what we may or may not be able to do. Is there anything else that Dan, Cheri, or Pat would want to add to that summary?

CHAIR KELIHER: I think you really covered it. Dan, do you have anything you want to add?

MR. McKIERNAN: No. Toni, that is a great description, and it was an eye opener for me to hear the Canadian system, when overfishing or overfished status isn't in play it's a bottoms-up. Really, I credit Pat for convening this meeting, but it was really an opportunity for us as managers to kind of get those fishermen together, the Maine Zone council members and the Canadian LFA industry reps, Lobster Fishing Areas. There was a lot of good exchange. I sense there was some interest among the Canadian fishing representatives to consider this. But as you said, they couldn't possibly do it by the first of January, the would be convening a group called MARLAC, which Pat, you can help me with what that is. But it's an annual meeting of the tribes of the fishing industry and DFO to talk about future management options. If Canada were to follow suit with us, it would probably be sometime in 2025.

CHAIR KELIHER: Cheri, did you want to come to the public microphone? We're going to forego the rule of three here for the table. Yes, step away from the table, Renee, no, I'm just kidding. Go ahead, Cheri.

MS. CHERI PATTERSON: Dan and Toni really did cover it well. However, there was one thing I wanted to mention is that when asked how long it could take them to pull together regulations, we were informed that June 1st would be the timeframe that if they were interested in doing this, that they could pull these regulations together.

CHAIR KELIHER: I think the conversations with Canada, I think certainly have been affected properly, and I think they were very positive. I think what Canada was feeling on the LFA side was the fact that this was being forced on them by the U.S. There was certainly those type of concerns expressed around the table from the LFA Reps that wanted to be able to have these conversations in a way that was going to be more informative in a time that allows them to be able to have really meaningful conversations with the harvesters.

We had a lot of complaints from our Canadian LFA Reps that were there to say, our fishermen are fishing right now, that is why they are not at the table, which I pointed out that every fisherman from the U.S. that were there gave up fishing to be there. I think frankly a lot of it is culture, how things take place, how the meetings happen when their fisheries are happening.

They have very few, it seems to me, very few of those kinds of back and forth between harvesters and DFO. I do want to make sure it is clear for the table that we're talking about the LFAs in Canada that touch the Gulf of Maine. The Gulf of St. Lawrence, those LFAs around Newfoundland, Magdalen Islands in particular.

Those fisheries are going gang busters, like the Gulf of Maine fishery here was going back in the early 2000s up until 2016, where we set harvest records. We're not expecting to see any change from about the St. Lawrence Region, we're talking about the LFAs possibly around Southwest Nova Scotia and the Inner Bay of Fundy making those type of considerations.

We're expecting that those will be meaningful conversations that are likely happening since that meeting, through until the MARLAC, which I can't remember what the acronym is either, and I'm not going to phone Toni. Toni is going to look in her notes. But that meeting will happen in September.

We will certainly be more informed after that. Any questions from the Board regarding these conversations with Canada? I would say from my standpoint, the idea of having if we can see changes both in the U.S. and Canada from a gauge perspective on both sides of the border, certainly that will be a much bigger conservation benefit for the Gulf of Maine. Dan.

MR. McKIERNAN: Yes, one other positive outcome of the meeting was I think there was a consensus that the U.S., our Technical Committee should have a regular check in with the Canadian folks who are basically assessing the same stock on the other side of the line. I look forward to that in the future.

CHAIR KELIHER: Yes, I think what we saw, as Toni reported, very different management approaches using very similar, well not even similar datasets, right? We're assessing juvenile side of the stock, where they are using CPUEs and looking at landings, so very different approaches, but trying to achieve the same outcome. I think having that science exchange is going to be really important. Jim Gilmore. Nice to see you, Jim.

MR. JAMES J. GILMORE: Just years back when I know New York's fishery pretty much collapsed, whatever. But there was this issue sort of a similar thing, where all the lobsters were coming from Maine, and there was an issue about exactly what Toni had gone into, they had to be sealed. But there was really not much of an issue for us, because we didn't have a fishery, so we didn't have to do a lot of oversight out of that.

But you in the north, now you are going to have more of Canadian lobsters coming in. Is that going to be an increased work load for you, because now you could have different gauges, different markets, so now you are going to have to watch that a lot more closely than we had to. Just curious if you thought about that.

CHAIR KELIHER: We thought a lot about it. I think that is what we'll really one of the conversations around Addendum XXX that we have coming up on the agenda, and how we would deal with that. The

conversation around bonded produce, just so it's clear for non-border states. Bonded product coming through the United States is really driven by the fact that the country of origin, in this case being Canada, doesn't want to pay tariff and taxes at every country that it stops in to its final destination, so it's bonded and sealed.

Toni talked about having the conversation with NOAA Law Enforcement Agent that deals with that stuff. We do border inspections with NOAA OLE, and Homeland Security; Maine Marine Patrol does. We're not looking at any shipment or any truck coming into the state or through the state of Maine or through the United States that is a sealed bonded truck.

That is all done in the country of origin. It is all done based on the regulations of where that shipment is going. The only shipments that we look at are ones that we know are going to come into the United States, to make sure that they are consistent with our regulations here. Dan.

MR. McKIERNAN: Pat, I'm not sure you've been clear enough. The bonded product is heading out of country, typically through the airport.
CHAIR KELIHER: Yes, I'm sorry, bonded product is leaving Canada, going to a U.S. airport, and then flying overseas. Yes, anything else on this item? Dan.

MR. McKIERNAN: Well, we have two orders of business today that is coming up. One is Addendum XXX and the other is, I would like to start a discussion on doing what we just discussed was a topic of conversation in Canada, which is a potential delay in the implementation of XXVII. Which would you rather take first? The delay, okay. I have a motion that I have shared with staff, and consistent with the mood and the theme and the details of our conversations, I am interested in a small delay to the middle of the year in 2025, to implement the biological measures of Addendum XXVII.

When I say the biological measures, what I mean is the gauge increase, as well as the standardization rules that are going to affect Outer Cape Cod. But I'm not including the trap tag issues that Cheri and I both have to implement for 2025, which is no longer giving out 10 percent. That is kind of mentioned in the body of the motion.

By delaying this until July 1st, it certainly sends a signal to Canada that we want to minimize the impact on their fishery in the year 2025, because most of those fisheries finish by June 30th. Pat, that was one of the reasons the Canadians were complaining because they only had two days left of fishing, because it was the last few days of June, and they just wanted to get their final days in, because then they pull their gear out for the rest of the year.

This would delay for six months, and as far as the Massachusetts fishery goes, our fishery is closed in our state waters in Area 1 until the right whales leave, which is typically the first week of May, and the shed really kick in until the end of June. I'm interested in delaying this until July 1st, and I would be interested in hearing any other discussion, especially from my New Hampshire neighbor, since this Area 1 fishery is shared by the three states of Maine, Mass and New Hampshire.

CHAIR KELIHER: Dan, if you would, would you read the motion, then I'll ask for a second.

MR. McKIERNAN: **Move to initiate an addendum to delay the biological measures implementation date of Addendum XXVII until July 1, 2025. Specifically, biological measures under Section 3.1 that created common size limits for state-only and federal permit holders fishing in Outer Cape Code would be implemented effective July 1, 2025. Similarly, management measures triggered under Section 3.2 would be implemented by July 1, 2025 starting with the Year 1 measures, and subsequent management measures (additional minimum size increase in Area 1 in year 3. Vent size increase in Area 1 in year 4; maximum size reduction in Area 3 and Outer Cape Cod) would be implemented by July 1 of the calendar year for which they are**

required. Trap tag issuance regulations regarding the routine issuance of 10% additional trap tags in Areas 3 and 1 above the trap limit or allocation would remain unchanged. It would mean leaving the trap tag issuance intact and then creating a new addendum, which would alter the effective date of the biological measures.

CHAIR KELIHER: Great, thank you, Dan, do we have a second? Steve Train seconds. Discussion on the motion. Renee.

MS. ZOBEL: Dan, may I ask you a question about why July 1? In the meeting with Canada, we heard that they said they could move potentially move forward regulations by June 1. June 1 also happens to coincide with one of the dates of lobster management, not the permit year but the trap tag issuance year. Just curious on why not stick with kind of known management date instead of going to July 1.

MR. McKIERNAN: Renee, it is my impression that many of the Canadian fisheries remain open until June 30. This would hold harmless, not the dealers, per say, but it would hold harmless the harvesters until that date, until the end of their season. Otherwise, you're asking them to make s significant change toward the tail end of their season.

As far as our May 1 fishing year. We have a start date of fishing year and trap tag gear, and one is May 1, one is June 1. That doesn't make any sense to me, so what is the difference having a third stock date. I'm easy on that, but that was the rationale, to try to get to the end of the Canadian harvest seasons that at least we know about. I am not an expert in all of the Canadian seasons, but I believe June 30 is a common closure date. Pat, am I right?

CHAIR KELIHER: Yes, I think based on the conversations with Canada we heard from most of the majority of the LFAs their seasons were just ending, and we met at the end of June. Any additional questions? Steve Train.

MR. TRAIN: Not a question, just the reason I seconded that, and I might have surprised some people, because I know I've been advocating this. We have definitely seen issues with the fishery, is the dealer is really messed up with this too, the processors especially, and they need more time to figure out what they are going to do as we wait for the Canadians to come onboard if they are going to. This will give them one more season of Canadian product in the spring where they don't have to worry about it. Then if Canda doesn't come onboard, at least I've got another year to make a plan. I'm hoping Canada comes aboard.

CHAIR KELIHER: Any other questions from the Board? I know there is a lot of people here who came a long way from the public. Is there any member of the public who would like to make a comment on this motion? Kristan Porter. I'm going to keep you guys to just a couple minutes, if you would, please. We won't time you, but Caitlin has got a big hook if you run too long.

MR. KRISTAN PORTER: Thank you, Mr. Chairman. My name is Kristan Porter, I am President of the Maine Lobsterman's Association. I fish out of Cutler, Maine. I just want to support this motion made by Commissioner McKiernan. I guess a couple more things I want to add. I too was at the meeting in Canada.

The meeting went very well. I think there is some support for this from some of the fishermen in Canada, but I think there is also going to be some pushback. I think there is also, we need to know what may happen if we all can do this together. There are also some issues if they decide they don't. One of those issues is where I fish in the gray zone. They need to figure out how that is going to work, you know with two people fishing the same area on a different measure.

The July 1 delay would definitely help us for next year, because they move in there. Their season ends on June 30. At least next spring we would have the same measure for at least that amount of time, until we can get this straightened out. The other issue, I just want to say to that is kind of coastwide

is July 1 works better, because you're just about to the molt. Springtime typically is a harder go, and you're fishing on stuff that is closer to the measure. Economic impact to fishermen would be better for July 1.

Because you have the new molt coming rather than making a hard rub of it in the spring. Those are just the points I want to make that didn't get stated here. But I do think that July 1 is a better fit for everybody. I know there are some processing/dealer issues that probably others will talk about, but thank you.

CHAIR KELIHER: Thanks, Kristan, anybody else in the public? Drew. Billable hours, Drew, so I'm going to leave you to a minute.

MR. DREW MINKIEWICZ: I work on a flat rate, so don't worry about it. Drew Minkiewicz for the North American Lobster Alliance. The North American Lobster Alliance is the dealer and processors from Maine to Massachusetts. We support this motion. For the dealers, July 1 is an important date, because of the Canadian fishery.

The processors only process around eight months of the year. April, May, and June, almost 100 percent of the lobsters that they process come from Canada, because there is not enough supply in the United States from the fishery to supply them. It's a necessity. If they don't process those months, they are not a profitable company.

They will go out of business. They need those months to get the product ready going into the summer season, where people buy more lobsters. This is crucial to allow for them to adjust and to see if the Canadians come along. Leaving aside whether or not Addendum XXX is correct, and whether or not 3 and 1/4 is the standard to go for, that is another discussion. But the intent is to at least at the state level, prohibit possession of anything under 3 and 1/4. This is critical for the processors.

We hope that you will pass this and that we can continue to work collaboratively in addressing how to conserve the species, and also conserve the dealers and processers in this process. I will note that at the Canadian meeting the dealers and processors were not invited to the meeting. We do wish to be at the table to be part of this process.

There is a lot of discussion about bonded product coming through the United States. To be very clear, that helps Canadian dealers, that is of no assistance to U.S. based dealers and processors, because once you possess the United States it is no longer bonded, that exemption goes away. I find it interesting that out of the Canadian meeting there were concerns about the Canadian dealers and what would happen from this.

But there were not any proposals or prospects addressing the issues facing U.S. based dealers and processors. We want to be at the table to be part of the solution, as we look to make sure this fishery continues to be viable going to the future, and also the business model of my clients remains viable. Thank you.

CHAIR KELIHER: Thank you, Drew, anybody else from the public? Ginny Olsen and then Dustin Delano. Can you hit the button, Ginny? There you go.

MS. VIRGINIA OLSEN: I just wanted to say that this delay would give us some time to actually evaluate the number of Maine fishermen that are still fishing and have not left the fishery, now that we have mandatory reporting and latency. I think it's important to see how that impacts the conservation in Maine.

I also wanted to follow up on that bonded comment. I agree 100 percent. The unintended consequences of these sort of things are, if we don't have the size that the market is looking for, meaning the restaurants and wholesalers out there, then they are going to go to another source and if they have that size, be it in Canada, then they can easily say, you know to get these ten crates of lobsters you need to take these ten crates more,

and that takes another sale away from Maine. Thank you.

CHAIR KELIHER: Thanks, Ginny, I appreciate it. I think that question about harvesters leaving the fishery is something we do need to be keeping our eye on. I'll look at Jeff, I mean I would think, is that from an assessment standpoint that effort side of the assessment. Are we looking at anything like that? Maine had 250 harvesters leave the fishery this year. We're going to see more going in the future Then we're not talking just latent licenses. It's something we probably need to look at from all of the states from Gulf of Maine perspective going forward. Dustin Delano.

MR. DUSTIN DELANO: Thank you, Chair, my name is Dustin Delano from the New England Fishermen Stewardship Association. I'm also one of those people that left the fishery, unfortunately, but I just want to also give my support for the July 1 delay, and to express my appreciation to the three Commissioners that went to Canada and initiated these conversations.

You already received comments from us in your supplemental about why the July 1 date is crucial, but there are many benefits that have already been laid out here from harvesters, and from the dealer perspective as well. The hurdles of possession would be a problem with a June 1 implementation, and cause for a lot of these dealers to have to shift the way they do things in the middle of a very busy time. We appreciate your consideration, and hope that you will move forward with the motion.

CHAIR KELIHER: Great, thanks, Dustin. Dan McKiernan, before I call the question.

MR. McKIERNAN: No, I have one other question I would like to propose before we take a vote. That would be, what can the timing be of enacting the rules, and I guess this is a question for the three states that have Area 1 fisheries, and maybe Rhode Island. I would like to see it enacted sooner than later, so that the gauge manufacturers really do produce the gauges, and this isn't perceived as a perpetual kicking of the can. If you would allow me, Pat, to some just re-consensus about what our limitations are on rulemaking. What is the fastest we could get rules on our collective books, Pat?

CHAIR KELIHER: From Maine's perspective, it takes us about 100 days to do regular rulemaking. I have not thought about it from our regulatory workload that we have right now. But we go through both in the fall we'll be doing our scallop and urchin regs, so it would come after that cycle. We would probably start the process, probably after the first of the year, for implementation in the spring. Late winter, early spring for Maine.

MR. McKIERNAN: Is it possible for you to do it by the winter meeting, or is that too soon?

CHAIR KELIHER: To have it implemented by the winter meeting? We would not. Not with the current regulatory workload that we've got in place right now.

MR. McKIERNAN: Okay.

CHAIR KELIHER: Yes, definitely by the spring meeting though.

EXECUTIVE DIRECTOR ROBERT E. BEAL: Thank you, Chair. If this motion passes, the Board is going to need to talk about a timeline for developing and approving the Addendum and public comment. Is it draft at the annual meeting, final approval at the winter meeting, or is there something faster that this Board has in mind? I think that is probably a conversation for after. We don't need to know or have that conversation until we get an addendum.

CHAIR KELIHER: That's a good placeholder for that, thank you, Bob. Renee.

MS. ZOBEL: I can just speak to our process. If it's through an ASMFC Fishery Management Plan Action, we can move very quickly. We could have it

on the books fairly quickly, and have the public process.

CHAIR KELIHER: Alli Murphy.
MS. ALLISON MURPHY: Sorry to delay the vote here with a quick comment. I think I made similar comments last fall when a potential delay was discussed previously. I am going to speak against this motion. I think we talked earlier in this discussion about how these measures were intended to be proactive, and every time we delay these measures, we limit their benefit. We continue to urge the Board to be as aggressive and proactive as possible in setting Addendum XXVII resiliency measures.

CHAIR KELIHER: Great, thank you, Alli. Last call for comments on the motion. Do we need a minute to caucus? You don't need a minute to caucus. I know we have one objection. Are there any other parties who object to this motion or nulls? If not, Toni, how do you want to handle that?

MS. KERNS: You can just ask if there are no objections, and if there are none then carry forward.

CHAIR KELIHER: Well, we have one objection. Do you need a caucus? Listen, we've been up since 3:00 a.m. Don't confuse me now. **All those in favor of the motion on the Board please raise your hand. Nine, hands down please. All those opposed, one. Any null votes? No null votes. Motion passes 9-1.** Okay, thank you. I'm going to turn back to Dan McKiernan.

MR. McKIERNAN: Can I ask about the timing of what staff perceive?

MS. KERNS: I think the Board has two options here. This is a pretty simple document. All it is doing is saying we are going to delay the Addendum. We'll write up a statemen of the problem, sort of a summary of a little bit of the conversations that we've been having with Canada, and why we are delaying the document, and then it will have one option in the document.

Staff can write that document up and e-mail it out to this Board, and this Board can e-mail approve the document. We can have it out for 30 days, whether or not we need to do public hearings in-person or not would potentially make a difference on whether or not we could bring then public comment back for final action in October.

That is an extremely fast version of us doing something, and we would need your cooperation, in terms of moving things along and getting information from you all very quickly. The other thing that we can do is wait to approve the document in October, and then do a special meeting of the Board in probably mid-December. That will be still fast, but the other version is so that we can get this done prior to January 1.

CHAIR KELIHER: Thank you, Toni, Dan.

MR. McKIERNAN: Pat, I would seek your guidance. Do you think if we fast track this and got it approved at the fall meeting that would send the signal to Canada that they could proceed? Would that be a preferred time?

CHAIR KELIHER: Yes, I think so. I think I agree with that assessment, Dan. I think it gives a good signal to Canada that we're doing this in good faith, for them to carry out some additional conversations with the LFAs, understanding that their timeframe is coming in September, but we would be voting on it at the fall meeting.

I say that, I look back to staff to make sure. I like the concept of a very simple document here. I think we've just heard from members of the industry who are supportive of this approach. I would recommend that we just have one coastwide webinar for a hearing, just to simplify this. I don't know if there are any objections from the other states, but the simpler the better here. Then we would compile that information and bring it to the Board in October. Bob.

EXECUTIVE DIRECTOR BEAL: Just one additional comment to what Toni said. If this Board is a little bit uneasy about approving an Addendum via e-mail vote, we could do a quick webinar of the Board and they could go over it, make any comments on edits and that sort of thing. If that part is hanging anybody up, we could do a webinar.

CHAIR KELIHER: Is that something we could determine on the fly, Bob, yes? Does that sound good to the Board? Okay, so with that in mind we will take the faster track from a timeframe, simplified document, e-mail to the Board. The Board would determine at that time whether we can do with a simple e-mail vote and dispense with that, and then we would schedule a single webinar, coastwide webinar, to garner public comments on the document with final review, and vote at the annual meeting in October. Seeing all nods around the table, great, thank you very much. Dan, do you have anything else on this? Nothing.

CONSIDER ADDENDUM XXX ON THE MITCHELL PROVISION FOR FINAL APPROVAL

CHAIR KELIHER: I'm going to wait for my computer to wake up. Moving right along, we're going to go to Item Number 8, which is Consider Addendum XXX on the Mitchell Provision for Final Approval. This is a final action on this document, so I am going to give the floor over to Caitlin for an update, reviewing the options and the public comment summary.

MS. STARKS: This is consideration of Lobster Draft Addendum XXX, which is on this foreign import minimum size recommendation that would come from the Commission. Just a quick reminder on the timeline of the development of this document. The Board initiated the Addendum back in January of 2024, then approved it for public comment in March. I'm going to keep going while she pulls that up. The document was approved for public comment in March, and then the public comment period and hearings were held from March until early June. At this meeting, the Board is reviewing the public comments and considering the Addendum for final approval.
Then if this Addendum is approved, the Commission's recommendations would be forwarded to NOAA Fisheries. As a reminder, the Board initiated Draft Addendum XXX to address how gauge size changes like those triggered by Addendum XXVII would affect foreign imports of live American lobsters.

As we've discussed, last fall the trigger index established in Addendum XXVII declined by over 35 percent from the reference period, which triggered the implementation of a series of management measures, to protect the Gulf of Maine/Georges Bank spawning stock biomass. The first of those measures is the gauge increase in LMA 1, and then to allow more time to communicate with Canada about those management measures between the two countries, the implementation date was delayed to January 1, 2025.

I'll skip the tables, since it is not showing. But the issue of imported lobster is related to the Mitchell Provision of the Magnuson-Stevens Act, which prohibits the import and sale of lobsters smaller than the minimum possession size in effect under the Commission's FMP. The Mitchell Provision was intended to prevent smaller lobster than what the U.S. industry could catch from coming into the U.S. market. Given that the 2025 and 2027 changes in minimum size for LMA 1 would also change the minimum size for lobster entering the U.S. under the Mitchel provision.

The purpose of Draft Addendum XXX is just to clarify the Commission's intention regarding the LMA, which would be (muffled microphone) and then 3 and 3/8 inches in 2027. This is consistent with the intention of the Mitchell Provision to limit live lobster imports into the U.S. to be no smaller than what the U.S. industry can legally land.

PUBLIC COMMENT SUMMARY

MS. STARKS: Can you go to the public comment summary? I'm going to go through the public comment summary. As I mentioned, our public comment period for Addendum XXX was in March to early June, and during that time we held two virtual public hearings. The combined public attendance at those two hearings was 35 individuals, although some of those folks attended both hearings. At the hearings five public comments were provided. Then a total of 117 written comments were received as well, including 13 letters from organizations and the remainder from individual stakeholders. The table on the bottom is giving an overview of the support or opposition to the proposed action in Addendum XXX.

As you can see, a significant number of comments did not address the Addendum directly, and those are counted in a separate "other" category. Of the comments in support for Addendum XXX, the reasons given were one, that allowing imports to be smaller than the new gauge size would increase the negative economic impacts to harvesters, and two, that if imports are not handled as recommended in Addendum XXX, then U.S. lobstermen would be put at a huge disadvantage and would lose money and be put out of business.

The comments that opposed Addendum XXX generally focused on these three issues. First, the negative impacts to the processors that would result from restricting imports to the U.S. minimum size in effect. Some examples were that it would disincentivize processors from operating in the U.S. that the Canadian chick lobsters are what keep those U.S. processors going before the U.S. lobster season can supply them, and they estimated a 20-million-pound reduction in Canadian lobster imports, and a loss of 128 million dollars to the domestic industry.

Comments also mentioned concerns about supply chain disruption, and noted that Canadian dealers don't have sufficient workforce and facilities to physically grade large volumes of lobster by gauge size. Some general comments were submitted by Canada. These raised the question of how this action considers mutual obligations under trade agreements between the U.S. and Canada, as well as questions related to the necessity of the action.
How achievement of the objectives will be measured, what alternatives have been considered, and the relevance of this action for lobsters traveling in-bond, which we have discussed. The other comments submitted were largely about the LCMA 1 gauge increase that was triggered by Addendum XXVII, and asked for that measure to be canceled or postponed.

CONSIDER FINAL APPROVAL OF ADDENDUM XXX

MS. STARKS: Some of those comments also mention that trap limits should be considered instead, larger lobsters should be protected rather than smaller ones, and that the U.S. and Canada should have the same minimum gauge size. With that, we have the final approval of Addendum XXX up for Board consideration today, and I am happy to take any questions.

CHAIR KELIHER: Any questions for Caitlin? Seeing no questions for Caitlin, what is the pleasure of the Board? Doug Grout.

MR. DOUGLAS E. GROUT: I would like to make a **motion to approve Draft Addendum XXX.**

CHAIR KELIHER: Okay, we have a motion by Doug Grout, seconded by Dan McKiernan. Doug or Dan would you like to give any additional rationale?

MR. GROUT: Not anything additional, other than I think it's important and that I think it's something that in the original document is what we intended, the original Amendment XXVII.

CHAIR KELIHER: Go ahead, Caitlin.

MS. STARKS: I just wanted to clarify, if your intent was to have it be effective today, and if so, can you read it into the record again, because we added a word.

MR. GROUT: Be glad to. **Move to approve Draft Addendum XXX, effective today.**

CHAIR KELIHER: Dan McKiernan.

MR. McKIERNAN: Yes, the only comment I would like to make is based on the conversation we had earlier as a Board about the so-called bonded product. It's my understanding bonded product, as you mentioned is coming into the country but heading out of the country going to a foreign country overseas, capitalizing on Logan Airport primarily, I guess, that wouldn't be affected by this. As was mentioned by Toni, it's for product that comes in that is intended to be comingled and opened, et cetera.

CHAIR KELIHER: Eric Reid.

MR. REID: There is a lot of rules with bonded product. You can't just take a bonded truck and drive up to Southwest Airlines and unload it. You have to go through a bonded warehouse, you know an agent to this bond, that there are a lot of rules. The amount of safeguards, I guess is what I should say. I'm not worried about that in any way, shape or form.

CHAIR KELIHER: Steve Train.

MR. TRAIN: Judging by the last vote we made that is going to actually change our sizes in July of '25, is there a rush to implement this today, or could we put the same effective date on it? The reason I ask is because we made changes in the last six months, and I don't know if we want to have to change a lot of things all at once.

CHAIR KELIHER: Thanks Steve, Toni.

MS. KERNS: Steve, it doesn't make the change for the size limit to be effective today, it's just showing our intention of, if and when size limits change that it is our intention that the Mitchell Provision pertains to those changes in size limit. It is just stating our intention of what that size limit change means.

I think it is good that people understand what our intention is, and so making that known to everybody provides clarity for individuals when they're trying to understand how these rules may or may not apply to them in the future. That would be the rationale of why you would have it effective today.

MR. TRAIN: Thank you.

CHAIR KELIHER: Additional comments or questions from the Board? Not seeing any; I would like to quickly go to the public, because I know we've got people here that have traveled to speak on this issue. The first on the list is Bob Blais from East Coast Seafood.

MR. BOB BLAIS: Thank you. Yes, I'm Bob Blaid, East Coast Seafood. We have been in the lobster business since our inception in 1981. We own a Canadian lobster company, we're a Maine dealer or Mass dealer. We're a Massachusetts lobster processor. We cover all the bases here. The restrictions that we're imposing here with Amendment XXX is going to reduce number of lobsters coming through New England dealers and New England processors. It is going to inhibit our ability to stay in the processing business in the United States.

We're only processing for eight months as it is. We rely on Canadian lobsters when there are no domestic lobsters available. Those months are April, May and June or May and June primarily, and then at the end of the year from the amount of time is November into December. By reducing, by limiting us on what we can bring into the country limits what we can process, and may not be beneficial to process at all, to keep all that processing plan and equipment around without any activities on that end of it.

CHAIR KELIHER: Thank you, Bob. Bob, I am going to have to keep people to one minute, because we've already got public comment on this. I'm going to let you just wrap it up, if you would, please.

MR. BLAIS: Okay. I don't understand how we're protecting the Canadian fishery in with the bonded plan of being able to bring product through the country and not go through dealers. It should be allowed to bring any size lobsters into the country. I don't agree with the Mitchell bill, and since then we've had NAPTHA and USMCA and I believe those three practice it now really makes the possibility that the Mitchell bill conflicts with the current USMCA.

CHAIR KELIHER: Okay, thank you, Bob, thank you for your comment. Anybody else on this topic? Drew. Again, Drew, we're keeping everybody to one minute on this one.

MR. MINKIEWICZ: Got you, Drew Minkiewicz with the North American Lobster Alliance again. I just want to say, in the summary of the comments it was not noted that we commented that 3 and 1/4 inches is still the minimum size in effect in the lobster management plan, so under the Mitchell Provision it is still 3 and 1/4 inches, just with that plan.

This is an unnecessary action. Also, just looking at the comments for, I would disagree with the factual accuracy of the comments supporting Addendum XXX, and I would also note that there is no conservation benefit to what you're doing here. This is not helping the lobster fishery or the conservation of lobster in any way, shape, or form. Thank you.

CHAIR KELIHER: Thank you, Drew. I'm going to turn to Toni, you've got a quick comment?

MS. KERNS: Just to clarify for the record. The coastwide minimum size is a floor in which no LCMA may go below, it is not a size limit that any LCMA would have in effect at the time the measures change. In the Mitchell Provision it says, "in effect in the Commission's plan," and the size limits are done via each LCMA, so the coastwide floor doesn't apply to the Mitchell Provision.

CHAIR KELIHER: Back to the Board. Any additional comments? Seeing none; do we have any opposition to this motion? **This is final action, we have to have a vote, is it a roll call vote, Toni?**

MS. KERNS: We can have states raise their hand and I can just call out.

CHAIR KELIHER: You; will read the names, okay, great. All those in favor of the motion that is on the board, please raise your hand.

MS. KERNS: Rhode Island, Massachusetts, Connecticut, New York, New Jersey, Virginia, Maryland, Delaware, Maine, New Hampshire.

CHAIR KELIHER: Great, and any null votes?

MS. KERNS: No.

CHIAR KELIHER: Nulls, abstentions.

MS. KERNS: NOAA Fisheries.

CHAIR KELIHER: **Great, motion passes 9, 0, 0, 1, you had 10? Motion passes**. Okay, that concludes the conversations and final action around Addendum XXX.

VESSEL TRACKING WORKING GROUP REPORT

CHAIR KELIHER: We're going to move right along to Item Number 9, which is a Vessel Tracking Working Group Report. Caitlin is going to give an update on the Work Group, and then considering the time I'm going to have a couple comments about maybe the next steps here with this approach.

MS. STARKS: The Board tasked that the Vessel Tracking Work Group was responding to was to task the Addendum XXX Vessel Tracking Implementation Group with input from the LEC. This was in response to industry raising concerns about privacy, related

to the Addendum XXIX requirement for the tracking devices to be on at all times.

The Board task specified that the Work Group should investigate modifications to the 24/7 vessel tracking requirement, which still ensure monitoring of fishing activity while acknowledging that fishermen also use their boats for non-fishing reasons or other personal reasons. The task included getting input from the LEC, and reviewing the existing processes for when VMS devices can be turned off.

I'll start off with the VMS processes. The important takeaways that the Work Group found are summarized here on this slide. The first thing to note is that the VMS regulations for Atlantic fisheries required VMS devices to be on and collecting data 24 hours a day unless they are authorized to power down. Exemptions are only given to allow a device to power down in specific circumstances, and those are when the vessel will be out of the water for over 72 hours. When a vessel signs out of the VMS program for more than 30 consecutive days, and does not move from its mooring until that VMS device is turned back on. Then if the vessel is issued a Limited Access General Category Scallop permit, is not in possession of scallops, is tied to its permanent mooring, and has notified NMFS of the power down. The regulations also require a letter of authorization from NMFS to be issued to the vessel owner, and that must be applied for via written request and provide information to NMFS, including the vessel location.

The Work Group also noted the following additional information related to VMS. First it clarified that VMS user can declare out of the fishery, but that does not mean the VMS device stopped collecting tracking data. Additionally, VMS devices are capable of geofencing, and it is currently used in some cases to change the ping rate when a vessel enters or leaves specific areas.

But geofencing is not ever used to automatically turn off a VMS device in certain areas. Then lastly, the fastest ping rate for VMS devices is one ping every five minutes, and the national VMS regulations currently do not allow for a faster ping rate. Moving on to the Work Group suggestions for possible modifications in response to their task. There were two main strategies the Work Group discussed. The first is the use of geofencing, which involves defining an area or boundary that when crossed it would trigger an automatic change to the device ping rate. The second strategy would be what the Work Group call a snooze function, and this would be a process for setting a device to not collect spatial data for a pre-determined period of time.

With the geofencing strategy, the Board would need to define the areas where the ping rate would be different than the one per minute rate that is in Addendum XXIX. It would also need to define what that different ping rate would be, for example one per day, or something else. A big issue with this strategy is that the currently approved devices are not all capable of geofencing.

This wasn't something that was required in Addendum XXIX, or when our request for proposals was released. Specifically, the Viatrax devices, which make up the majority of devices in the non-Maine fleet cannot use geofencing right now. Another concern with this is that in order to use geofencing, you need cell phone service to register when a vessel crosses cell service, not cell phone service, to register when that vessel crosses its defined boundary and adjust the ping rate at that time.

But cell service is not available everywhere these vessels would be going, and so that would mean the devices would need to be satellite rather than cellular, to use this approach, and that would be a high cost with that one-minute ping rate. The other approach of implementing a snooze function would require establishing a process, where a web form would be submitted to request a temporary snooze of a particular device during a period of non-fishing activity that is specified.

Then if that request is approved, the device would stop collecting data for a period of time defined previously in the form, and after that period of time it would automatically wake back up and resume data collection. Of the currently approved devices, Viatrax and Particle are capable of doing something like this, but it would increase the cost to have this function, because of the development fees and increased subscription fees. Additionally, this type of process would require states and/or the vendors to process and approve snooze requests and disable the devices. One plus side that was discussed about this strategy is that it would create a record of every time a device is snoozed, and that could help mitigate abuse of the function by bad practice.

Both of these approaches come with some concerns about data loss, but geofencing more so than snoozing. With geofencing we would lose data on fishing effort in the areas where the ping rate would be slowed down. For example, if this approach were implemented and a boundary was set for the devices to start pinging at the one-minute ping rate, once they crossed the three-mile line, for example.

Then data for fishing activity inside the three-mile line would be lost. As discussed in Addendum XXIX, the ping rate of one per minute was selected because that is the rate that allows us to be able to identify fishing effort, whereas slower ping rates than that are incapable of doing that.

But because a significant number of slots or trips do occur in state waters, this would be a big loss of data. Additionally, it might create some challenges for trips in both state and federal waters if we only had a track for part of the trip. With the snooze function, if it's used correctly, so only when a vessel is not fishing, and there shouldn't be too much data loss, but there is a chance of fishing activity not being captured while a device is snoozed. As requested, the Working Group got input from the LEC, Law Enforcement Committee on these ideas.

One thing the LEC noted was that tracking has helped to reduce the misuse of trap tags. Not having tracking in state waters would create a loophole there. With regard to geofencing, the LEC was concerned that it would be easier to cheat inside the defined boundary, and that because they are able to get quicker access to spatial data where cell service is available, which is more of the inshore area, it could potentially slow down investigations of already suspected vessels.

In general, the LEC commented that the vessel operators should not be allowed or able to turn devices on or off themselves, and if that were the case it would be extremely difficult to enforce the requirements, because law enforcement wouldn't really be able to determine whether a device was purposely turned off or if it failed, and lastly there was a discussion about defining what are fishing versus non-fishing trips.

The LEC and the Work Group both agreed that with either of these strategies it would be really critical to implement clear rules around non-fishing trips, such as prohibiting any bait, gear or lobster being onboard during those non-fishing trips. The Work Group had a few additional things for the Board to consider as well.

One is that since tracking was implemented the states have seen improvement in trip reporting, with fewer errors in those reports. Second, they noted that if the Board pursues this further it could make it so permit holders could have a choice about whether to get a new device or upgrade to a device that is capable of one of these strategies, but not require everybody to get a new device if they don't want to. Then lastly, they noted that some of the currently approved companies would have to make some significant investments to modify their devices to be able to use satellite service. Because the devices have already been purchased, there might not be a huge financial incentive to pursue those modifications, and that could potentially limit the availability of devices that would be able to

accomplish these strategies. That's all I have, so I'm happy to take any questions.

CHAIR KELIHER: Any questions for Caitlin? Steve Train.

MR. TRAIN: Thank you, Caitlin. Geofencing thing looks a little more complicated, but the snooze option. Say somebody like me that lives on an island and I'm not fishing on Sunday. You have to call in Sunday morning and say, I don't want my tracker, I want it to be snoozed on Sundays, because we're going boating? Can I do that once a year and say Sundays I'm not fishing, or is that every time you go?

MS. STARKS: The way the Work Group discussed it, it would be a one-time request every time you want to snooze the device. It would be web form, it wouldn't be like calling in and saying, I want my device to be snoozed.

MR. TRAIN: You have to call and tell them you want this snoozed? It still is, for something that is used like an SUV for about half the fishermen in the state of Maine. It's like a plumber's van or electrician's van. You use it for everything, not just when you're working. It seems onerous.

MS. STARKS: Those are the two things the Work Group came up with that would be viable things that our devices could do.

CHAIR KELIHER: Any other questions? I'm going to phone a friend, Kurt Blanchard, could you come to the table? Kurt, to my question that I keep rumbling around here in my head is just kind of prima facia evidence, as far as being on and off, or literally being on or off the boat, the tracker being on or off the boat. Is that something that could simplify an enforcement approach here, if it's not on the boat or if it's not on, it's prima facia evidence of a violation?

MR. KURT BLANCHARD: I'm not clear what you're asking. Are you asking if the device is on the boat or the device is turned on while on the boat?

CHAIR KELIHER: It could be either.

MR. BLANCHARD: Currently the way it's worded now, that would be prima facia evidence for violation.

CHAIR KELIHER: Thinking about Steve's example, where on a Sunday, non-fishing day in the state of Maine, he is using his boat to go into town to get groceries or whatever, he just removes it. I mean we would obviously have to have language change within the plan. We would have to have regulatory language associated with it. But I think what I'm concerned about is if we were going to go in this direction, having something so onerous from a regulatory standpoint for an agency, to have to have somebody that takes that call every time the boat isn't going to be used for fishing. I'm looking for something simpler from an enforcement standpoint. If somebody is going to be on their boat, and they are seen in the act of fishing, and that tracker is either not turned on or not on, depending on the approach that was taken. That would be prima facia evidence of a violation.

MR. BLANCHARD: That goes to defining what the fishing activity would be, or what you would consider the activity to be when it would have to be on, and that's great. From a law enforcement perspective, as long as we can clearly define when the activity takes place and when that should be on, we could support that.

Again, also the reality of it is, and we had this discussion on the Working Group is, the tracking by law enforcement of fishermen moving around harbors and using the boat for personal use. The reality of that happening is pretty minor. I can't see where or how that would be beneficial to be supporting the cause of why we have this for this industry or for the fishing activity.

CHAIR KELIHER: Thank you, Kurt. I didn't mean to put you on the spot, but what you're getting at is, kind of with the idea of, if you define fishing, what

that fishing activity is. We do that with menhaden with Power Block and Net, and those things have to be on board a vessel if you're going to be in possession of fish.

You've got bait, you've got gear, you're in the process of hauling gear, right, how would you define that? Just trying to think of a simpler approach than having to make a phone call. I won't put you on the spot any more, but I just wanted to get your input on that on the record. I think from a Board perspective we've got a Working Group that has done a lot of work here, that's given us some very valuable advice on geofencing and potentially other approaches.

What I would recommend is that we kind of absorb this information and add this to the next Board meeting in the fall at the annual meeting, for kind of further discussion and refinement. Maybe the Law Enforcement Committee could talk about the defining of the fishery, so it would be a potential, simple approach if the Board wanted to go in that direction. Dan McKiernan.

MR. McKIERNAN: Pat if you also could define the burden. It's not clear to me who the fisherman is calling. Is the fisherman calling the company that sold them the device, or is it calling someone at DMR or a third party? That is not clear to me, based on this discussion. If more could come later on that it would be helpful.

CHAIR KELIHER: That is valid, Dan. I always look at as, it's our regulation so we would have to give that authority, to be able to move away from that regulation for a period of time. Bob Beal.

EXECUTIVE DIRECTOR BEAL: I thought we were going to give them Caitlin's cell phone number, but apparently not. Still follow the phone calls. One of the issues that is tricky here is there are four or five manufacturers, and they all have different capabilities. Some of the devices don't even have a physical on/off switch, and if you remove them from the hardwired power on the vessel, they've got a battery backup, so they keep recording things. I think these are unique issues with each different device they've got. We kind of have to work through one by one. But probably to your point, Work Group did a lot of good work, let's think about it a little bit, and if there are additional questions and some of these unique features of the different devices, we have to kind of work through some of these questions as well. You're on.

CHAIR KELIHER: This is a complicated issue. We have a standing case in front of a federal judge in Maine. We don't know the direction that that judge is going to go. This could be something that is going to have to be, depending on the action of that judge, decision of that judge, could change the trajectory and the speed on which we have to act, or it may be the opposite.

We may be found completely compliant. But at the end of the day, I think we passed a motion to look at these issues. We've got good information on the table. I think there is some defining that could potentially be done that helps us get around the fact that we've got four or five devices that we have to deal with.

I think the other question becomes, as we have implemented our rule in Maine, we have had staff call fishermen to say, hey, your device isn't on. If you look at that device, it's not that they were being malicious, it's just that a fuse has blown, something happened, and it's on battery and it's pinging every six hours.

All you get is a spot on a chart every six hours. How much of an invasion of privacy is that? I mean those are the kind of things that I start to think about as I start thinking about how we would deal with this and how we want to look at it going forward. If there is no objection, what I would like to do is, let's take this information, think about it a little bit, and then add it to the next agenda, the agenda in the fall. Toni hopefully won't disagree with that.

MS. KERNS: No, I don't disagree. When you are thinking about it, let's try to keep in mind how we can stay accountable and not create loopholes within the fishery, because we talked about that with the Work Group as well as Enforcement, and that is really important. If we do create loopholes that could be actually more administrative burden on your staff than not, than these call-ins, potentially, who knows. I think it depends on how many people actually want to utilize this newest function.

But the other part is, is that I hope we keep an open mind, in the sense that, is it possible that we could just allow for a device that meets these needs, that still lets these individuals who are fine with having the 24/7 tracker continue on. Because as Caitlin said, some of these devices, we're not even sure have the capability of getting to this point at all. We have many thousands of dollars invested in this already, and for those individuals that are fine with these devices, why would we make them change, spend more dollars on new devices, when they are okay with what they have.

CHAIR KELIHER: Thanks for that, Toni, I think those are really good points. Renee Zobel.

MS. ZOBEL: Toni essentially just took the words out of my mouth. A lot of money is spent on these devices that were approved devices by the Addendum. They were the intent of the Addendum to be low-cost cellular devices to get the job. I just would caution moving forward in a way that doesn't allow that big investment, in some cases by the federal government, an application to this industry to be able to meet that mandate.

CHAIR KELIHER: Thanks, Renee, I appreciate that comment. Does anybody want a last word on this issue? Caitlin, we are going to give your phone number out.

MS. STARKS: Staff would just like to clarify if there is any work that we need to do on our end between now and October, or are the Board members just going to think about this and come back in October and have a discussion?

CHAIR KELIHER: Unless the Bord has some additional tasking for staff, my intent was that we just think about it, with the exception of maybe Law Enforcement thinking about potential definitions of fishing, if we were going to have kind of that prima facia approach to whether it's on or off. But other than that, I didn't have any additional tasking. If we're all set on that.

ADJOURNMENT

CHAIR KELIHER: Moving right on, is there any other business to be brought before this Board, because I am the only thing standing in the way of dinner, or as we say in Maine, "suppah." Seeing none, motion to adjourn, I hear it all around. Thank you very much.

(Whereupon the meeting adjourned at 5:07 p.m. on Tuesday, August 6, 2024)

Atlantic States Marine Fisheries Commission

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MEMORANDUM

TO: **American Lobster Management Board**

FROM: **American Lobster Technical Committee**

DATE: **October 7, 2024**

SUBJECT: **2024 American Lobster Data Update**

Data Update

An annual Data Update process between American lobster stock assessments was recommended during the 2020 stock assessment to more closely monitor changes in stock abundance. The objective of this process is to present information—including any potentially concerning trends—that could support additional research or consideration of changes to management. Data sets updated during this process are generally those that indicate exploitable lobster stock abundance conditions expected in subsequent years and include:

- Young-of-year (YOY) settlement indicators
- Trawl survey indicators, including recruit abundance (71-80 mm carapace length lobsters) and survey encounter rate
- Ventless trap survey (VTS) sex-specific abundance indices (53 mm+ carapace length lobsters)

This is the fourth Data Update and provides an update of last year's review with the addition of 2023 data. Indicator status (negative, neutral, or positive – see table below) was determined relative to the percentiles of the stock assessment time series (i.e., data set start year through 2018).

Indicator	< 25th percentile	Between 25th and 75th percentile	> 75th percentile
YOY settlement (larval or YOY)	Negative	Neutral	Positive
Trawl survey recruit abundance	Negative	Neutral	Positive
Trawl survey encounter rate	Negative	Neutral	Positive
Ventless trap survey abundance	Negative	Neutral	Positive

An updated status based on the mean value over the most recent five years (2019-2023) is provided for each time series, for comparison to the five-year means provided during the stock assessment (2014-2018). This treatment of data is consistent with model-free indicators provided during stock assessments (see Section 5 in the 2020 stock assessment report for more detail). VTS abundance indices have been added to the indicators used in the stock assessment for this Data Update process. Note that updated five-year means (2019-2023) for several trawl survey-based indicators remain impacted by COVID-19 survey disruptions and a new (unrelated to COVID-19) survey disruption to the NEFSC trawl survey in Spring 2023. Additionally, the NEFSC Fall time series has not been updated with 2023 data. The TC and SAS are reviewing potential changes to handling of the NEFSC survey data as part of the ongoing benchmark assessment, including how the Albatross / Bigelow vessel calibration is handled, implementation of gap-filling procedures for missed strata, and removal of one stratum from the

Georges Bank survey index because it is no longer sampled. Thus, these changes need to be evaluated through peer review of the assessment before further updates of indicators are provided. In the interest of time and anticipated impacts from the changes described, the TC decided not to calculate Fall 2023 indices using the old calibrations and data methods. Indices affected by this issue will be identified with an asterisk (*). Please see the appendix for details on other data changes. Below are the results of the data updates by sub-stock.

Gulf of Maine (GOM)

Overall, Gulf of Maine indicators for recruits and adults continue to show declines from time series highs observed during the stock assessment, while YOY indicators show some improvement.

- YOY conditions showed improvements since the stock assessment (Table 1 and Figure 1).
    - Updated status for five-year means were all neutral, indicating improvement since the stock assessment when two of five means were negative (both southwest areas).
    - All ME indices have shown consistent increasing trends since a recent low in 2021. 2023 values for two indices improved from negative or neutral to positive status while the other three indices remained neutral.
    - It's important to note that changes in YOY indicators are not expected to be detected in the recruit indicators for several years.
- Trawl survey recruit abundance indicators showed signs of decline since the stock assessment (Table 2 and Figure 2).
    - Three of the updated five-year means changed status from positive to neutral since the stock assessment. The other three remained positive, though two (NEFSC) did not include additional data since 2022* when they were also positive. All three indicators that have declined to neutral status since the assessment are for inshore GOM waters.
    - 2023 values for all inshore GOM surveys were neutral status, a decline for one additional indicator from positive to neutral since 2022.
    - Five of six indicator values were not available for 2020 due to COVID-19 sampling restrictions.
- Trawl survey encounter rates show declines inshore since the stock assessment (Table 3 and Figure 3).
    - All four of the updated five-year means for inshore indicators were neutral, whereas only one was neutral during the stock assessment. Five-year means for the two offshore indicators remain positive, though they do not include additional data since 2022* when they were also positive.
    - Note that the ME/NH survey encounter rates (spring and fall) are still high relative to other surveys.
    - Five of six indicator values were not available for 2020 due to COVID-19 sampling restrictions.
- Ventless trap survey indices show abundance declining since the stock assessment (Table 4 and Figure 4).
    - Status determinations for four of eight updated five-year means were negative and four were neutral, compared to four positive means and no negative means during the stock assessment.

- The indicator for Area 513 has been more stable over recent years than the indicators for the other three areas.
- While the status of most 2023 indicators remained the same (neutral or negative), the values were similar or improved over the 2022 values in all areas except 511 (both sexes) which continued to decline and changed from neutral to negative status between 2022 and 2023.

Georges Bank (GBK)

Overall, Georges Bank indicators show slight improvement since the stock assessment, though updates include no additional data since 2022*. Note that there are no YOY or VTS indicators for this sub-stock area.

- Trawl survey recruit abundance indicators showed slight improvements (Table 5 and Figure 5).
  - One updated five-year mean changed from neutral to positive since the stock assessment, while the other remained neutral.
  - 2022 values were both positive and relatively high, as were 2021 values.
  - No values were available for 2020 due to COVID-19 sampling restrictions.
  - These indicators tend to be noisier than some of the other abundance indicators, with high interannual variability and lack of discernible trends.
- Trawl survey encounter rates showed similar conditions since the stock assessment (Table 6 and Figure 6).
  - The updated means both remained positive.
  - No values were available for 2020 due to COVID-19 sampling restrictions.

Southern New England (SNE)

Overall, Southern New England indicators show continued unfavorable conditions with some further signs of decline since the stock assessment. Most updated indicators are at or near time series lows.

- YOY conditions were negative across the stock with some decline since the stock assessment (Table 7 and Figure 7).
  - Updated status for the five-year means were all negative, whereas one of three was neutral during the stock assessment.
  - No YOY have been caught during the MA survey for the last nine years.
  - It is very important to note that the CT/ELIS YOY values for 2022 and 2023 are calculated from only one and two observed larvae, respectively (marked with asterisks in Figure 7). Survey sampling methods changed in these years due to reduced encounters of lobsters, making interpretation of these two years problematic relative to the rest of the time series. The Stock Assessment Subcommittee will evaluate this dataset during the ongoing benchmark assessment to determine its use in future assessments and Data Updates.
- Trawl survey recruit abundance indicators showed declines since the stock assessment (Table 8 and Figure 8).
  - Updated status for the five-year means were all negative, with three of eight moving to negative conditions since the stock assessment. Two of these indicators (NEFSC) did not include additional data since 2022* when they were also negative.
  - No recruit lobsters were observed in 2023 for three of six available indicators.

    - Six of eight indicator values were not available for 2020 due to COVID-19 sampling restrictions.
- Trawl survey encounter rates showed deteriorating conditions since the stock assessment (Table 9 and Figure 9).
    - Updated status for the five-year means were all negative, with two changing from neutral to negative since the stock assessment. Two of these indicators (NEFSC) did not include additional data since 2022* when they were also negative.
    - No lobsters of any size were observed in 2023 for two of six available indicators.
    - Six of eight indicator values were not available for 2020 due to COVID-19 sampling restrictions.
- Ventless trap survey indices show continued declines since the stock assessment (Table 10 and Figure 10).
    - The status for three updated five-year means changed from neutral to negative since the stock assessment. The other updated five-year mean remained neutral.
    - All 2023 annual values had negative status; this is the second year in a row that annual status has been negative across all indicators.
    - It is important to note that the ventless trap survey has only taken place during depleted stock conditions coinciding with an adverse environmental regime, so interannual variability can be misleading without the context of a longer time series encompassing varying stock conditions.

Tables and Figures

Table 1. GOM abundance indicators: YOY indices.

YOUNG-OF-YEAR INDICES					
Survey	*ME*				*MA*
	511	*512*	*513 East*	*513 West*	*514*
1981					
1982					
1983					
1984					
1985					
1986					
1987					
1988					
1989			1.64		
1990			0.77		
1991			1.54		
1992			1.30		
1993			0.45		
1994			1.61		
1995		0.02	0.66		0.91
1996		0.05	0.47		
1997		0.05	0.46		0.10
1998		0.00	0.14		0.03
1999		0.04	0.65		0.43
2000	0.00	0.10	0.13	0.17	0.07
2001	0.24	0.43	2.08	1.17	0.39
2002	0.13	0.29	1.38	0.85	1.00
2003	0.22	0.27	1.75	1.22	0.75
2004	0.18	0.36	1.75	0.67	1.02
2005	1.42	1.25	2.40	1.12	1.06
2006	0.49	1.06	1.57	1.08	0.45
2007	0.59	1.11	2.23	1.30	1.27
2008	0.32	0.59	1.27	1.10	0.33
2009	0.66	0.33	1.51	0.48	0.17
2010	0.16	0.64	1.25	0.63	0.44
2011	0.41	0.98	2.33	0.90	0.58
2012	0.44	0.62	1.27	0.30	0.08
2013	0.09	0.22	0.34	0.12	0.00
2014	0.16	0.47	1.04	0.42	0.11
2015	0.15	0.22	0.42	0.03	0.00
2016	0.13	0.21	0.42	0.14	0.08
2017	0.21	0.36	0.65	0.23	0.08
2018	0.27	0.34	0.62	0.22	0.03
2014-2018 mean	0.18	0.32	0.63	0.21	0.06
2019	0.43	0.64	0.94	0.45	0.06
2020	0.29	0.51	1.06	0.33	0.19
2021	0.06	0.12	0.38	0.28	0.28
2022	0.13	0.59	0.71	0.42	0.11
2023	0.44	0.95	1.43	0.57	0.22
2019-2023 mean	0.27	0.56	0.90	0.41	0.17

25th	0.16	0.18	0.51	0.23	0.08
median	0.22	0.34	1.26	0.63	0.33
75th	0.43	0.60	1.60	1.09	0.67

Figure 1. GOM abundance indicators: YOY indices.

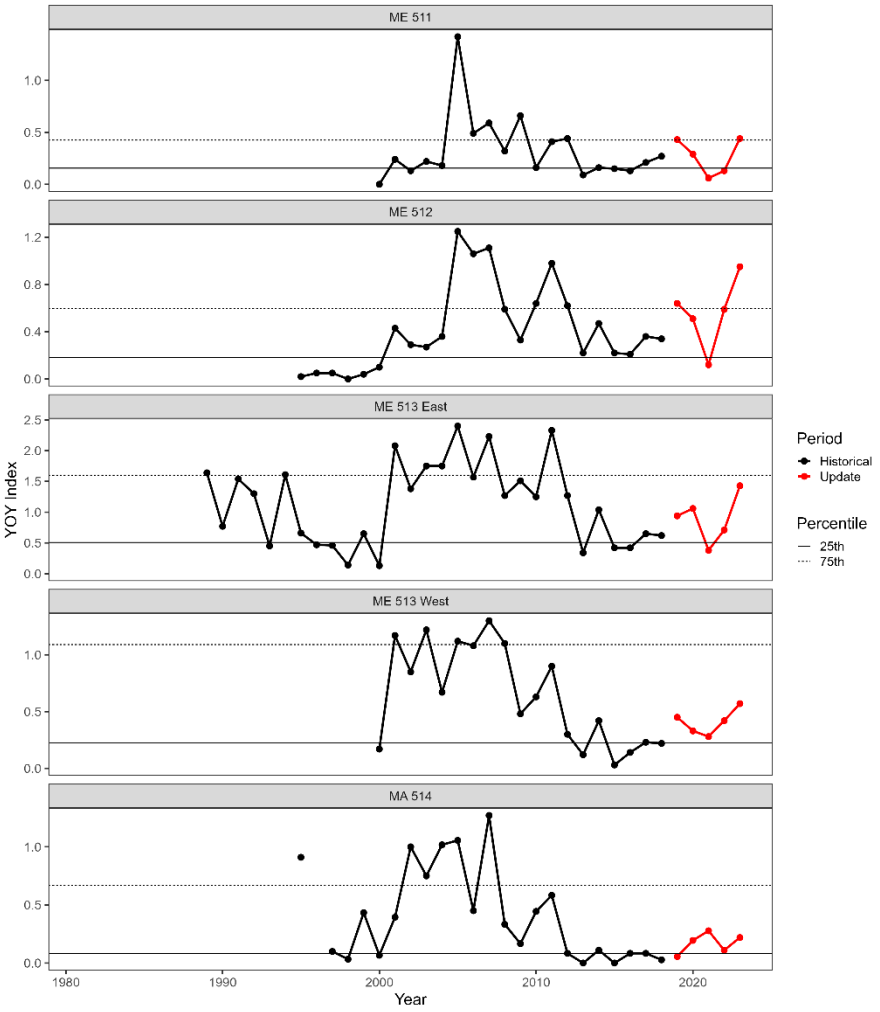


Table 2. GOM abundance indicators: trawl survey recruit abundance.

RECRUIT ABUNDANCE (SURVEY)						
Abundance of lobsters 71 - 80 mm CL (sexes combined)						
Survey	*NEFSC*		*ME/NH*		*MA 514*	
	Spring	*Fall*	*Spring*	*Fall*	*Spring*	*Fall*
1981	0.13	0.06			6.38	4.84
1982	0.29	0.42			2.74	3.85
1983	0.28	0.90			1.76	9.76
1984	0.20	0.31			2.15	6.13
1985	0.14	1.41			4.48	9.60
1986	0.27	1.29			3.01	3.80
1987	0.67	0.57			2.47	1.16
1988	0.67	1.21			2.52	4.12
1989	0.00	1.61			4.48	7.51
1990	0.27	1.76			6.11	15.36
1991	0.55	1.41			2.73	7.55
1992	0.50	1.37			4.31	8.95
1993	0.25	0.86			5.12	3.19
1994	0.15	2.75			7.59	13.77
1995	1.45	1.44			4.54	12.12
1996	0.76	4.59			3.09	12.10
1997	2.02	2.12			4.59	6.46
1998	1.59	2.16			4.50	7.47
1999	1.51	3.01			4.29	8.73
2000	4.64	3.01		24.09	4.24	8.87
2001	1.05	1.51	9.28	17.81	4.32	1.58
2002	1.08	1.91	22.00	22.41	3.43	5.00
2003	1.41	0.36	10.65	18.32	1.96	0.66
2004	0.84	2.26	7.55	12.29	2.46	1.30
2005	0.34	0.87	18.51	25.90	4.35	2.11
2006	2.17	1.27	18.07	18.30	6.09	5.30
2007	1.62	0.64	15.91	16.82	0.77	1.61
2008	0.99	2.41	17.88	31.61	2.54	6.12
2009	4.88	4.90	24.72	32.67	3.19	8.88
2010	2.98	4.53	17.66	37.35	2.22	9.39
2011	10.27	11.83	39.25	46.09	5.24	15.04
2012	11.25	6.74	36.55	37.12	3.03	11.30
2013	10.93	18.12	34.50	37.86	4.83	12.20
2014	11.66	21.54	50.79	41.95	3.35	7.06
2015	14.44	17.89	38.51	67.99	7.05	17.91
2016	13.25	22.54	50.83	60.07	13.61	17.44
2017	15.74		48.42	48.13	7.85	13.58
2018	14.15	15.87	42.77	55.84	5.25	25.69
2014-2018 mean	13.84	19.46	46.26	54.80	7.42	16.34
2019	16.69	7.62	46.37	50.85	10.69	14.59
2020				34.65		
2021	10.05	8.04	32.86	32.19	6.39	10.16
2022	11.82	8.29	22.78	24.86	8.61	6.27
2023			25.08	32.09	4.51	8.78
2019-2023 mean	12.85	7.98	31.77	34.93	7.55	9.95
25th	0.30	1.21	17.72	20.37	2.73	4.30
median	1.07	1.76	23.36	32.67	4.30	7.53
75th	4.23	4.53	39.07	44.02	5.05	11.90

Figure 2. GOM abundance indicators: trawl survey recruit abundance.

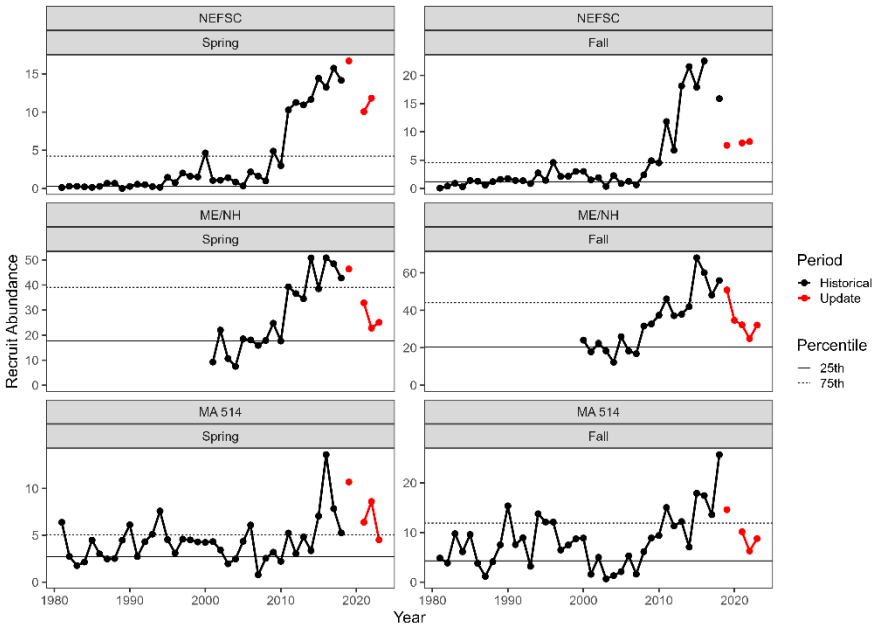


Table 3. GOM abundance indicators: trawl survey encounter rate.

SURVEY LOBSTER ENCOUNTER RATE Proportion of postive tows						
Survey	*NEFSC*		*ME/NH*		*MA 514*	
	Spring	*Fall*	*Spring*	*Fall*	*Spring*	*Fall*
1981	0.44	0.25			0.86	0.72
1982	0.34	0.18			0.50	0.70
1983	0.26	0.33			0.76	0.76
1984	0.28	0.36			0.76	0.76
1985	0.38	0.49			0.71	0.67
1986	0.33	0.47			0.68	0.83
1987	0.43	0.24			0.85	0.54
1988	0.31	0.30			0.76	0.58
1989	0.19	0.35			0.78	0.95
1990	0.41	0.32			0.86	0.95
1991	0.42	0.32			0.87	0.94
1992	0.40	0.24			0.93	0.77
1993	0.41	0.39			0.97	0.82
1994	0.45	0.40			1.00	0.93
1995	0.41	0.37			0.93	0.93
1996	0.54	0.54			0.91	0.95
1997	0.64	0.35			0.93	0.86
1998	0.52	0.40			0.76	0.69
1999	0.51	0.42			0.73	0.91
2000	0.63	0.42		0.94	0.93	0.98
2001	0.57	0.40	0.88	0.86	0.93	0.72
2002	0.75	0.53	0.94	0.95	0.91	0.73
2003	0.69	0.44	0.92	0.85	0.82	0.55
2004	0.87	0.31	0.89	0.86	0.84	0.56
2005	0.77	0.36	0.95	0.91	0.95	0.67
2006	0.72	0.60	0.93	0.93	0.91	0.88
2007	0.72	0.43	0.97	0.85	0.51	0.54
2008	0.84	0.49	0.92	0.86	0.83	0.75
2009	0.82	0.63	0.98	0.92	0.89	0.87
2010	0.85	0.75	0.98	0.96	0.87	0.98
2011	0.83	0.74	0.99	0.96	0.89	0.85
2012	0.86	0.78	0.98	0.98	0.91	0.95
2013	0.87	0.73	1.00	0.93	0.96	0.95
2014	0.90	0.71	1.00	0.99	0.79	0.96
2015	0.93	0.69	1.00	0.96	0.98	0.95
2016	0.94	0.75	1.00	0.96	0.96	0.97
2017	0.86		0.99	0.94	0.84	0.98
2018	0.86	0.71	0.98	0.96	0.84	0.90
2014-2018 mean	0.90	0.72	0.99	0.96	0.88	0.95
2019	0.83	0.71	0.99	0.95	0.85	0.92
2020				0.96		
2021	0.90	0.75	1.00	0.91	0.86	0.90
2022	0.79	0.76	0.98	0.90	0.78	0.85
2023			0.96	0.91	0.85	0.83
2019-2023 mean	0.84	0.74	0.98	0.93	0.84	0.88

25th	0.41	0.35	0.93	0.89	0.78	0.72
median	0.60	0.42	0.98	0.94	0.87	0.86
75th	0.84	0.60	0.99	0.96	0.93	0.95

Figure 3. GOM abundance indicators: trawl survey encounter rate.

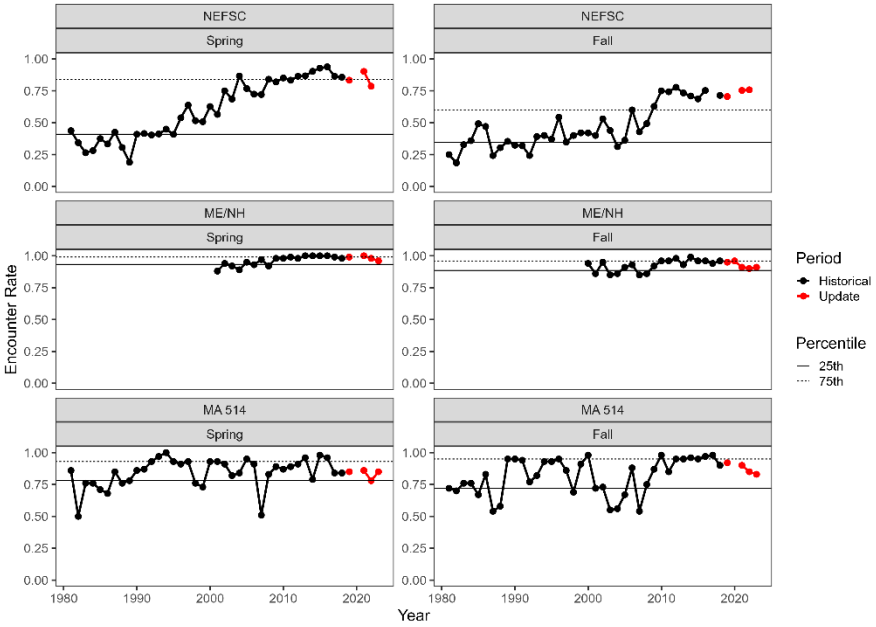


Table 4. GOM abundance indicators: ventless trap survey abundance.

VENTLESS TRAP ABUNDANCE Abundance of lobsters ≥ 53 mm CL								
Survey	*511*		*512*		*513*		*514*	
	Female	*Male*	*Female*	*Male*	*Female*	*Male*	*Female*	*Male*
1981								
1982								
1983								
1984								
1985								
1986								
1987								
1988								
1989								
1990								
1991								
1992								
1993								
1994								
1995								
1996								
1997								
1998								
1999								
2000								
2001								
2002								
2003								
2004								
2005								
2006	7.65	5.34	6.87	5.38	5.73	4.37	3.10	3.40
2007	5.06	3.91	3.95	3.83	5.82	4.35	1.85	1.84
2008	4.94	3.87	5.78	4.95	5.78	4.97	2.77	2.51
2009	3.60	2.65	6.31	5.35	6.89	5.53	2.72	2.66
2010	5.66	3.90	6.95	5.69	6.61	5.27	2.49	2.22
2011	8.70	6.52	11.10	8.48	7.32	5.60	3.47	2.60
2012	10.95	7.64	12.06	9.47	11.40	7.72	5.21	4.52
2013	11.14	7.95	11.87	8.64	9.36	6.49		
2014	10.38	6.63	11.92	8.04	7.74	4.96	3.15	2.35
2015	8.47	4.63	10.39	7.70	8.54	5.48	4.01	3.16
2016	14.59	9.15	14.34	10.75	10.78	7.56	4.79	3.56
2017	11.69	7.07	11.61	8.52	8.46	5.56	3.38	2.45
2018	15.10	9.43	11.26	8.23	9.57	6.37	3.47	2.43
2014-2018 mean	12.05	7.38	11.90	8.65	9.02	5.99	3.76	2.79
2019	12.93	8.27	8.22	5.94	8.68	5.25	2.85	1.93
2020	7.66	5.47	7.91	5.96	9.29	6.61	2.50	1.69
2021	7.34	5.44	5.94	5.23	8.24	5.93	1.77	1.37
2022	6.69	4.95	4.83	4.18	7.88	6.21	1.63	0.96
2023	4.94	3.86	5.20	4.61	8.33	6.33	1.81	1.51
2019-2023 mean	7.91	5.60	6.42	5.18	8.48	6.06	2.11	1.49

25th	5.66	3.91	6.87	5.38	6.61	4.97	2.76	2.41
median	8.70	6.52	11.10	8.04	7.74	5.53	3.27	2.56
75th	11.14	7.64	11.87	8.52	9.36	6.37	3.61	3.22

Figure 4. GOM abundance indicators: ventless trap survey abundance.

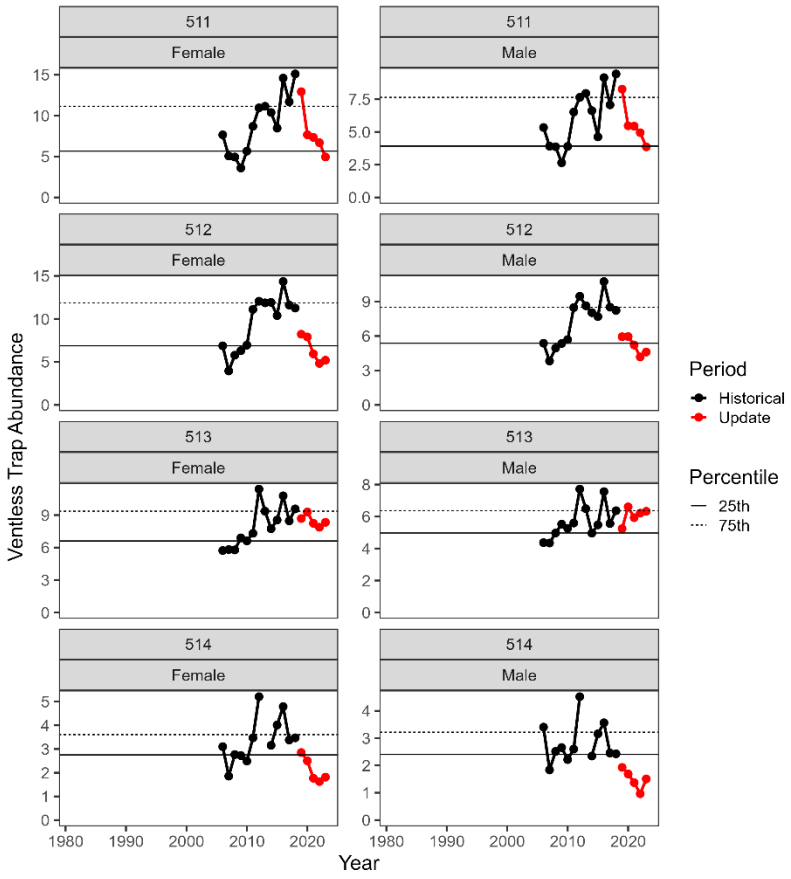


Table 5. GBK abundance indicators: trawl survey recruit abundance.

RECRUIT ABUNDANCE (SURVEY)		
Abundance of lobsters 71 - 80 mm CL (sexes combined)		
Survey	*NEFSC*	
	Spring	*Fall*
1981	0.08	0.28
1982	0.18	0.41
1983	0.16	0.33
1984	0.09	0.40
1985	0.19	0.26
1986	0.57	0.64
1987	0.43	0.54
1988	0.09	0.36
1989	0.04	0.23
1990	0.44	0.47
1991	0.08	0.34
1992	0.13	0.62
1993	0.50	0.22
1994	0.01	0.13
1995	0.03	0.14
1996	0.00	0.35
1997	0.06	0.90
1998	0.01	0.33
1999	0.07	0.29
2000	0.27	0.33
2001	0.47	0.45
2002	0.06	0.56
2003	0.29	0.16
2004	0.04	0.18
2005	0.09	0.13
2006	0.16	0.12
2007	0.03	0.23
2008	0.05	0.17
2009	0.30	0.33
2010	0.30	0.15
2011	0.09	0.35
2012	0.15	0.17
2013	0.14	0.24
2014	0.16	0.21
2015	0.06	0.44
2016	0.15	0.13
2017	0.35	
2018	0.04	0.22
2014-2018 mean	0.15	0.25
2019	0.16	0.13
2020		
2021	0.41	0.43
2022	0.42	0.62
2023		
2019-2023 mean	0.33	0.39

25th	0.06	0.18
median	0.11	0.29
75th	0.25	0.40

Figure 5. GBK abundance indicators: trawl survey recruit abundance.

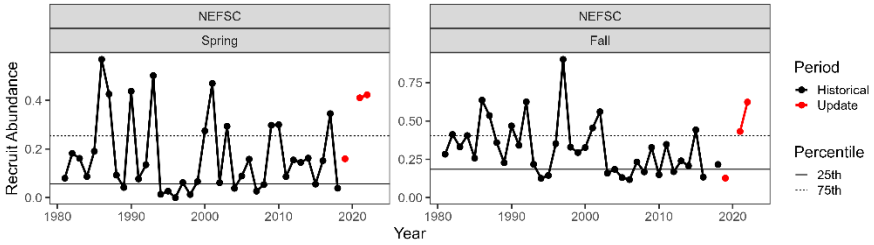


Table 6. GBK abundance indicators: trawl survey encounter rate.

SURVEY LOBSTER ENCOUNTER RATE		
Proportion of postive tows		
Survey	***NEFSC***	
	Spring	***Fall***
1981	0.23	0.52
1982	0.23	0.43
1983	0.18	0.38
1984	0.12	0.34
1985	0.19	0.35
1986	0.27	0.36
1987	0.18	0.35
1988	0.34	0.40
1989	0.14	0.38
1990	0.18	0.44
1991	0.19	0.45
1992	0.26	0.49
1993	0.22	0.36
1994	0.11	0.38
1995	0.14	0.42
1996	0.16	0.40
1997	0.10	0.48
1998	0.10	0.40
1999	0.16	0.58
2000	0.23	0.41
2001	0.23	0.49
2002	0.29	0.55
2003	0.27	0.44
2004	0.18	0.53
2005	0.16	0.58
2006	0.24	0.54
2007	0.26	0.46
2008	0.29	0.55
2009	0.34	0.54
2010	0.38	0.62
2011	0.30	0.69
2012	0.35	0.57
2013	0.33	0.65
2014	0.37	0.61
2015	0.27	0.59
2016	0.45	0.55
2017	0.40	
2018	0.29	0.59
2014-2018 mean	0.36	0.58
2019	0.36	0.57
2020		
2021	0.41	0.48
2022	0.34	0.64
2023		
2019-2023 mean	0.37	0.56

25th	0.18	0.40
median	0.23	0.48
75th	0.29	0.55

Figure 6. GBK abundance indicators: trawl survey encounter rate.

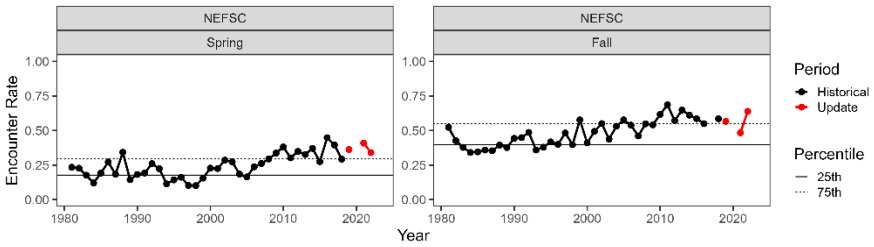


Table 7. SNE abundance indicators: YOY indices.

YOUNG-OF-YEAR INDICES			
Survey	***MA***	***RI***	***CT / ELIS Larvae***
1981			
1982			
1983			
1984			0.43
1985			0.53
1986			0.90
1987			0.78
1988			0.74
1989			0.74
1990		1.18	0.81
1991		1.51	0.55
1992		0.63	1.44
1993		0.51	1.19
1994		1.27	0.98
1995	0.17	0.34	1.46
1996	0.00	0.15	0.31
1997	0.08	0.98	0.21
1998	0.28	0.57	0.55
1999	0.06	1.03	2.83
2000	0.33	0.33	0.78
2001	0.11	0.75	0.32
2002	0.11	0.25	0.64
2003	0.00	0.73	0.25
2004	0.06	0.42	0.45
2005	0.17	0.54	0.49
2006	0.22	0.44	0.71
2007	0.17	0.36	0.37
2008	0.00	0.14	0.37
2009	0.06	0.06	0.19
2010	0.00	0.11	0.35
2011	0.00	0.00	0.26
2012	0.00	0.09	0.12
2013	0.17	0.19	0.16
2014	0.11	0.22	0.06
2015	0.00	0.17	0.19
2016	0.00	0.06	0.45
2017	0.00	0.03	0.10
2018	0.00	0.03	0.17
2014-2018 mean	0.02	0.10	0.19
2019	0.00	0.03	0.21
2020	0.00	0.14	0.10
2021	0.00	0.08	0.19
2022	0.00	0.03	0.25
2023	0.00	0.03	0.48
2019-2023 mean	0.00	0.06	0.24

25th	0.00	0.14	0.26
median	0.06	0.34	0.45
75th	0.17	0.63	0.76

Figure 7. SNE abundance indicators: YOY indices.
Asterisks indicate years with survey changes.

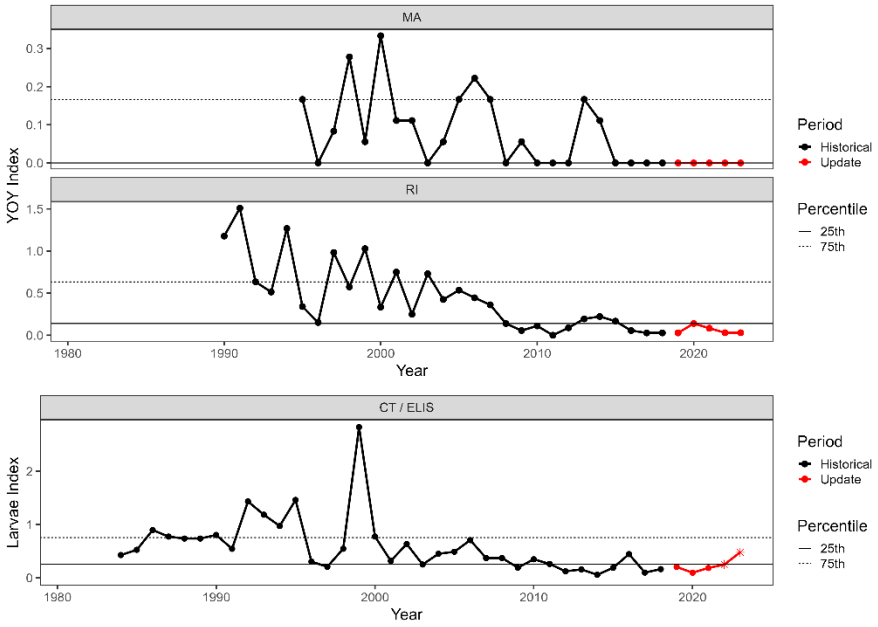


Table 8. SNE abundance indicators: trawl survey recruit abundance.

RECRUIT ABUNDANCE (SURVEY)								
Abundance of lobsters 71 - 80 mm CL (sexes combined)								
Survey	*NEFSC*		*MA*		*RI*		*CT*	
	Spring	*Fall*	*Spring*	*Fall*	*Spring*	*Fall*	*Spring*	*Fall*
1981	0.10	0.89	0.65	0.07	0.89	1.31		
1982	0.74	0.74	0.10	0.04	0.26	0.64		
1983	0.45	0.62	0.09	0.04	0.94	0.43		
1984	0.10	0.81	0.42	0.01	1.03	1.35	10.09	6.80
1985	1.99	1.01	0.34	0.09	0.28	0.97	3.08	3.93
1986	0.18	0.59	0.17	0.20	0.91	1.28	2.77	5.76
1987	1.04	0.45	0.26	0.17	0.79	3.14	2.93	6.86
1988	0.55	0.60	0.24	0.16	0.47	4.05	1.85	4.88
1989	0.09	1.65	0.14	0.43	0.90	3.26	4.86	5.28
1990	0.71	0.83	2.29	0.31	2.17	2.69	6.89	7.74
1991	0.31	0.51	1.18	0.87	4.77	3.10	10.83	10.32
1992	0.19	0.94	0.10	0.57	0.62	1.97	10.31	10.65
1993	0.59	0.42	0.25	0.52	7.81	8.29	7.78	15.18
1994	0.15	0.38	0.95	0.42	1.00	3.88	5.07	11.51
1995	0.01	0.61	1.14	0.03	1.33	4.50	12.13	11.20
1996	0.40	2.39	0.40	0.32	1.60	6.55	11.37	11.08
1997	1.64	1.60	1.45	0.12	2.58	6.10	15.42	24.99
1998	0.78	1.06	1.09	0.11	1.63	3.24	24.06	12.72
1999	2.43	0.66	0.75	0.19	1.71	2.07	24.57	12.96
2000	0.67	1.27	0.56	0.13	1.54	1.83	13.37	8.27
2001	0.39	0.45	0.18	0.03	2.97	2.17	10.77	7.41
2002	1.63	0.39	0.34	0.00	2.68	0.73	8.07	2.75
2003	0.34	0.33	0.07	0.00	0.29	0.93	3.52	4.08
2004	0.27	0.28	0.05	0.00	1.86	1.48	2.38	3.37
2005	0.11	0.24	0.08	0.00	1.07	2.53	2.26	1.54
2006	0.19	0.32	0.08	0.03	3.63	2.24	2.02	1.38
2007	0.19	0.35	0.08	0.00	0.68	2.68	2.65	1.12
2008	0.21	0.29	0.16	0.01	0.64	2.95	2.20	1.27
2009	0.15	0.35	0.16	0.05	1.14	1.36	1.20	1.33
2010	0.21	0.73	0.06	0.18	0.44	1.21	1.26	
2011	0.10	0.64	0.18	0.00	0.42	1.02	0.43	0.18
2012	0.11	0.99	0.07	0.21	0.30	0.18	0.44	0.08
2013	0.23	0.44	0.11	0.04	0.16	0.02	0.23	0.06
2014		0.67	0.04	0.00	0.02	0.14	0.15	0.05
2015	0.03	0.28	0.07	0.30	0.05	0.37	0.15	0.06
2016	0.83	0.69	0.05	0.14	0.57	0.25	0.16	0.00
2017	0.10		0.13	0.16	0.14	0.41	0.03	0.00
2018	0.08	0.38	0.02	0.01	0.18	0.68	0.00	0.01
2014-2018 mean	0.26	0.51	0.06	0.12	0.19	0.37	0.10	0.03
2019	0.06	0.32	0.01	0.02	0.52	0.50	0.03	0.00
2020					0.23	0.32		
2021	0.01	0.59	0.01	0.00	0.27	0.07	0.03	0.00
2022	0.09	0.19	0.00	0.00	0.09	0.16	0.00	0.01
2023			0.00	0.01	0.07	0.05	0.00	0.00
2019-2023 mean	0.05	0.37	0.01	0.01	0.24	0.22	0.01	0.00
25th	0.11	0.38	0.08	0.02	0.42	0.78	1.23	1.16
median	0.23	0.61	0.17	0.10	0.91	1.65	2.93	4.48
75th	0.67	0.83	0.42	0.20	1.62	3.07	10.20	9.81

Figure 8. SNE abundance indicators: trawl survey recruit abundance.

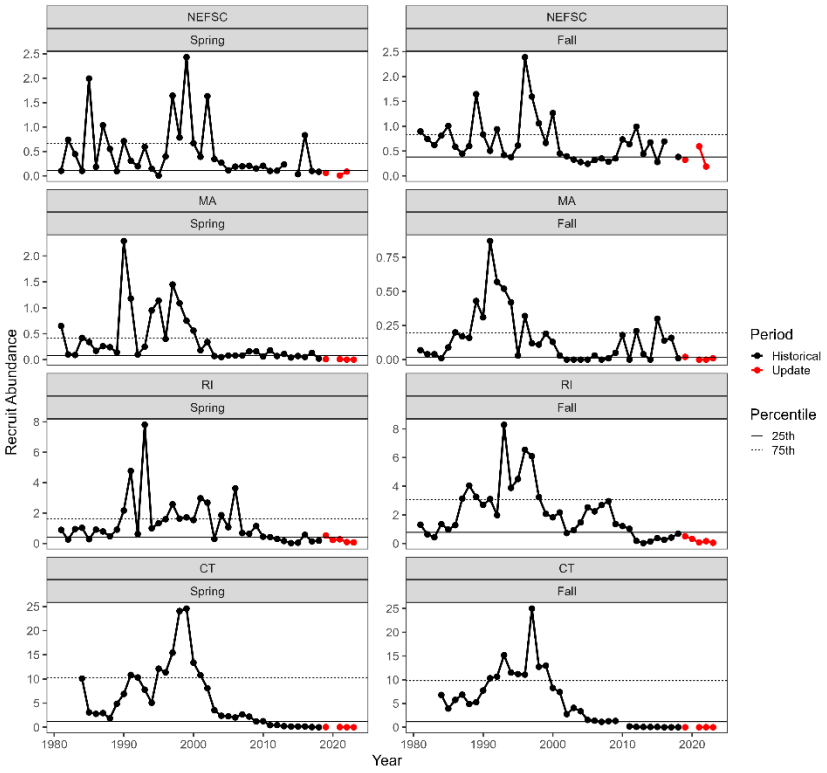


Table 9. SNE abundance indicators: trawl survey encounter rate.

SURVEY LOBSTER ENCOUNTER RATE								
Proportion of postive tows								
Survey	*NEFSC*		*MA*		*RI*		*CT*	
	Spring	*Fall*	*Spring*	*Fall*	*Spring*	*Fall*	*Spring*	*Fall*
1981	0.18	0.47	0.38	0.15	0.49	0.41		
1982	0.26	0.35	0.28	0.21	0.30	0.43		
1983	0.14	0.26	0.21	0.16	0.46	0.37		
1984	0.08	0.32	0.40	0.18	0.59	0.44	0.63	0.76
1985	0.21	0.34	0.51	0.22	0.31	0.50	0.57	0.69
1986	0.17	0.25	0.39	0.38	0.64	0.46	0.67	0.61
1987	0.13	0.23	0.28	0.18	0.35	0.47	0.63	0.76
1988	0.09	0.28	0.39	0.21	0.49	0.55	0.65	0.66
1989	0.13	0.40	0.50	0.33	0.52	0.57	0.75	0.63
1990	0.14	0.44	0.66	0.44	0.64	0.53	0.73	0.76
1991	0.14	0.33	0.41	0.39	0.77	0.69	0.81	0.77
1992	0.22	0.34	0.51	0.23	0.40	0.57	0.77	0.68
1993	0.12	0.27	0.54	0.26	0.50	0.71	0.73	0.75
1994	0.09	0.25	0.51	0.20	0.58	0.57	0.73	0.74
1995	0.05	0.35	0.44	0.12	0.55	0.67	0.77	0.68
1996	0.10	0.39	0.30	0.16	0.79	0.76	0.66	0.78
1997	0.25	0.28	0.45	0.21	0.75	0.71	0.71	0.81
1998	0.12	0.34	0.54	0.13	0.59	0.55	0.83	0.71
1999	0.22	0.28	0.41	0.21	0.76	0.59	0.78	0.79
2000	0.13	0.31	0.45	0.15	0.68	0.63	0.81	0.73
2001	0.21	0.25	0.28	0.18	0.65	0.60	0.77	0.58
2002	0.19	0.24	0.28	0.03	0.61	0.45	0.73	0.59
2003	0.11	0.26	0.14	0.03	0.51	0.40	0.71	0.64
2004	0.10	0.19	0.28	0.03	0.54	0.50	0.61	0.66
2005	0.08	0.19	0.34	0.15	0.49	0.45	0.63	0.54
2006	0.14	0.23	0.42	0.03	0.79	0.62	0.61	0.51
2007	0.13	0.21	0.34	0.10	0.44	0.54	0.70	0.53
2008	0.10	0.22	0.32	0.10	0.55	0.52	0.63	0.65
2009	0.17	0.32	0.50	0.05	0.57	0.40	0.49	0.55
2010	0.12	0.33	0.22	0.24	0.47	0.45	0.54	
2011	0.13	0.35	0.17	0.05	0.30	0.23	0.46	0.28
2012	0.13	0.34	0.17	0.15	0.27	0.16	0.43	0.20
2013	0.10	0.28	0.18	0.08	0.20	0.09	0.28	0.15
2014		0.26	0.13	0.08	0.07	0.23	0.26	0.10
2015	0.06	0.27	0.10	0.05	0.12	0.16	0.27	0.10
2016	0.15	0.25	0.08	0.11	0.30	0.14	0.25	0.03
2017	0.08		0.07	0.16	0.16	0.23	0.08	0.03
2018	0.08	0.29	0.11	0.06	0.09	0.18	0.09	0.01
2014-2018 mean	0.09	0.27	0.10	0.09	0.15	0.19	0.19	0.05
2019	0.05	0.26	0.05	0.11	0.16	0.11	0.09	0.00
2020					0.16	0.16		
2021	0.04	0.18	0.07	0.00	0.20	0.12	0.06	0.03
2022	0.08	0.17	0.00	0.00	0.14	0.09	0.01	0.04
2023			0.00	0.03	0.18	0.05	0.00	0.01
2019-2023 mean	0.06	0.21	0.03	0.04	0.17	0.10	0.04	0.02

25th	0.10	0.25	0.21	0.09	0.32	0.40	0.52	0.52
median	0.13	0.28	0.34	0.16	0.51	0.49	0.65	0.64
75th	0.17	0.34	0.45	0.21	0.60	0.57	0.73	0.74

Figure 9. SNE abundance indicators: trawl survey encounter rate.

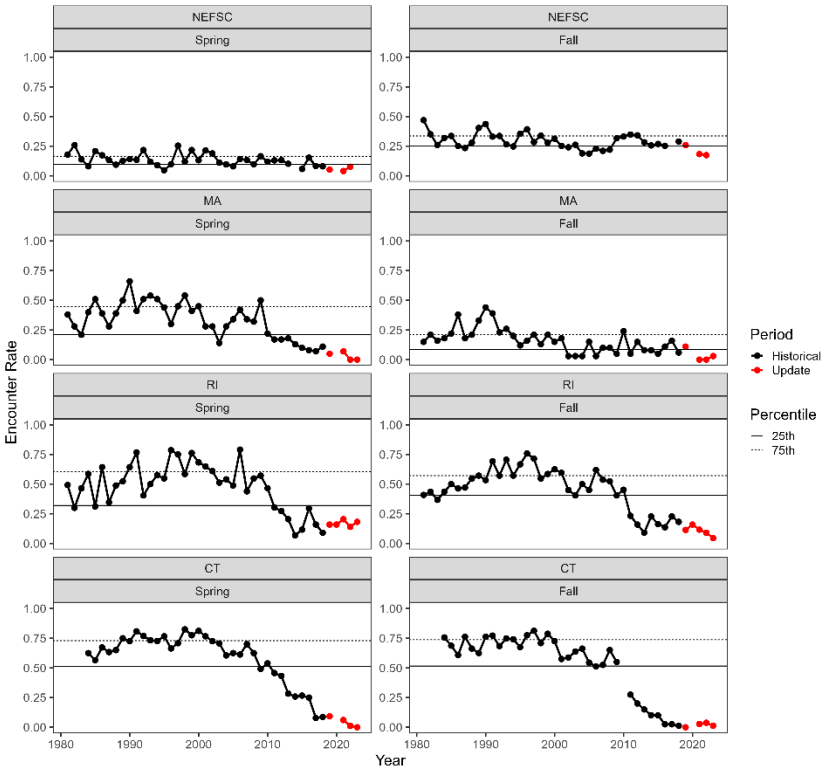
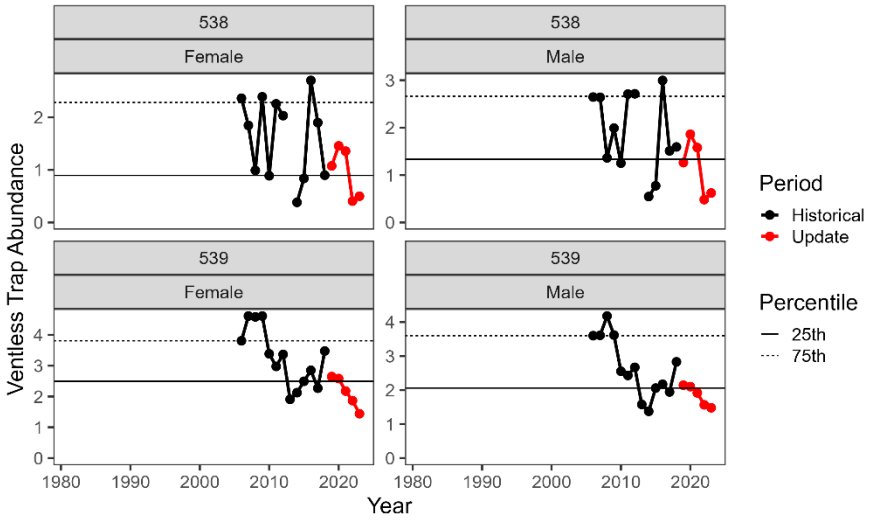


Table 10. SNE abundance indicators: ventless trap survey abundance.

VENTLESS TRAP ABUNDANCE				
Abundance of lobsters ≥ 53 mm CL				
Survey	*538*		*539*	
	Female	*Male*	*Female*	*Male*
1981				
1982				
1983				
1984				
1985				
1986				
1987				
1988				
1989				
1990				
1991				
1992				
1993				
1994				
1995				
1996				
1997				
1998				
1999				
2000				
2001				
2002				
2003				
2004				
2005				
2006	2.36	2.64	3.81	3.60
2007	1.84	2.64	4.61	3.61
2008	0.99	1.36	4.58	4.18
2009	2.39	1.99	4.61	3.62
2010	0.89	1.25	3.38	2.55
2011	2.25	2.71	2.98	2.43
2012	2.03	2.71	3.37	2.67
2013			1.91	1.58
2014	0.38	0.55	2.12	1.38
2015	0.84	0.77	2.49	2.06
2016	2.70	3.00	2.85	2.17
2017	1.90	1.51	2.27	1.94
2018	0.90	1.59	3.48	2.83
2014-2018 mean	1.34	1.48	2.64	2.08
2019	1.08	1.26	2.65	2.14
2020	1.46	1.86	2.58	2.10
2021	1.36	1.58	2.18	1.92
2022	0.41	0.48	1.87	1.57
2023	0.50	0.62	1.44	1.48
2019-2023 mean	0.96	1.16	2.14	1.84

25th	0.90	1.33	2.49	2.06
median	1.87	1.79	3.37	2.55
75th	2.28	2.66	3.81	3.60

Figure 10. SNE abundance indicators: ventless trap survey abundance.



Appendix: Data Update Data Changes

Rhode Island (2024 Update)

A slightly more conservative method for identifying traps to exclude from the VTS data set was adopted during the 2024 Data Update (terminal data year of 2023). For example, some traps with a hole in the funnel or side head were excluded whereas they were not in previous years. The table below compares the number of traps retained for index calculation between the 2024 Data Update and 2023 Data Update.

Year	2023 Data Update	2024 Data Update
2006	852	851
2007	848	848
2008	864	864
2009	804	804
2010	858	857
2011	858	858
2012	834	830
2013	839	836
2014	832	825
2015	854	846
2016	831	817
2017	833	831
2018	846	839
2019	858	850
2020	836	826
2021	864	851
2022	861	815

The only change in conditions the data change causes is for 2019 and 2020 annual values for both sexes which change from negative conditions during the 2023 Data Update to neutral conditions during the 2024 Data Update. The terminal five-year means are negative for both sexes during both data updates.

Maine (2023 Update)

During the 2023 Data Update (terminal data year of 2022), a few errors were found in the upload process where data was not uploaded correctly and treated in a consistent manner as the assessment. For the Fall 2021 ME/NH Trawl Survey, the sex of sampled lobsters did not upload correctly, leading to 7 tows being excluded in error. These data have now been corrected and included. During the 2020 assessment, the stock assessment team, in consultation with survey staff, determined that a very large outlier tow in the Spring 2014 ME/NH Trawl Survey should be excluded from the assessment. However, this outlier tow was not excluded in the 2022 Data Update. It was excluded for the 2023 Data Update, consistent with the stock assessment. For the Maine settlement survey, data for 2013 was not uploaded completely and this has now been corrected.

Massachusetts (2023 Update)

Following the 2022 Data Update (terminal year of 2021), an error was discovered in the data pull for the SNE VTS index that did not filter the frequency of trawl hauls per month in historical data to match the

reduced sampling frequency in data since the footprint reduction (see below; reduced to 1 haul/month). This error was corrected in the data pull for the 2023 Data Update.

Massachusetts (2022 Update)

Following the 2021 Data Update (terminal data year of 2020), there was a reduction in the spatial coverage of the SNE VTS (Statistical Area 538) due to reduced participation. This change necessitates dropping out data collected during earlier years from areas no longer sampled to calculate an index from a consistent survey footprint, resulting in changes to the indices. Note that the updated index increased slightly in scale (the reduced footprint excludes most of the interior of Buzzards Bay), but the pattern over time is generally consistent with the previous index.

Rhode Island (2022 Update)

Some changes to the SNE VTS Statistical Area 539 (RI) data occurred between the 2021 Data Update (terminal data year of 2020) and 2022 Data Update (terminal data year of 2021). Upon further QA/QC in site or sample location, strata classification for select stations over time were rectified. Data as such were updated to reflect these changes during the 2022 Data Update.

Draft Document for Public Comment

Atlantic States Marine Fisheries Commission

DRAFT ADDENDUM XXXI TO AMENDMENT 3 TO THE AMERICAN LOBSTER FISHERY MANAGEMENT PLAN FOR PUBLIC COMMENT

Postponing Implementation of Addendum XXVII Measures

September 2024

Sustainable and Cooperative Management of Atlantic Coastal Fisheries

Public Comment Process and Proposed Timeline

In August 2024, the American Lobster Management Board (Board) initiated Draft Addendum XXXI to consider postponing implementation of certain measures of Addendum XXVII. Addendum XXVII established a trigger mechanism to automatically implement management measures to provide additional protection of the Gulf of Maine/Georges Bank (GOM/GBK) spawning stock biomass. Under Addendum XXVII, changes to gauge and escape vent sizes in Lobster Conservation Management Areas (LCMAs) 1 (Gulf of Maine), 3 (offshore federal waters) and Outer Cape Cod (OCC) were triggered in October 2023 based on an observed decline in recruit abundance indices of >35% from the reference level (equal to the three-year average from 2016-2018), which triggered management changes to be implemented by June 1, 2024. The Board extended the implementation date of the series of changes to gauge and vent size to begin January 1, 2025 to allow the Gulf of Maine states the opportunity to coordinate with Canada regarding possible trade implications, and give the industry and gauge makers additional time to prepare for these changes.

Draft Addendum XXXI considers further delaying the biological measures (size limits and v-notch definitions) an additional six months to July 1, 2025. The purpose of postponing the changes in minimum gauge size for LCMA 1 and the measures under Section 3.1 of Addendum XXVII to create a common size limit for state-only and federal permit holders fishing in OCC is to reduce negative impacts to the US and Canadian lobster industries in 2025 and allow Canada more time to consider implementing complementary management measures.

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 **October 6, 2024 at 11:59 p.m**. **EST.** Comments may be submitted by mail or email. If you have any questions or would like to submit comments, please use the contact information below.

Mail: Caitlin Starks
Atlantic States Marine Fisheries Commission
1050 N. Highland St. Suite 200A-N
Arlington, VA 22201

Email: comments@asmfc.org
(Subject line: Lobster Draft Addendum XXXI)

Date	Action
August 2024	Draft Addendum for Public Comment Developed
August 2024	Board Approved Draft Addendum for Public Comment
September-October 2024	Public Comment Period Including Public Hearings
October 2024	Board Reviews Public Comment, Selects Management Measures, Final Approval of Addendum XXXI
TBD	Implementation of certain Addendum XXVII Measures

Table of Contents

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-XXX 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 Gulf of Maine/Georges Bank (GOM/GBK) stock (subject of this draft addendum) is primarily comprised of three Lobster Conservation Management Areas (LCMAs), including LCMAs 1 (GOM), 3 (offshore federal waters), and Outer Cape Cod (OCC) (Figure 1). There are three states (Maine, New Hampshire, and Massachusetts) which regulate American lobster in states waters of the GOM/GBK stock; however, landings from the GOM/GBK stock occur from Rhode Island through New York and these states regulate lobsters landed in state ports.

Addendum XXVII was approved on May 2023, establishing a trigger mechanism to automatically implement management measures to provide additional protection of the GOM/GBK spawning stock biomass. Under Addendum XXVII, changes to gauge and escape vent sizes in LCMAs 1, 3 and OCC would be initiated based on an observed decline in recruit abundance indices of 35% from the reference level (equal to the three-year average from 2016-2018). In October 2023, the Technical Committee reported that with the inclusion of 2022 data in the index time series, the trigger index had declined by 39%, surpassing the trigger point of a 35% decline. This decline required the impacted states to change the minimum gauge for LCMA 1 by June 1, 2024.

In October 2023, the American Lobster Management Board (Board) modified the implementation date for the measures in Addendum XXVII to January 1, 2025. The extension of the implementation date was to provide the GOM states the opportunity to coordinate with Canada regarding possible trade implications, and give the industry and gauge makers additional time to prepare for the changes.

In August 2024, the Board passed the following motion:

> *Move to initiate an addendum to delay the biological measures implementation date of Addendum XXVII until July 1, 2025. Specifically, biological measures under Section 3.1 that created common size limits for state-only and federal permit holders fishing in Outer Cape Cod would be implemented effective July 1, 2025. Similarly, management measures triggered under Section 3.2 would be implemented by July 1, 2025 starting with the Year 1 measures, and subsequent management measures (additional minimum size increase in Area 1 in year 3; vent size increase in Area 1 in year 4; maximum size reduction in Area 3 and Outer Cape Cod) would be implemented by July 1 of the calendar year for which they are required. Trap tag issuance regulations regarding the routine issuance of 10% additional trap tags in Areas 3 and 1 above the trap limit or allocation would remain unchanged.*

The action proposed in this document would be to postpone the gauge and escape vent size changes in sections 3.1 and 3.2 of Addendum XXVII for an additional six months to July 1, 2025. The Draft Addendum does not consider postponing regulations prohibiting the issuance of 10% additional trap tags in Areas 1 and 3 above the trap limit or allocation.

2.0 Overview

2.1 Background and Statement of Problem

In June 2024, a meeting was held between US and Canadian lobster fishery managers and industry members to discuss lobster management structures and stock assessments of the two countries. There was some interest on the part of Canadian fishing representatives to match the US minimum size increase in the GOM to minimize commerce issues and to address resource changes seen in some of the maritime lobster fishing areas (LFA), but any changes to management would be proposed by industry under the current status of the Canadian stocks. The timing of a possible Canadian action could not be completed by January 1, 2025, when the US rules are scheduled for implementation. To allow the Canadian industry time to have the necessary discussions to consider complementary conservation measures of an increased minimum size in their GOM LFAs, the group discussed the possibility of postponing the biological measures of Addendum XXVII. A postponement to July 1, 2025 would allow the Canadian LFA fisheries in the GOM, which take place predominantly in the first half of the year, time to discuss a potential gauge change after their fisheries close. In addition, the Massachusetts inshore fishery does not open until after North Atlantic right whales migrate out of Massachusetts state waters (usually in early to mid-May), and most inshore catches occur after the shed in July; therefore, the proposed delay would match up with the start of the majority of the US inshore Gulf of Maine fishery.

Based on this meeting with Canada, the Board determined that postponing implementation of Addendum XXVII's biological measures to July 1, 2025 would reduce negative impacts to the US and Canadian lobster industries in 2025 and allow Canada more time to consider implementing complementary management measures. The US lobster processing operations rely heavily on smaller 3 ¼" lobster from Canada during May and June, when there are not yet enough landings from the US fishery to maintain operations. Additionally, if Canada Department of Fisheries and Oceans and industry did choose to implement a complementary size limit, a January 1, 2025 timeline would not be achievable. The six-month delay would likely not have a significant biological impact on the GOM portion of the stock because the majority of the fishery does not ramp up until June and July.

3.0 Proposed Management Options

The following management options consider postponing the implementation of Section 3.1 and 3.2 of Addendum XXVII with the exception of the regulations prohibiting the issuance of 10% additional trap tags in Areas 1 and 3 above the trap limit or allocation.

When the Board takes final action on the addendum, there is the opportunity to select any measure within the range of options that went out for public comment, including combining options across issues.

Option A: Status Quo
This option would maintain the current implementation schedule for all Addendum XXVII management measures, including the January 1, 2025 minimum gauge size increase to 3 $^{5}/_{16}$".

Option B: Postpone Implementation of Addendum XXVII Measures Until July 1, 2025
Under this option, the implementation deadline for the biological measures (gauge and vent sizes, and v-notch definition) under Addendum XXVII would be postponed an additional six months.

The following management measures established in Section 3.1 of Addendum XXVII would be postponed to July 1, 2025:

- Standardize measures within GOM/GBK stock LCMAs to the most conservative measure where there are inconsistencies between state and federal regulations. This results in a maximum gauge size of 6-3/4" for state and federal permit holders, and a v-notch possession definition of $^{1}/_{8}$" with or without setal hairs for all permit holders in Outer Cape Cod (OCC).

The implementation deadline of January 1, 2025 would be maintained for the following measure established under Section 3.1 of Addendum XXVII:

- Implement regulations for LCMAs 1 and 3 to limit the issuance of trap tags to equal the harvester trap tag allocation. This means no surplus trap tags will be automatically issued to permit holders for these areas until trap losses occur and are documented.

This option would also postpone implementation of the biological management measures triggered under Section 3.2 of Addendum XXVII. The minimum size of 3 $^{5}/_{16}$" for lobsters in LCMA 1 would become effective July 1, 2025. The additional gauge and escape vent size changes for LCMA 1, 3 and OCC triggered under Addendum XXVII would be implemented by July 1 of the year for which they are scheduled.

Table 1 specifies the proposed schedule for implementation of each gauge and escape vent size measure if Option B is selected. Changes to measures are shown in bold text.

Table 1. Option B Proposed Implementation Schedule for Management Measures

Implementation of Management Measures Triggered Under Addendum XXVII, Section 3.2			
Area	**LCMA 1**	**LCMA 3**	**OCC**
Current Measures	Minimum gauge: 3 ¼" Maximum gauge: 5" Vent size: status quo	Minimum gauge: $3^{17}/_{32}$" Maximum gauge: 6 ¾" Vent size: status quo	Minimum gauge: $3\ ^{3}/_{8}$" Maximum gauge: 6 ¾" Vent size: status quo
July 1, 2025	**Minimum gauge size: $3\ ^{5}/_{16}$" (84 mm)**	*Status quo*	*Status quo*
July 1, 2027	**Minimum gauge size: $3\ ^{3}/_{8}$" (86 mm)**	*Status quo*	*Status quo*
July 1, 2028	**Vent size: 2 x $5\ ^{3}/_{4}$" rectangular; $2\ ^{5}/_{8}$" circular**	*Status quo*	*Status quo*
July 1, 2029	*Status quo*	**Maximum gauge size: 6 ½"**	**Maximum gauge size: 6 ½"**

4.0 Compliance

If the existing FMP is revised by approval of this Draft Addendum, the Board will designate dates by which states will be required to implement the provisions included in the addendum. A final implementation schedule will be identified based on the management tools chosen.

5.0 Recommendations for Actions in Federal Waters

The management of American lobster in the EEZ is the responsibility of the Secretary of Commerce through the National Marine Fisheries Service. If this Draft Addendum is approved, the Atlantic States Marine Fisheries Commission would recommend the federal government promulgate all necessary regulations to implement complementary measures to those approved in this addendum.

6.0 References

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

ASMFC. 2023. Addendum XXVII to Amendment 3 to the Interstate Fishery Management Plan for American Lobster.

Atlantic States Marine Fisheries Commission

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

MEMORANDUM

TO: **American Lobster Management Board**

FROM: **Caitlin Starks, Senior FMP Coordinator**

DATE: **October 8, 2024**

SUBJECT: **Public Comment on Draft Addendum XXXI to Amendment 3 to the American Lobster Fishery Management Plan**

The following pages represent a draft summary of all public comments received by ASMFC on American Lobster Draft Addendum XXXI as of 11:59 PM (EST) on October 6, 2024 (closing deadline).

Comment totals for the Draft Addendum are provided in the table below, followed by a summary of the webinar public hearing, and written comments sent by organizations and individuals. A total of 81 written comments were received. These included five letters from organizations, and the remainder from individual stakeholders.

One virtual public hearing was held. There were 26 members of the public in attendance at the hearing. Five public comments were provided during the public hearing. Attendees were polled about which option they support, given "Option A", "Option B", and "No Opinion" as options; the majority of responses (15/19) supported Option B.

The following tables are provided to give the Board an overview of the support for or opposition to the proposed action in Draft Addendum XXXI. Comments that did not specify a position on the Draft Addendum options are included in the written comments; many of these comments expressed opposition to any change to the minimum gauge size. Comments unrelated to this action are counted in a separate "other" category. Prevailing themes from the comments are highlighted below.

Table 1. Total Written Comments Submitted to ASMFC

Total Comments Received	
Organization Letters	5
Individual Comments	76
Total Written Comments	**81**

Table 2. Comments on Draft Addendum XXXI

Management Options	Public Hearing	Letters	Individual Comments	Total
Option A. Status Quo	2		2	**4**
Option B. Postpone Implementation	15	5	28	**48**
Oppose Gauge Change			42	**42**
Other			4	**4**

Rationales for Support of Option A. Status Quo

- Increasing the measure is a good conservation idea.
- The previous increase to the gauge size did not hurt the industry.
- Science not emotion should dictate the actions necessary to protect a healthy lobster population.
- Gulf of Maine warming and low recruitment rate rates indicate action should be taken.

Rationales for Support of Option B. Postpone implementation to July 1, 2025

- The minimum gauge size should change for Canada and the US at the same time, otherwise the gauge increase is useless.
- More time is needed to figure out the marketing side, the enforcement side, and to give fisherman a chance to plan for how this will affect their businesses.
- A delay will allow more data to be collected.

Other Comments

- The large majority of other comments expressed opposition to increasing the LCMA 1 minimum gauge size. A number of reasons for this view were given.
    - Harvesters are seeing more lobsters this year than ever, especially undersize lobsters ranging in size, and egg-bearing females.
    - It is not needed because the population is robust and harvest is sustainable.
    - Increasing the gauge will have significant negative economic impacts for harvesters.
    - Economic studies should be conducted to better understand impacts to the fishery.
- Lobster surveys are not capturing the trends the fishermen are seeing.
- There are better management options for maintaining a healthy stock than a gauge increase.
- There should be a zero-tolerance policy across all lobster zones for keeping v-notched lobsters.
- A bigger minimum vent size would filter most small lobsters out of traps. A mandatory ¾" mesh panel should be required in the bottom parlor sections of the traps to reduce claw damage.
- The Board should consider separate gauge sizes for males and females. The female gauge size could increase but the size for males could stay the same.
- Canada is still allowed to harvest large breeding lobsters.
- Lobsters are egging out at smaller sizes.
- The Addendum XXVII measures should be delayed indefinitely.
- Vent sizes do not need to change.
- Dealers will lose market shares to Canada.
- Gauge size changes should be made in smaller increments.
- The fleet gotten much smaller over the last three years, and pressure on the fishery has dropped considerably.
- Concern about fish predation on lobsters.
- The maximum gauge decrease for the Outer Cape Cod LCMA will cut the Cape Cod Lobster Management Area catch out of the market for large lobster.

American Lobster Draft Addendum XXXI Public Hearing

Webinar Hearing
September 23, 2024
26 Public Participants
19 Commissioners and State Staff

Commissioners & Proxies: Cheri Patterson (NH), Doug Grout (NH), Ray Kane (MA), Dan McKiernan (MA), Patrick Keliher (ME), Jason McNamee (RI), Marty Gary (NY), Allison Murphy (NOAA)

ASMFC Staff: Caitlin Starks

Hearing Overview

- Attendees were polled about which option they prefer
    - 19 of 26 public attendees responded to the poll
    - 15 (79%) supported Option B, postpone Addendum XXVII measures
    - 2 (11%) supported Option A, status quo
    - 2 (11%) voted "No Opinion"
- Five comments were provided with rationales for supporting Option B

Summary of Comments

Michael Polisson

- Supports Option B, but thinks Addendum XXVII should be indefinitely postponed because it is wrong.
- Does not believe Canada will cooperate to match the US gauge size. Last time the gauge increased in the US, Canada also increased but later lowered the size limit again.
- We do not understand why recruitment is declining.
- The Commission needs to consider the economic information not just stock information, and consider the economic disaster the gauge increase will cause.

Dustin Delano

- Supports Option B and will send in written comments later on behalf of the New England Fishery Stewardship Association.

Patrice McCarron, Maine Lobstermen's Association

- Supports Option B to allow Canada more time to consider complementary measures, and also to give the Commission time to review updated survey data and stock assessment.

Sam Pickard

- Supports Option B
- Does not understand why we are doing all of these addenda to fix previous one.
- The gauge increase will kill Maine and Massachusetts industries

Beth Casoni, Massachusetts Lobstermen's Association

- Supports Option B.
- Hopes the new stock assessment will come out and allow for reevaluating the gauge size.

American Lobster Addendum XXXI Public Hearing Attendance (Online)			
First Name	**Last Name**	**Email Address**	**State**
Dennis	Abbott	swamper199@GMAIL.COM	
Jeffrey	Bartlett	Jbartlettmlafish@gmail.com	Massachusetts
Matt	Bass	matthew.bass@mass.gov	Massachusetts
Samuel	Blatchley	sblatchley@ecklandblando.com	Massachusetts
Colleen	Bouffard	colleen.bouffard@ct.gov	Connecticut
Tessa	Browne	tessa@capeannlobstermen.com	Massachusetts
Scott	Bush	bushmans3a@hotmail.com	Connecticut
Chris	Cash	Christina.cash@maine.edu	Maine
Beth	Casoni (MLA)	beth.casoni@lobstermen.com	Massachusetts
Shawn	Costa	shawncosta@comcast.net	Massachusetts
David	Coyne	dbcoyno12@gmail.com	Massachusetts
Dustin	Delano	coo@fishermenstewardship.org	Maine
Paul	DiMare	pdimare@bstseafood.com	Massachusetts
Glen	Fernandes	graciejfishing@gmail.com	
Damon	Frampton	dtframpton@gmail.com	New Hampshire
Doug	GROUT	groutnhfish@gmail.com	New Hampshire
Marty	Gary	martin.gary@dec.ny.gov	
Raymond	Kane	ray@capecodfishermen.org	Massachusetts
Patrick	Keliher	patrick.keliher@maine.gov	Maine
Marianne	LaCroix	mlacroix@lobsterfrommaine.com	Maine
Kiera	Lawlor	kiera.lawlor@mass.gov	Massachusetts
Jason	Lemos	jasonjlemos@gmail.com	New Hampshire
John	Maniscalco	john.maniscalco@dec.ny.gov	New York
Patrice	McCarron	patrice@mainelobstermen.org	Maine
Dan	McKiernan	dan.mckiernan@mass.gov	
Jason	McNamee	jason.mcnamee@dem.ri.gov	
Nichola	Meserve	nichola.meserve@mass.gov	Massachusetts
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Cheri	Patterson	cheri.patterson@wildlife.nh.gov	
Samuel	Pickard	lobsterer.sp@gmail.com	
Michael	Polisson	mikepolisson@yahoo.com	Massachusetts
Tracy	Pugh	tracy.pugh@mass.gov	Massachusetts
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Chris	Scott	christopher.scott@dec.ny.gov	New York
Stephen	Smith	stephens_7@comcast.net	Massachusetts
Hank	Soule	hank@offshorelobster.org	New Hampshire
Renee	St. Amand	renee.st.amand@ct.gov	Connecticut
Kenneth	Stanvick	Kennethstanvick@comcast.net	
Justin	Susarchick	jsusarchick@maritimeaquarium.org	Connecticut
Corinne	Truesdale	corinne.truesdale@gmail.com	Rhode Island
Allison	murphy	allison.murphy@noaa.gov	
Erik	Anderson	andy42152@aol.com	New Hampshire

MAINE
Lobstermen's Association, Inc.
2 Storer St, Ste 203 * Kennebunk, ME 04043
207-967-4555 * 866-407-3770 * www.mainelobstermen.org

Atlantic States Marine Fisheries Commission
Caitlin Starks
1050 N Highland St, Suite 200 A-N
Arlington, VA 22201

Transmitted Via email

October 4, 2024

Dear Ms. Starks:

The Maine Lobstermen's Association (MLA) strongly supports the Atlantic States Marine Fisheries Commission's (ASMFC) draft Addendum XXXI to postpone implementation of the scheduled gauge increase for Lobster Management Area 1 (LMA 1).

The MLA remains opposed to increasing the LMA 1 gauge because the unintended consequences of the measure have yet to be adequately addressed. The MLA has outlined these concerns in detail through previous comments, letters, and testimony at Lobster Board meetings. The MLA supports delaying the gauge increase until July 2025 to provide more time to address these concerns.

Specifically, delaying the gauge increase will provide additional time for Canada to consider implementing complimentary measures. This would address many of the industry's concerns by minimizing impacts on the supply chain and market, addressing the issue of fairness between U.S. and Canadian lobstermen who share the waters of the Gray Zone, and enhancing the efficacy of this conservation measure.

Importantly, a delay would also provide time for both the Commission and the lobster industry to review the latest survey data used to assess the health of the lobster stock and the preliminary results on the Benchmark lobster stock assessment.

MLA urges you to adopt Addendum XXXI to postpone implementation of the LMA 1 gauge increase until July 2025.

Thank you for your consideration.

Patrice McCarron

Patrice McCarron
Acting Chief Operating Officer

Maine Lobstering Union

Local 207

150 Bar Harbor Rd, Trenton, ME 04506

October 3, 2024

Please accept these comments from the Maine Lobstering Union for Addendum XXXI to the Interstate Fishery Management Plan for American Lobster. We support the postponement to July 1, 2025. We still question if this gauge change and subsequent vent changes are necessary. At the August meeting in Virginia, we requested the TC review MDMR licensing data. Maine has 250 less lobstermen in 2024, and with mandatory reporting, we can identify latent license holders and calculate a conservation equivalency. Maine has made substantial investments in our sampling protocols to reflect both climate change and changes in the migratory patterns we are experiencing in the Gulf of Maine. We request both licensing and new data collected to be reviewed prior to implementing any gauge increase.

The Mitchell Provision is needed to stabilize the market between Canada and Maine.

"The Addendum recommends to NOAA Fisheries that the Mitchell Provision of the Magnuson-Stevens Act apply to foreign imports of whole live or processed lobster, meaning the smallest minimum size for foreign imports would match the smallest minimum size in effect for the US industry. The current smallest LCMA minimum gauge size in effect is 3¼ inches, and when the LCMA 1 gauge size increases, this will change to 3 5/16 inches. Foreign imports smaller than the new minimum gauge size would be prohibited. These size restrictions do not apply to lobsters traveling in-bond through the US."

We feel strongly that "or processed" must be added to the Mitchell Provision. The one pound lobster is a very popular size in the restaurant industry, removing that size product will drive sales to Canada instead of the USA. We have already given our export market to Canada, with the USA tariffs, foreign markets get filled with Maine lobster out of Canada. We as fishermen need to know the gauge increase is needed, and more importantly that the harm it would do the industry does not out weight the benefits.

Sincerely,

Maine Lobstering Union Executive Board

If you have any questions please call, text or email: 207-240-0556, volsen@district4.net

Massachusetts Lobstermen's Association

8 Otis Place ~ Scituate, MA 02066
781.545.6984

September 27, 2024

Caitlin Starks
Atlantic States Marine Fisheries Commission
Suite 200 A-N
Arlington, VA 22201

Email: comments@asmfc.org

RE: Lobster Draft Addendum XXXI

Dear Ms. Starks,

The Massachusetts Lobstermen's Association (MLA) submits this letter of SUPPORT on behalf of its' ~1800 members to the Atlantic States Marine Fisheries Commission (ASMFC) on the Draft Addendum XXXI (Draft Add. XXXI) to delay the implementation of the biological measure in Addendum XXVII (Add. XXVII) to the Amendment 3 to the American Lobster Fishery Management Plan until July 1, 2025.

The further delay of these biological changes in Draft Add. XXXI to the size limits and V-notch definitions in Lobster Conservation Management Areas (LCMAs) 1 (Gulf of Maine), 3 (offshore federal waters) and Outer Cape Cod (OCC) will afford the efforts of the Canadian government to consider and implement complimentary biological measures to be in-line with the U.S.

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 membership is comprised of fishermen from New Jersey to Canada and encompasses a wide variety of gear types from fixed gear and mobile gear alike. The MLA continues to work conscientiously through the management process with the Massachusetts Division of Marine Fisheries, Atlantic States Marine Fisheries, Atlantic Large Whale Take Reduction Team, and the New England Fisheries Management Council to ensure the continued sustainability and profitability of the resources in which our commercial fishermen are engaged in.

The MLA strongly encourages the ASMFC to permanently delay the implementation of these biological measures, even if Canada does not come in-line with the U.S. measures and wait until after the new Stock Assessment has been completed. If there are concessions for the Canadians, then there MUST be concessions for the U.S. fishers. The lobster industry continues to do everything asked of them to protect the resource and now more than ever, should be afforded management based on the most current data sets.

Thank you for your thoughtful deliberation and consideration of our comments.

Sincerely,

Beth Casoni

MLA, Executive Director

From: Curt Brown
To: Comments
Subject: [External] Lobster Draft Addendum XXXI
Date: Sunday, October 6, 2024 2:46:10 PM

Ready Seafood, a Maine based lobster company, supports Addendum XXXI, or the extension of a pause on a gauge increase until July 1, 2025.

While we support Addendum XXXI, this pause is much shorter than what we supported in our comments at the ASMFC meeting in April, 2024. Given the proactive nature of Addendum XXVII, the overall health of the resource in Maine, the recent positive settlement numbers in Maine, and the drastic negative economic consequences a gauge increase will have on Maine's lobster industry, a six-month delay is simply too short to sort all this out.

Unfortunately, the lack of flexibility around a longer pause was driven by two states, New Hampshire and Massachusetts, whose combined landings pale in comparison to Maine. These two states expressed concern around protecting the lobster resource as the reason for shortening the delay. We find this concern does not pass the straight face test. For generations, both New Hampshire and Massachusetts kept oversized and v-notched lobsters that were thrown back in Maine. *It will still be legal to land v-notched lobsters in these two states under Addendum XXVII.*

Their current concern about protecting the lobster resource is laughable given the fact that it will still be legal for lobsters v-notched in Maine to be harvested as soon as they crawl south of Maine waters. These v-notched lobsters are proven breeders, regardless of the size of the notch in their tail. The only purpose of a gauge increase is to increase egg production. For these two states to push a gauge increase, with all it's catastrophic economic consequences, while continuing to allow proven breeders to be harvested is a masterclass in hypocrisy. Maine's coastal communities will suffer as a result.

To summarize, we grudgingly support Addendum XXXI, but we are disappointed that the pause decided on was only six months. There are very sound biological reasons to extend this pause longer to collect additional data and avert dire economic consequences for the State of Maine.

Ready Seafood
1016 Portland Rd.
Saco, Me. 04072

Curt Brown / *Marine Biologist*
Ready Seafood Co.
1016 Portland Rd. Saco, ME 04072
Office: (207) 352-5565
Cell: (207) 653-7354

New England Fishermen's Stewardship Association
500 Southborough Dr. Suite 204
South Portland, ME 04106

October 4, 2024

Atlantic States Marine Fisheries Commission
Caitlin Starks, Senior FMP Coordinator
1050 N Highland St, Suite 200 A-N
Arlington, VA 22201

Dear Commissioner,

On behalf of the New England Fishermen's Stewardship Association (NEFSA), I am writing in support of Addendum XXXI to Amendment 3 to the Interstate Fishery Management Plan for American Lobster. The NEFSA Board of Directors voted unanimously to support Addendum XXXI which would postpone the implementation of Addendum XXVII gauge and escape vent size changes to July 1, 2025.

Representing thousands of New England fishermen, dealers, businesses, and consumers, the New England Fishermen's Stewardship Association is the fastest growing fishing advocacy platform in New England. Established in May 2023 and guided by fishermen at the helm, NEFSA is rooted in Maine and has a board of directors comprising of fishermen from all over New England. Our mission statement reads:

> "NEFSA is an alliance of the wild harvesters of the waters off of New England, dedicated to educating the public about how best to manage our seafood resources through sound science and best practices at conservation used by fishermen, with a view toward economic well-being, ecosystem sustainability and US food security."

As you're aware, reaching the trigger within Addendum XXVII caught everyone by surprise, including regulators. NEFSA supports the further postponement of implementing a gauge change to July 1, 2025 but still opposes any such change in general. NEFSA is extremely concerned that a gauge change will have severe market implications across the supply chain and will ultimately lead to the elimination of many target customers across the world.

With the extra time, NEFSA hopes more conversation around the market situation will help prepare for the possible devastating consequences to a more limited supply of lobster and to the loss of access to the "chicken" market. The extra time will also allow harvesters to brace themselves for a decline in catch and severe loss of income which will result from a gauge increase of such magnitude. In previous comments, NEFSA suggested increases of 1/32, like the previous gauge change of 1989, rather than a major increase of 1/16—if there MUST be any increase at all. The lobster fishery is a very volatile industry and expenses are at an all time high. If the projected 10%(+/-) decrease in catch is greater than expected, it will result in harvesters and dealers going out of business.

NEFSA also hopes that with the extra time, more data will become available, especially as we approach the 2025 stock assessment. While a decline in the stock assessment is forecasted, we believe it will not be as steep as the indices used in the trigger index of Addendum XXVII. Fishermen are still reporting a high amount of juvenile lobsters in their traps, despite a much cooler 2024 bottom temperature.

Fishermen and dealers alike would have preferred to have a conversation around other resiliency options. Surely there are multiple ways to achieve an increase in egg production without effecting the market so severely by eliminating the “chicken” size lobster.

NEFSA also finds it important to note that Addendum XXVII was created to be a proactive measure with the goal of stabilizing the high lobster population experienced over the last several years. Fishermen have been riding the wave of high landings for over a decade and are now experiencing more normal catch rates. No one anticipated the fishery would land over 100 million pounds year after year throughout the future. The question posed by both harvesters and dealers still remains, is increasing egg production by increasing the minimum gauge size worth the major market implications and short term financial hardships that could lead to folks going out of business?

While we remain opposed to the gauge increase, NEFSA appreciates and fully supports the commissions willingness to create Addendum XXXI with the intent of postponing the minimum gauge increase until July 1, 2025. Despite our occasional policy disagreements, harvesters and regulators do have one thing in common. We all strive to maintain a robust lobster stock and healthy fishery to be passed on to future generations.

Sincerely,

Dustin W. Delano
Chief Operating Officer
New England Fishermen Stewardship Association

Washington Office
1222 Longworth House Office Building
Washington, D.C. 20515
Phone: (202) 225-6306
Fax: (202) 225-2943

www.golden.house.gov

Committee on Armed Services

Committee on Small Business

Jared Golden
Congress of the United States
2nd District of Maine

October 8, 2024

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

Dear Director Beal and Commissioners,

I am writing to you again requesting that the Atlantic States Marine Fisheries Commission (ASMFC) and the American Lobster Board delay the implementation of the Lobster Management Area 1 gauge increase, Addendum XXVII, currently scheduled to begin in January 2025. While I believe that the proposal as written in Addendum XXXI to delay a gauge increase until July 1, 2025, is the better of the two options presented by the ASMFC, I encourage the Commission to proceed solely based on the full consideration of all data sources and a commitment from Canadian regulators to enhance their conservation measures.

As you know, the intent of Addendum XXVII is to mitigate declining stocks of American lobster proactively, a goal shared by harvesters, dealers, and the ASFMC. In my conversations with lobstermen and dealers, it has always been clear that their top concerns are the sustainability of the stock and the ability for it to be harvested by future generations. That is why, as I previously stated in my letter to you on April 29, 2024, I am concerned that the data used to arrive at the trigger index for a gauge increase is overly precautionary and has limitations that do not entirely reflect the current status of the stock.

It is my hope that the ASFMC will ultimately support a long-term pause of the amendment to allow additional time for the technical committee to consider the stock's health more carefully while considering other resiliency measures and incorporating thorough scientific data and objective analysis acceptable to regulators and members of the commercial lobster fishery. Other data that has not been considered or will become available include mandatory harvester reporting, the conservation equivalent from a reduction of overall lobster licenses, and the 2025 lobster stock assessment. These efforts should coincide with robust engagement with your Canadian counterparts to address the regulatory disparity between American and Canadian lobstermen and create a level playing field for all harvesters in the Gulf of Maine.

6 State Street, Suite 101
Bangor, ME 04101
Phone: (207) 249-7400

7 Hatch Drive, Suite 230
Caribou, ME 04736
Phone: (207) 492-6009

179 Lisbon Street
Lewiston, ME 04240
Phone: (207) 241-6767

Without a longer-term pause, devastating economic consequences are on the horizon for Maine's lobster industry. For the latest year data is available, it is estimated that if Addendum XXVII goes into effect, it would decrease the value of lobster landings, resulting in a loss of over 680 jobs and $59.6 million to Maine's economy. I am deeply concerned about how this economic impact would impact the industry and the hundreds of communities in Maine that depend on a viable lobster fishery. Few involved in the fishery or these communities are adequately prepared for the economic disruption that would likely occur.

These decisions must always include those with significant experience, the harvesters themselves. I trust that you, as the regulators, will also consider and incorporate their invaluable input in matters before you.

Sincerely,

Jared F. Golden
Member of Congress

From: alyssa lapointe
To: Comments
Subject: [External] No increase
Date: Saturday, October 5, 2024 6:49:23 AM

Sent from my iPhone
As a Maine lobstermen I really feel this would destroy our industry. Please stop trying to change a great fishery

From: Austin Houghton
To: Comments
Subject: [External]
Date: Saturday, October 5, 2024 10:17:57 AM

There is no reason to change the measure i have seen countless small lobsters everyday Eggers an so many v-knotchs. It's frustrating seeing all these lobsters you can't take throwing them back an there's tons of them now you want to change the measure just don't make any sense you don't have a clue

From: Bill Furtado
To: Comments
Subject: [External] Lobster increase gauge
Date: Saturday, October 5, 2024 6:24:16 PM

Sent from my iPhone there are so many small lobsters we are seeing and so many oversized females I don't think that you need to raise the gauge. We catch a big lobster now bigger than the gauge. It doesn't make sense. If you have any questions you can call me 617-688-7026 thank you.

From: Billy Bob Faulkingham
To: Comments
Subject: [External] Lobster Draft Addendum 31
Date: Thursday, September 26, 2024 9:41:08 PM

Please delay implementation of addendum 27. This came on way too quickly. There are serious problems with implementing this so soon. We need to make agreements with Canada as well as see further scientific evidence before we move forward with this plan. Thank you.
Best Regards,
Representative Billy Bob Faulkingham

From: Brian Billings
To: Comments
Subject: [External] Proposed gauge change
Date: Friday, October 4, 2024 1:29:37 PM

ASMFC board,

I believe extending the lobster gauge change to July would allow another year of data to be collected, and also minimize gauge impact to lobstermen by coinciding with the yearly shed.

Also, I would strongly recommend (if possible) to first change the vent size rather than the gauge. From my experience as a fisherman, the increase in vent size would allow for better flow of lobsters out of our traps. This would reduce handling of smaller lobsters and lobster vs. lobster conflicts inside the traps while on bottom. All of that would, in theory, reduce damage and death rates to lobsters over all and allow for higher breading rates.

By reducing efficiency of our traps with a larger vent, more legal and sub-legal lobsters would escape without being hauled to the surface and culled. I feel this would have a far better impact for our lobster population.

Thank you for your time and consideration,

BrianBillings
Zone C lobsterman, MLA board member
Sent from my iPhone

From: Brian Moody
To: Comments
Subject: [External] Measure increase
Date: Saturday, October 5, 2024 5:57:54 PM

Sent from my iPhone
First thing thank you for your time I hope you give it great consideration into rethinking the measure increase there is absolutely no reason for this change yes your “trigger” was met but did you ever consider maybe with our older population in the industry that maybe they just are not working as hard to catch the lobsters there is plenty of juvenile lobsters on the bottom you just are not looking for them in the right places

From: Bruce Fernald
To: Comments
Subject: [External] Gauge increase
Date: Friday, October 4, 2024 2:22:34 PM

I am a lobster fisherman of 50 years fishing out of Little Cranberry Island,Me. For years we have seen over 25 years of low catches.The last fifteen or so years have been more than anyone could have imagined compared to the past.The lobsters I see in my traps these days are showing nothing but a healthy industry.The 2 to 3# female lobs egged out and never been caught before are everywhere that I fish.The small ones with an1 1/2" to 2" carapace are everywhere some so small they can get through the 11/4" wire meshes.Lobsters under the minimum size are egging out more every year.Why that is is unknown but it's adding to the egg production.The one thing that I worry about is food for the lobster larvae when there on the surface.If that is proven to be fine the industry will be fine.

If the market can adjust and people can still afford to have a lobster then fine.But from what I hear and read that can be a major issue.I think we as fisherman can deal with the increase as long as the market doesn't get messed up.I don't have a good feeling about that!

Bruce Fernald

Little Cranberry Island,Me.

Sent from my iPhone

From: Buddy Simmons
To: Comments
Subject: [External]
Date: Sunday, October 6, 2024 7:45:35 PM

I'm a harvester in favor of delaying the gauge increase. We don't need to increase the gauge period.

Sent from Yahoo Mail for iPhone

From: Caleb Soohey
To: Comments
Subject: [External] Lobster measure
Date: Saturday, October 5, 2024 7:49:15 PM

I do not believe that we need an increase in the measure I haul 150 a day and I throw at least 400 pounds of shorts over a day

From: Cassie Pinkham
To: Comments
Subject: [External] Lobster draft addendum XXXI
Date: Friday, October 4, 2024 6:48:30 PM

I am a lobster fisherman from Friendship Maine. I do not think there is a need for a measure increase. The amount of small lobsters that have shown up in the last 2 years is more than I have ever seen in my entire fishing career. The data you have accumulated showing no juvenile lobsters is completely false. Going forward with the measure increase is only going to hurt the lobster industry if not put us all under financially. More data needs to be collected and gone over before jumping to something that will crimple the entire industry.

From: Chris Chadwick
To: Comments
Subject: [External] Lobster measure increase
Date: Saturday, October 5, 2024 8:13:06 AM

I’m 43 and currently fish 800 traps ,have been in the lobster industry since I was 10 when I got my first license, I do not see any reason to adjust the measure it is a thriving, sustainable, resource

From: Colin Piper
To: Comments
Subject: [External] Lobster draft Addendum XXXI
Date: Saturday, October 5, 2024 4:50:08 PM

Dear Atlantic States Marine Fisheries Commission,

My name is Colin Piper I am a first generation lobsterman out of Hancock, ME. I started fishing when was 8 years and have earned respect on the water. It has gone from a summer job to my full time job that I take much pride in. I have worked hard to get to where I am today and still have a lot to learn. I have been fishing for 12 years now and have only seen an increase of undersized lobsters every year. The undersized stock is very strong and health. We see more every year and in more places. We already show great efforts in our management for lobsters. Between the our minimum and maximum gauge increase now and the v-notch. It allows us to harvest only the best product that we catch. I believe that the measure increase would not help us in anyway at all. I believe that it would hurt the income of all the fisherman up and down the coast with no benefit for the future. When there are other places that such as Canada that can harvest some of the best breeders. That is what I believe can hurt the population. When the best breeders with the best quality's are not being protected in surrounding areas it could show signs of decreased catch of legal size lobsters. However I don't see a decline in lobsters around my area. There are more and more every year of short and v-notch lobsters that we protected for years to come. I believe that this Addendum should be further postponed/ canceled until more research is collected. This has moved at a very high pace for any good research to be collected in most areas. I also believe basing the trigger point off the record high year is hard to understand. The landings found new record highs every year. And to now base a trigger point off a record that wasn't even expected doesn't seem right. I hope the commission can consider my thoughts on this topic and the effects that it will have on the lobster industry in a whole.

Thank you,
Colin Piper

From: Shawn Costa <shawncosta@comcast.net>
Sent: Monday, September 23, 2024 5:44 PM
To: G2W2 <G2W2@asmfc.org>
Cc: fvsusanlynn@comcast.net
Subject: [External] Public Hearing on Lobster Draft Addendum -Comment

Good day,
With the current catch and market conditions, I propose a delay in any changes to the current lobsters regulations for at least 3 years.
Kind Regards,

F/V Rhumbline
Shawn Costa
1-561-213-6950 cell

From: stephanie ames
To: Comments
Subject: [External] Lobster draft addendum 31
Date: Saturday, October 5, 2024 10:31:02 AM

Dear ASMFC,
I am a 4th generation lobster fisherman from matinicus island Maine. I do not support the measure increase, because there is no need for one. We have been compliant with all the changes over the last 20 years. It is time for us to stand up. The amount of short lobsters is plentiful. Our fishery is very sustainable.

Thank you
David Ames II

Sent from Yahoo Mail for iPhone

From: David Merchant
To: Comments
Subject: [External] Lobster draft addendum
Date: Saturday, October 5, 2024 6:50:15 PM

In regards to the lobster measure increases and vent size change it is not necessary at this time. There are more small lobsters than I have ever seen. Lobster catch fluctuates from year to year so to base a decision that detrimental to the industry off a single years stalk assessment is insanity. Beyond that our vent size already is larger than the proposed measure size so it should be irrelevant to start with. The whole proposal should be thrown out especially without proper longevity to support further data collected.
David Merchant, F/V Roll With It
Sent from my iPhone

From: David Rich
To: Comments
Subject: [External] Measure size
Date: Saturday, October 5, 2024 9:09:21 PM

This measure size increase is crazy, I have never seen as many short undersized lobsters as i have the last few years. Young and count on 7 or 8 a trap some with twice that. The ratio to keepers is way off.

From: Doug.Laura McLennan
To: Comments
Subject: [External] Lobster measure increase delay
Date: Friday, October 4, 2024 3:09:28 PM

I would like to speak out in support of the delay in the American Lobster gauge for Maine. There are many reasons for this delay. The main reason is getting time to put the entire proposition to rest. This law change will totally upend the industry. Unintended problems have arisen with the relation with the Canadien market that were not thought out before the Maine Commissioner of Marine Resources presented this idea to ASMFC. There was never an economic study done to the impact on the industry harvesters, and other participants in the industry. Maine has had it current measure of 3 1/4 since 1989. This measure size has proven to work well. Trying to produce more egg bearing lobsters on the small side of the measure is not a scientific solution. The larger lobsters are what need to be protected. We have area 3 boats with different size restrictions on the larger measure, and also they take lobsters than Maine fishermen v notch for protection of egg bearers , to market, fishing outside the area 1 line. There needs to be an industry standard on the protection of the large female egg bearers, not the small juvenile lobsters, that are not proven breeders.This was not well thought out, and the actual intention should be questioned, as it looks as if it is to put un necessary burdens on a already heavy regulated industry. The increase was 100% voted down at all Maine Lobster Zone Councils last fall. Passing a law that is so rejected by industry would be a travesty in fishery regulation. Thank You for listening

Respectively Douglas McLennan
Zone D district 7 zone Council

From: Dustin Leighton
To: Comments
Subject: [External] Lobster measure
Date: Saturday, October 5, 2024 9:26:02 AM

In my opinion increasing our minimum size and decreasing the maximum size on our measure is absolutely insane. I throw back several hundred pounds of under sized lobster a day. Not to mention the amount of nice healthy oversized male and females daily this time of year. Our lobster population is strong and does not need to be messed with…. I'm willing to photograph what I see everyday.
Sent from my iPhone

From: Elijah Brice
To: Comments
Subject: [External] Support for Postponing XXVII
Date: Saturday, October 5, 2024 9:46:53 PM

Addendum 27 is unnecessary and will have detrimental effects to our fishing industry. We see large numbers of juvenile lobsters and release many NEW, freshly notched, egg bearing female lobsters every day. A gauge change will not increase the lobster population, but simply reduce the amount we can legally keep in our catch. Would you like a 10-20% reduction in your income?

We need third party verification for proof of low juvenile lobster stock, more research on any potential benefits from this change, and a thorough analysis of how useless this would be on the international border with Canada if they don't adopt the same gauge size as us.

Our release of oversized lobsters is already a futile effort with Canadians being able to keep them just over the border. It will be the same with undersized lobsters. We will not see an average lobster size increase like other areas of New England. We will release our new undersize lobsters, they'll migrate over to Canada in the winter, then get caught and never return. The effort would be useless.

- Elijah Brice

Zone A Maine Lobsterman License #7248
Eastport, ME

From: Eric Smith
To: Comments
Subject: [External] Lobster Draft Addendum XXXI
Date: Saturday, October 5, 2024 4:33:11 PM

To whom it may concern,

The proposed measure increase for the lobster fishery is a reaction to a perceived problem that doesn't exist.
The inshore and offshore Maine lobster population has a healthy stock of juveniles, plentiful eggers/v-notched, and oversized lobsters. I believe these stocks have moved/shifted over time due to warming waters. I still see more juveniles and egged lobster in a day now than I ever have.

I believe that research through sea sampling programs should be expanded and maybe modified, before putting additional pressure on hardworking business owners and families.

The proposed measure increase is unnecessary, and the increase in vent size planned for 2028 is more unecessary than the former. Our vents are already oversized enough, allowing lobsters that are easily 3/8 of an inch above minimum legal carapace length to escape. Vents currently in use would still be adequate with a larger measure.

I hope that you will take input from all stakeholders in the fishery seriously. Often times we feel we're just swept under the rug, as if our thoughts don't matter. We are your best and largest data source. Thousands of sets of eyes on the resource and taking part in catch reporting programs. Each and every one of us has a very serious interest in the lobster stocks continued abundance.

Thank you for your time,

Eric Smith
F/V Nuclear Fishin'

From: Eric & Kate-Lyn Knight
To: Comments
Subject: [External] Lobster Draft Addendum 31
Date: Saturday, October 5, 2024 6:59:24 PM

Good Morning,

> Today is the last day to make public comments and have the fisherman's voice heard. I've participated in many of these responses; from whales, to offshore wind and any other threat our industry has faced. I never thought I would have to stand up to the ASMFC and beg to not have a measure increase. This would be catastrophic to our coastline from the top to bottom. We've had a self regulating business long before any government was crushing us with regulations.
>
> Most lobstermen are commercial fishermen - they have diversified over the years to supplement income when lobstering is slow. Unfortunately it has become increasingly harder to diversify due to cost and access to other fisheries. A measure increase is a sure way to handicap the lobstermen once again. Lobsters have tails, they move and migrate and certainly do not crawl all at once. These animals are cyclical, some years are just stronger than others. If we lose the current year class of lobsters due to a measure increase we are going to have a 30% reduction in catch. That is just not feasible, we will not recover. A lot of us younger fishermen have 100s of thousands invested. I have 3 young children at home under the age of six to feed and provide for. They depend on me catching Lobsters, I don't have a state scallop license I can make up 30% loss of income.
>
> I am 36 years old this year, I started lobstering at the age of 12. I fish year round offshore, I've seen an increase in catch for the past 10 years. A lot more guys are staying offshore year round, we are feeding and farming the lobsters in 30-50fa. In my opinion the inshore lobster sediment is different than the offshore sediment 3-15miles from shoreline. Before we ruin a fishery, we need more research done where guys are fishing, I've never seen a ventless trawl survey remotely close to where I fish. Last fall in November and December we saw a huge increase in juvenile lobsters 2-3 yrs out from being a counter lobster.
>
> In closing I would like you to consider the impact this increase in measure will have on our State economy. Maine is full of, "mom and pop" small businesses that rely on our lobster fishery. The increase in measure will have a negative impact for our State. As a Mainer, a fisherman, a husband, a father I ask you NOT to move forward with addendum 31!
>
> Thank You,
> Eric Knight
> F/V Ivy Jean
> Cape Elizabeth, ME

From: Gary Libby
To: Comments
Subject: [External] Lobster gauge increase
Date: Friday, September 20, 2024 4:21:25 PM

I'm a lobster fisherman from Maine. I am writing in opposition to the lobster gauge increase. I don't think it's necessary from what I have seen for small lobster in my traps this year. There's a big problem with the different sizes of lobster between Canada and the United States, it will cause hardship for fishermen and dealers. The fisherman will have a loss of income. Dealers will lose market shares to Canada that be more hardship for them and fisherman. If ASMFC continues with this fisherman and dealers can and will lose their businesses. I ask you reconsider the corse of action for the sake of the hole lobster industry.

Thank you for your consideration
Fisherman Gary Libby of Port Clyde Maine.

From: Erik HANSEN <erikhansen1214@gmail.com>
Sent: Thursday, October 3, 2024 11:10 AM
To: Comments
Subject: [External]

I would really like to explain that this measure increase will not help Maine lobstermen what so ever. Our lobsters will be coaght in Canada instead. We are under alot of preasure with expenses and regulations. The lobster industry is doing just fine as far as I can see. Been lobstering my entire life and the amount of under size lobster is the most I've seen in my lifetime. I'm going on 40 years of it. This really needs more thinking about what's right for our fisheries. A measure increase is not what is needed. Thank you Erik Hansen

From: Herman Coombs
To: Comments
Subject: [External] Measure increase delay
Date: Saturday, October 5, 2024 6:26:46 AM

It's just doesn't seem right to only use one years worth of data to increase the measure. Three or fours years would be more accurate because things go in cycles. Lobster settlement has gone up the very next year but the process has already been started and there was no contingency plan for this. Once taken away it will never go back. Too bad government can't keeps their hands off a very productive fishery.
Herman Coombs
F/V Jocelyne K
Orrs Island Me

From: Isaac Gates
To: Comments
Subject: [External] Lobster Draft Addendum 31
Date: Saturday, October 5, 2024 8:33:19 PM

Hello, I'm a Maine commercial lobsterman. I hold an area 1 American lobster permit as well. I have 10 years full time on the water, summers and any non school day before that since I can remember. I have the experience and knowledge about this subject. There is no need for a measure increase. I'm out there year round and see an abundance of short lobsters male and female. I fish depths from 15 fathom to 100 fathom. There is an abundance of seeders, of all sizes. There is not a shortage of lobsters. None what so ever. It's about finding the keepers in the amount of shorts, eggers, or v notches and oversize. And furthermore if we get measure increase we should be given that amount on the other side of the measure as well. Other states allow it. I fish all the way to the area 1 and area 3 border on the 600 line those same lobsters I throw back that are a 16th of an inch to big can be kept by area 3 boats. Measure increase will do nothing but make our living harder then it needs to be due to reporting and whale regulations give the fishermen a break. If it's about what people want to see on the lobster market then give us the amount on the other end of the measure as well. If you want to see more lobsters let there be a commercial striper fishery and increase the slot size. They are one of lobsters biggest predators. Don't shrink what we can keep along with everything else that has been put into place. This industry is has proven itself sustainable for many years. Leave it alone. It's worked. Please consider my comment.

From: James Sturks
To: Comments
Subject: [External] Measure increase
Date: Saturday, October 5, 2024 6:33:53 PM

I think it's crazy that you feel the need to change something that has worked for many years. What's a measure change going to do except put hard working fisherman out of business! Please consider the lives that you're going to put in hardship over something that doesn't need to be changed! I have a family I support and I can tell you that this measure increase is going to affect us a lot! Please don't do it!

Sent from Yahoo Mail for iPhone

From: Jason Joyce
To: Comments
Subject: [External] Support for Addendum 31
Date: Friday, October 4, 2024 5:42:04 PM

Dear Commissioners,

As a town Selectman on Swan's Island Maine I implore you to support Addendum 31 and thank you for the initial delay from implementation. The short term pain caused by this increase in measure would have hurt our coastal fishing community so much.
Thinking ahead I also ask you to consider the negative effects of the increase in vent and guage size in July of 2025 and reconsider implementing the small guage increase from Addendum 27.

Thank you,

Capt. Jason Joyce
Swan's Island Selectman
20 Grindle Road
Swan's Island, ME. 04685
207-479-6490

From: Jim Kimbrell
To: Comments
Subject: [External] Lobster measure
Date: Tuesday, September 24, 2024 4:31:02 PM

Hello
To get right to the point, I am in favor of increasing the lobster measure.
I was lobstering many years ago when they increased the measure. At that time there were people against the increase. The change in the measure didn't hurt anyone.
This change will not hurt anyone either. There is a lot of effort being made to catch as much as possible. It might be a record amount of effort to catch as much as you can. Increasing the measure is a good conservation idea.
Change the measure.
Jim Kimbrell
Lamoine, Maine
04605

..

Sent from my iPad

From: jimtitone@aol.com
To: Comments
Subject: [External] Lobster Amendment XXXI
Date: Sunday, October 6, 2024 9:33:53 PM

Ladies and Gentlemen. The lobster gauge increase as proposed under Amendment 27, must be postponed indefinitely. Instead of collecting a second year of data regarding juvenile lobster settlement to corroborate the single year decrease trigger, the American Lobster Board executed a knee jerk reaction in implementing the gauge increase. According to the latest settlement index data published in the August 2024 edition of the Commercial Fisheries News, "All Maine sites saw an increase in settlement - most notably for the northeastern regions, reaching numbers similar to levels last seen in the mid 2000's. Most notable has been the reversal in settlement patterns in Casco Bay. Based on these latest improvements in juvenile lobster settlement, the proposed lobster gauge increase must be postponed indefinitely.

Sincerely,
Jim Titone
F/V Fly Girls
Seabrook, NH

From: John Berglund
To: Comments
Subject: [External] Lobster Draft Addendum 31
Date: Saturday, October 5, 2024 9:16:38 PM

To Whom it May Concern,

My name is Quincy Berglund and I am a commercial lobsterman. I'd like to voice my strong support for postponing Addendum XXXI. I have been lobstering for 25 years and I believe we have done an excellent job of being responsible stewards of our aquaculture and have gone above and beyond in implementing conservation measures. This Addendum would be harmful to our careers, our industry, and our economy. I ask that you take this comment into consideration and postpone Addendum XXXI.

Thank you,

J. Quincy Berglund

Sent from my iPhone

From: John Drouin
To: Comments
Subject: [External] Lobster draft Addendum XXXI
Date: Saturday, October 5, 2024 5:33:05 PM

To ASMFC Lobster Board:

My name is John Drouin, a Cutler Maine lobsterman for 45 years.
I urge you to pass addendum 31 for a delay in the lobster gauge increase.

There are a number of reasons we need the delay. Such as to give Canada time to see what the ramifications are and how that will affect imports to the US.

We also need more time to re-examine the science for the reason of a gauge increase. Perhaps we will find that an increase isn't needed, or we examine the economic impact of a gauge increase....perhaps we do an increase with smaller increments instead of the planned 1/16" each time.
I think the board didn't have proper information when it originally considered the gauge increase based on the current science and monitoring programs that we have.

I can go into further details, but the bottom line is that the board needs to pass this addendum.
Thank you,
John Drouin.

From: John McCarthy
To: Comments
Subject: [External] Lobster Draft Addendum XXXI
Date: Friday, October 4, 2024 9:22:17 PM

I am writing to voice my support for a delay in the LMA 1 gauge increase until July 2025.

Thank you-John McCarthy

From: John Tripp
To: Comments
Subject: [External] Lobster Draft addendum XXXI
Date: Saturday, October 5, 2024 12:00:06 PM

I write to express the support in the delay of the gauge increase until later in the season. The longer we can wait to address issues and concerns over the market impacts with Canada the better. Also I am deeply concerned that implementing this in January would have drastic impacts on catch rates for spring fishermen. I think that if the gauge is going to increase it should coincide with the molt as best as possible.

I would also like to state I am against increasing the gauge as a conservation measure. I believe there are better alternatives to maintain a healthy stock. For one there should be a zero tolerance policy across all lobster zones for keeping V notched lobsters, as well as stronger enforcement for people to v notch egg bearing lobsters. Simple things like making it mandatory to carry an approved punching tool, not the one on the measure. A clean v notch from a good tool is a healthy way to ensure that the lobster can heal quickly.

I believe that simple measure should be taken to improve the handling of lobsters. A minimum vent size of 1 7/8 would filter most small lobsters out. Stop allowing fishermen to bring up loads of shorts just to have to fight them out of the traps or risk mortality from other lobster in the trap, or getting claws broken off from hanging out of traps wounding and potentially causing stress to the stock.

I believe a mandatory 3/4 mesh panel should be required in the bottom parlor sections of the traps. This “claw saver” panel does just that, protects lobsters from being wounded by claws hanging out of the bottoms of the traps and potentially dying.

Lastly I am concerned about the use of hide bait for lobstering. I am concerned that not enough research has been done on long term affects of consumption of hide bait in lobsters. I worry that the hairs left in the follicle could damage the digestive tract of the lobster. I don’t believe we should be putting land based products into the ocean to harvest lobster.

Thanks, John Tripp
F/V SkyAnnIra
Spruce Head, ME

From: Comments
To: Caitlin Starks
Subject: FW: [External] Lobster Draft Addendum XXXI
Date: Monday, September 23, 2024 9:47:45 AM

-----Original Message-----
From: Joseph McDonald <lobsterlovah@gmail.com>
Sent: Saturday, September 21, 2024 7:45 PM
To: Comments <comments@asmfc.org>
Subject: [External] Lobster Draft Addendum XXXI

To whom it may concern,
As a second generation lobster fisherman from Jonesport I'm calling for a pause on the measure increase. In the past several years I have seen more juvenile lobsters inside the 3 mile line than ever before. The economic impact that increasing the measure is going to cause will bankrupt half the industry. The state of Maine cannot afford to lose the revenue in taxes they won't receive anymore. The measure increase will affect all businesses across the state. The science is majorly flawed in data. We cannot increase the measure if there is no true problem.
Sincerely, Joseph McDonald

From: millertime3862@aol.com
To: Comments
Subject: [External] Lobster draft addendum 31
Date: Saturday, October 5, 2024 10:40:20 AM

Please reconsider the implementation of the measure increase. Your science and what the fishermen are seeing are entirely different. I believe you need more time to study what's happening and get a better understanding of it all. The economic impact of it will be devastating to many communities with immeasurable consequences. Take more time to find better solutions to what's happening. Thank you for your time.

Josh Miller
lobstermen, Vinalhaven ME.

From: Joshua Eaton
To: Comments
Subject: [External] Measure increase
Date: Saturday, October 5, 2024 6:36:29 AM

This is not the time for a measure increase. It will absolute cripple the lobster industry! Speaking for myself I won't be able to pay my crew or support my family. That's about 20 percent of the catch!!

From: justin sprague
To: Comments
Subject: [External]
Date: Saturday, October 5, 2024 6:59:39 AM

If this measure increase goes thru it will put me and the rest of the coast of Maine out of business were already barely making ends meet with taxes, cost of living and expenses more then doubling.

From: kandj2005 (null)
To: Comments
Subject: [External] What I see in my traps
Date: Saturday, October 5, 2024 6:17:43 AM

We have seen far more juvenile lobster in our traps in recent years than in the past. I feel what we are seeing checking traps 130-140 days throughout the year provides the most accurate representation of the lobster stock. I feel we have been told the stock is depleting for over 30 years now and we just keep seeing more and more lobsters of all classes each year. How can what surveys show and what we are seeing be so much different. More surveys and consideration needs to be put into such impactful decisions.
Thank you
Kevin Griffin
Maine zone F
Sent from my iPhone

From: Kyle Kennedy
To: Comments
Subject: [External] Measure increase
Date: Saturday, October 5, 2024 8:15:29 AM

ASMFC,

I am writing today to discuss the measure increase for the lobster industry. I am on the water every day and I personally believe the science has failed us once again. Lobsters are never in the same spot every year.

If you talked to fisherman they have to figure out what's going on in the present to catch them. If you went to the same spot and tried the same things year after year we would have gone out of business a long time ago. The lobsters are most definitely settling in to different areas. Ten years ago you would never see juvenile lobsters in 70-80 fathoms of water. Now it is very common to see lobsters extremely small come up in traps in deep water. They are so small it's hard to imagine how they didn't fall out of the trap when it was coming up.

Increasing the gauge size seems like another way to attack the fisherman. The catch for lobsters has dipped in the last couple years because of the slowdown in the economy. Fisherman couldn't afford to haul their traps as much as they'd like because of the low prices they were receiving. Increasing the measure is only going to intensify this and force many out of business. The United States used to be the land of the free and it seems like now it's a constant fight to just be able to go to work. That doesn't seem right when we know there's not a lack of juvenile lobsters. During Covid some of the surveys were not completed correctly and it looks like that's the data you are basing our decisions from.

The measure changes will be catastrophic to the lobster industry. We can't survive with less product. The prices we receive never change and I'm sure most have said the fisherman will receive more money for the ones they do catch in 2025. That will never be the case. The large dealers have already explained to us that we are going to lose the "chick" market once this goes through. That's the smallest legal lobster we catch and a very valuable market. Canada is going to monopolize on this decision.

Please remember if you follow through with this, you are the ones directly responsible for crippling the lobster industry and forcing many families into poverty. All of this is based on erroneous data.

Kyle Kennedy
F/V Katlyn Joan
207-598-7410

From: LWATKINSON@roadrunner.com
To: Comments
Subject: [External] Lobster Draft Addendum XXXI)
Date: Saturday, October 5, 2024 4:56:40 PM

To whom it concerns:

I do not support a guage increase for the state of Maine. I fish zone C9 which is just inside the 3 mile line. I have taken multiple sea samplers and on completion of the day, they agree that our area has a very healthy resource. I have discussed with them that I believe the ventless trap survey is being sampled in the wrong area and depth which is giving incorrect data. My recommendation would be to increase sea sample data and new and deeper ventless trap surveys. The juvenile lobsters have shifted from their traditional grounds 20 years ago.
Thank you
Lee Watkinson
4556 Lic #

From: Mack Kelley
To: Comments
Subject: [External] Don’t change the measure
Date: Saturday, October 5, 2024 3:32:23 PM

I’m just here to put in my opinion that the measure needs to be left alone. If there is anyone in doubt that there are plenty of juvenile lobster I gladly invite them to come on my boat and I’ll show them. Or they can even look at my tik tok series about my wooden and wire trap comparison. The amount of short lobster i catch in those 9 traps alone should speak volumes. Thank your for your consideration.
Sent from my iPhone

From: matt gilley
To: Comments
Subject: [External] Lobster draft addendum 31
Date: Sunday, October 6, 2024 9:52:17 PM

Good evening,
I am writing in support of delaying the gauge and v notch standards. The whole idea needs to be cancelled all together until there is complete data collected from off and onshore fisheries. The economic effect this will have on the Maine coast will be crippling at a time when many are already struggling. Please pass addendum 31 and delay the gauge increase indefinitely.
Thank you,
Matt Gilley
Harpswell Maine
F/V Catherine G

From: Comments
Sent: Tuesday, October 8, 2024 10:16 AM
To: Caitlin Starks
Subject: FW: [External]

From: Matthew Knowlton <knowlton.matt3@gmail.com>
Sent: Saturday, October 5, 2024 10:23 AM
To: Comments <comments@asmfc.org>
Subject: [External]

The lobster industry does not need a measure increase, baby lobsters are more plentiful than I have ever seen them. The fleet has shrunk a considerable amount over the last 3 years. That being said pressure on the fishery has dropped considerably. It is very apparent when working the water how very little gear there is compared to just 3 years ago. The lobster industry has always self regulated when needed, usually through our own regulation or fishermen dropping out of the industry. Please do not increase the measure, the few of us that are left are working on slimmer margins.
Please also consider the problem we are seeing with "squirts" taking over the bottom. These are the real problem the lobster industry is currently facing.

From: Merritt Wotton
To: Comments
Subject: [External] Lobster Draft Addendum 31
Date: Saturday, October 5, 2024 7:40:11 AM

Support of postponing Addendum 27 measures

My name is Merritt Wotton and I am a commercial lobsterman from New Harbor, Maine. I do not believe a measure increase is necessary at this time. This year I have by far seen more undersized lobsters than any other time in my life. The science is not matching up to what we see as harvesters.

I'd like to comment on the inaccurate data of the ventless trap study. My traps inshore fill up with short lobsters in the months of April and May every year before the ventless traps are deployed. The undersized lobsters then tend to burrow in to molt by June when that survey is started. Once that ventless survey is completed in August the first bulk of the summer shed has generally been harvested . Once these legal sized lobsters are harvested the undersized begin to trap again. September we see an abundance of undersized lobster filling traps again. I have routinely measured 20/30 undersized lobsters per trap this September. They are as abundant as ever.

This survey needs to be done during the time undersized lobsters are crawling in April, May, and September. I believe the science needs to reflect what harvesters are seeing or end of the day it is bad science. If we as harvesters saw a decline in undersized lobsters that would be one thing but the whole coast seems to be in agreement the stock looks extremely healthy.

Many of us are on the ocean 2,000-3,000 hours per year. It is our occupation and livelihood on the line to understand how our resource of lobsters are traveling and changing. We discuss what we are seeing and analyze it throughout the day. We know this resource better than any study ever will.

From: Michael Dawson
To: Comments
Subject: [External]
Date: Saturday, October 5, 2024 1:31:43 PM

At this time I feel there is no need for a measure increase .my Name is Michael Dawson I've lobstered for over 40 years, zone D council Chair, LAC member an also have done the Ventless trap survey in the midcoast of Maine for many years. This past year I saw more small lobsters in the traps then I've seen in past years. Some of the biggest numbers I've ever seen in August. Also they don't do the trap survey in the deeper water offshore we're lobsters stay. Ow year round which is a change from years ago! It's just not needed at this time in Maine ! I haven't heard any fisherman in my area that supports this increase at this time or feel that it is needed! Thank you Michael Dawson FV Lisabeth Ann New Harbor Me

From: Michael Thompson
To: Comments
Subject: [External] Lobster draft addendum XXXI
Date: Saturday, October 5, 2024 4:41:41 PM

I have been a commercial fisherman my entire life. Lobster fishing has always been the most conservation minded fishery of all Maines fisheries. In saying that all of these absurd changes as of late have all made no sense and now a measure increase definitely feels like the fatal blow. My catch of keepers may be down this year but the amount of shorts has been through the roof. There definitely does not seem to be a shortage of baby lobsters on the ocean floor. Furthermore if keeping more egg bearing.lobsters around to produce more babies is the goal than fisheries like shafmaster should definitely be dealt with. They fish the Gulf of Maine yet scurt around maines measure and zero tolerance for v notches all the while keeping all the large female brood stock we need to keep the population up. I think it's a joke ur looking to us little guys to fix a problem that the big boats in the gulf that play by different rules and keep big egg bearing females either with a what we call a mutilated tail or just blow the eggs off with an air hose are causing. All of the U.S.A waters should all abide by the same measure and laws as maine. Than I guarantee the population of lobster would thrive for generations to come. Increasing the measure is only gona push us small captian owned operations out of business allowing guys that have no skin in the game to run shafty boats and the problem will continue untill there's nothing left of the fishery. I have made a trip on a shafmaster boat and have witnessed first hand what they legally and illegally keep for lobsters and untill they are dealt with no regulation you impose on us is going to make a difference. I truly hope u reconsider increasing our measure and find a way to make our laws apply to anyone fishing the gulf of Maine as I truly believe that is the only thing that will sustain our fishery for generations to come. Thank you

From: Michelle Plummer
To: Comments
Subject: [External] Lobster draft addendum 31
Date: Sunday, October 6, 2024 12:02:26 AM

To whom it may concern,
I've worked on the back of a boat for approximately 40 years and in my opinion there plenty of small lobsters. So many in fact that that if our measure were 1/8" or even 1/16" smaller our catch this year would have at least quadrupled. But that aside, this is a migratory species. Increasing our measure will do nothing but insure that those states to our south and the country to our north will put our lobster fishery out of business. Unless this is a law that will be implement across the board in all states and Canada there is really no point to increasing our measure. The fact is that there is an abundance of juvenile lobsters that are too small for us to keep. And just in case I haven't made myself clear I do not support increasing our lobster measure size.

Thank You,
Michelle Plummer
Sternman F/V Michelle Lee
Sorrento, Maine

Get Outlook for iOS

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Get Outlook for iOS

Get Outlook for iOS

From: Nat Hussey
To: Comments
Subject: [External] Lobster Draft Addendum XXXI
Date: Saturday, October 5, 2024 9:01:03 AM

I support postponing or terminating this gauge size increase measure. Thank you

Nat Hussey
207 485 2706
ME DMR license #9066, Landings #149931

From: neil kirby
To: Comments
Subject: [External] Comemt about the addendum
Date: Saturday, October 5, 2024 9:33:28 PM

The measure increase is unnecessary and i know my fellow fishermen will agree that this season especially, but also the last few seasons we have caught measured and released an incredibly large amount of short juvenile lobsters, so your trawl survey should be re assessed or else you should listen to the fishermen that are on the water every day collecting real data that will show you the total opposite of your survey. Im 100% against the measure increase, it doesn't need to happen and it shouldn’t happen!
Sent from my iPhone

From: Nicholas Parlatore
To: Comments
Subject: [External] Measure increase
Date: Saturday, October 5, 2024 6:20:05 AM

The proposed measure increase is the worst possible thing this fishery needs, we already throw over 85-90% of what we catch. This year along we've seen a MASSIVE spike in juvenile and egg bearing lobsters. There is no shortage, our measure is already doing its job and with us already keeping so few, this measure increase is only going to drive more people out of the fishery. Please listen to the people who do this for a living, we see alot more than anyone behind a desk or what you find from a small survey.

From: Nick Faulkingham
To: Comments
Subject: [External]
Date: Saturday, October 5, 2024 7:34:13 AM

I am against any changes, regarding vent and measure increases!

I feel more research for juvenile recruitment level lobsters needs to be performed in tidal mud flats during the early summer months. I also think studies should be performed in deeper water throughout the year with better designed equipment. I have witnessed some of the contraptions used for the study and I do not see how an accurate assessment can be performed, especially in deep water.

One of my major concerns with the lobsters industry, is the increasing amount of predatory fish. I have seen an explosion of cunners, cod, and stripped bass in the last 7 years. Cunners, will east lobster eggs along with juvenile lobsters. Cod and stripped bass are targeting larger lobsters and this will be devastating to the lobster industry.

I feel an increase in cod and stripper limits , would be beneficial for the lobster industry I also feel implementing a lobster hatchery program along the newengland seaboard would be beneficial too. Maybe add the program to coastal communitie schools.

From: Galen Plummer <junglerooster1@hotmail.com>
Sent: Wednesday, September 25, 2024 4:59 AM
To: Comments
Subject: [External] Maine measure increase

Some one needs to look further into settlement studies. As a fisherman my observations like many other fishermen shows a huge variety of lobster sizes. A measure increase in size will cost fishermen a lot of money and put us at a disadvantage in the lobster market. It's just not needed.
Sent from my iPhone

From: prentiss harmon
To: Comments
Subject: [External] Lobster Draft Addendum 31
Date: Saturday, October 5, 2024 5:59:42 PM

I do not support the measure increase it will crush what we have worked so hard for. There is nothing but an abundance of egg bearing females and juvenile lobsters in Maine waters right now

From: r.a. morales
To: Comments
Subject: [External] Lobster Draft Addendum 31
Date: Wednesday, September 25, 2024 4:16:06 AM

I support of postponing addendum 27 measures.

Sent from my iPhone

From: RIchard Carlsen
To: Comments
Subject: [External] Measure increase.
Date: Saturday, October 5, 2024 12:27:36 PM

I would like to express my opinion in the measure increase. I've been fishing since I was 11, I am now 60. I have seen good years and bad years. In years past, you would never see undersized lobsters with eggs. There are certain times of the fishing season where there are an abundance of egg lobsters. The past few years, I have seen hundreds of undersized female lobsters .....around a half an inch or so from making the measure. I have never seen a season of limited egg lobsters. The ventless trap surveys are not accurate for a couple of reasons. First, the survey traps are not in a high yield area and second, the bait in a trap lasts about a day before the crabs completely wipe it out so unfortunately the traps stop fishing and no lobsters will go into the trap. This increase in the measure will definitely affect all the lobstermen in a negative way. I will be taking someone from the State out to show the abundance of small lobsters that I have been catching.

If for some reason you still feel the need to pass this law, would you consider a double sided measure ? One side for female increased measure and the other side male with no increase in the measure? It would be really nice to see the people doing the surveys be a little more accurate in their reportings. Maybe go with the people that actually lobster for a living to get a more accurate report.

Thank you,
Richard Carlsen.

From: richard howland
To: Comments
Subject: [External] Public comments for delay in Measure change
Date: Friday, October 4, 2024 5:53:59 PM

I would like to voice my support for delaying the Measure change from January 1, 2025 until July 1, 2025. We need more time to figure out the marketing side, the enforcement side, as well as giving fisherman a chance to make a plan for how this will affect their businesses. Unfortunately the effects of this will be financially devastating too many fisherman who fish in Area 1, and cause rippling side effects in markets from the east coast of Canada down to Massachusetts.
Thank you for your time
Richard Howland
Captain FV Victoria
Islesford Maine

From:	Richard Smith
To:	Comments
Subject:	[External] Lobster Draft Addendum XXXI
Date:	Saturday, October 5, 2024 8:26:26 AM

To whom it may concern,

The proposed measure increase for the lobster fishery is a reaction to a perceived problem, a problem that doesn't exist.
The inshore and offshore Maine lobster population has a healthy stock of juveniles, eggers/notched, and oversized lobsters, but these stocks have moved/shifted over time. I see more juveniles and eggers in the run of a day now than I ever have.
I would suggest that research through sea sampling programs be modified and expanded, before putting additional hardships on business owners and families.
The proposed measure increase is unnecessary, and the increase in vent size planned for 2028 is unabashed stupidity. Our vents are already oversized enough to let lobsters escape that are easily 3/8" above minimum legal carapace length, so current vents would still be adequate with the larger measure.
Now is the time to show you're not as inept at your work as NOAA, and realize you have the capability of taking input from stakeholders in the fishery. We are your best, largest data source. Thousands of sets of eyes on the resource, with a true interest in its' continued abundance.
Thank you for your time.

Richard Smith
F/V Bad Behavior

From: Robert Ingalls
To: Comments
Subject: [External]
Date: Friday, October 4, 2024 11:59:49 AM

Please delay the gauge increase until july 21st 2025.
Give us time to get on the same page with our Canadian counter parts.
I've held a Maine license since 1960.
That's right I'm old.

Robert Ingalls.
16 Pettegrow Point Road
Bucks Harbor, Maine 04655

From: Ryan Sprague
To: Comments
Subject: [External] Oppose Lobster Measure Increase
Date: Saturday, October 5, 2024 5:54:25 AM

The lobsters in our state are as always flourishing. Some areas may not fish as well as others on any given year but with all things involving Mother Nature things cycle. The measure increase would do nothing but cripple our industry and give Canada even more of an upper hand in trade when it concerns our shared marine aquaculture. The science is flawed from bogus testing done by people who probably couldn't tell a female lobster from a male yet we are suppose to believe what these "experts" say is laughable. This is nothing more than a regulation that appears to do nothing but cripple the Maine fishing industry that we have sustained through FISHERMAN EFFORTS and not those of over educated pencil pushers with no real world experience in the fields they claim to be experts in. Have a wonderful day
Sent from my iPhone

From: Sam Flavin
To: Comments
Subject: [External] Lobster Draft Addendum XXXI
Date: Friday, October 4, 2024 5:49:26 PM

To Whom It May Concern,

I am writing in opposition to the proposed measure change. Any increase in our minimum measure will have a profound effect on our catch, particularly during the late winter and early spring. I fish on a year-round boat and from the months of February through June we rely heavily on lobsters that just make our current measure. Without these lobsters I cannot see a viable spring fishery.

Apart from avoiding a measure change entirely, I urge the ASMFC to delay the change to give fishermen time to prepare for this hit.

Sincerely,

Sam Flavin
Crew FV Victoria
Little Cranberry Coop
Islesford, ME

From: Samantha Thompson
To: Comments
Subject: [External] Lobster draft addendum 31
Date: Saturday, October 5, 2024 7:49:00 AM

I implore you to please consider option B, to postpone the Implementation of Addendum XXVII Measures until July 1, 2025.

:-) Samantha Thompson

From: Scott Place
To: Comments
Subject: [External] Lobster draft addendum 31
Date: Saturday, October 5, 2024 10:56:02 PM

To whom it may concern,
The proposal for a gauge increase is nonsense. 30 years ago there wasn't an oversized gauge in Massachusetts, no v notch rules, a quarter pound a pot was the norm much of the fishing season. Now we have a minimum and a maximum size and a zero tolerance v notch and it works. I'm consistently catching well over a pound a trap, throwing back thousands of v notches and seeing hundreds of thousands of shorts. The stock is robust. The reality of ups and downs is plausible to those of us that have been involved and invested in this fishery for decades. It gets better every year. If the 3 1/4" minimum, the 5" maximum and the zero tolerance v notch aren't adequate to sustain this fishery there's way bigger problems going on and a gauge increase won't save it.

Maintain the status quo!

Scott Place
F/V Lee Faith
MA 000427
Rockport Massachusetts

Sent from my iPhone

From: sfogarty72@gmail.com
To: Comments
Subject: [External] Measure increase
Date: Saturday, October 5, 2024 9:03:46 PM

I strongly oppose this increase.

The surveys are flawed.

Sean Fogarty
Zone D
Sent from my iPhone

From: Shane Hatch
To: Comments
Subject: [External] Lobster Draft Addendum 31
Date: Saturday, October 5, 2024 6:41:24 AM

Goodmorning,

My name is Shane Hatch, and have been lobstering/commercial fishing for 31 years. We need to further delay the gauge increase until we have the correct science to back it. I have been a part of the Maine DMR lobster sampling group for close to 20 years. While they do great work and I applaud them, some of the information does not make it to the table. Lobsters have changed many times and in many ways from shallow to deep, hard to soft bottom over the years. I know the biomass is still there but the science saying so has not been used correctly. I have spoken personally to Kathleen (head of Maines lobster sampling) a few times about how we can change this practice. Eventually I hope that we can resolve this issue. It will only show that there are just as many short lobsters as before and possibly more then ever! Thank you for your time.

Shane Hatch
Sent from my iPhone

From: Shaun McLennan
To: Comments
Subject: [External]
Date: Thursday, October 3, 2024 6:54:35 PM

I support the postponement. I do not support any changes to our fishery that has been proven to work well for several decades.

Thank you,
SHAUN MCLENNAN

From: KENNETH STANVICK <kennethstanvick@comcast.net>
Sent: Friday, September 27, 2024 8:12 AM
To: G2W2 <G2W2@asmfc.org>
Cc: Zobel, Renee <Renee.m.Zobel@wildlife.nh.gov>
Subject: [External] meeting Comments

I am recreational lobstermen and have been doing this for the past 10 years in New Hampshire. Let me say that I am not in favor of the proposed amendment. It seems to be yet another attempt to "kick the can" down the road. Science not emotion should dictate the actions necessary to protect a healthy lobster population. We have many examples where the commercial fishermen have denied science to ensure that they can continue to overfish the oceans to support their demand to continue an activity to benefit themselves.
I would suggest that Gulf of Maine (GOM) warming, low recruitment rate rates, should force fisheries managers to conclude that action must be taken, not be driven by the desires of commercial fishermen who have clearly demonstrated they put their needs above science-based decisions.

I need not tell you the many examples of where delaying actions have had a significant impact upon recovering of the target species. I cannot account overfishing as the only factor, but one of many factors which combine to force protective measures to be implemented.

I might speculate that I was the only attendee to vote that the amendment to extend the deadline be denied.
Interested in seeing how the vote turned out? I am sure that 99% of those who attended represented the commercial fishing industry.

Very best regard.

Ken Stanvick

From: Stephen Hutchinson
To: Comments
Subject: [External] Measure/vent increase
Date: Saturday, October 5, 2024 9:59:08 AM

I know what you people are up too it's not to help the fishermen this increase is a tool you are using to put more fishermen out of business you are using the science against us you know we have an abundance of juveniles that will be another boom in the next few years these increases will retard the boom 2 more years you know fishermen are selling out now because of the daily reporting state and federal. The higher cost of doing business and a decline in catch and a price that hasn't reflected an increase to keep up with our other rising prices.

Shame on you all!
sell outs putting us out of business for offshore wind energy farms.
P.S. DEAD AGAINST THIS!!!

From: Xfinity Email
To: Comments
Subject: [External] Addendum XXXI
Date: Monday, September 16, 2024 8:14:47 AM

To the ASMFC:

I am opposed to ASMFC going to Canada to get a minimum size agreement and allowing the Canadians to take the large lobster market from the American taxpaying lobster industry. For decades Cape Cod lobstermen and fish markets sold large lobsters at the Boston fish pier to be then sold nationally and internationally. Offloading occurred alongside the Canadian delivery trucks when seasons overlapped. I myself sold in Boston for forty years. The Boston fish pier wholesalers are familiar with all of us. Addendum XXXI would cut Cape Cod Lobster Management Area catch out of this market.

ASMFC and Massachusetts Division of Marine Fisheries (MA DMF) stated at public hearings that the impact would only be 2% but OCLMA attendees strongly disagreed. I have sought and never received the calculations for this number. Furthermore, MA DMF stated at public hearings that the minimum size increase will result in no financial loss while being silent on v-notch and maximum size financial expectations. The reason is that these two measures are a complete loss and impact the OCLMA significantly.

The OCLMA is a healthy and sustainable lobster fishery because 20 years ago it raised the minimum size and reduced traps by 25%. It is now being thrown into the current problem because MA DMF did not apply these measures throughout the state's waters. Its approach failed. This small region of Massachusetts should not take an economic hit due to MA DMF's mismanagement.

Finally, I believe the Economic Impact Statement (EIS) submitted in Addendum XXVII is flawed. There was not any section about the Cape Cod region which catches large lobsters. Massachusetts requires annual detailed catch reports from all lobster licenseholders and fish markets but those reports are for total pounds only. Since this region has a spectrum of sizes (unlike the MA-NH-MAINE area) the percentages are very important. Not only that but there is no record of the state even attempting to attain such information thus leading to the conclusion that the EIS is a fabrication.

Addendun XXXI significantly impacts the OCLMA and its markets and therefore I oppose it.

Stephen Smith

From: Sydnie Norris
To: Comments
Subject: [External] Measure change
Date: Saturday, October 5, 2024 10:20:30 AM

I work on F/V Amazing Grace out of Swans Island under captain Travis May Sr. We are in agreement to postpone the decision 6 months. If the measure change is going to work in theory, Canada needs to be a part of this change.

From: Thomas McLennan
To: Comments
Subject: [External] lobster draft addendum 31
Date: Saturday, October 5, 2024 5:47:00 AM

This is Thomas McLennan from Spruce Head, Maine. I'm writing to say I DO NOT SUPPORT ANY CHANGE TO THE LOBSTER MEASURE.

LEAVE IT BE!

thank you.

Sent from my U.S.Cellular© Smartphone

From:	Tiffany Strout
To:	Comments
Subject:	[External] Lobster Draft Addendum XXXI
Date:	Saturday, October 5, 2024 1:00:21 PM
Attachments:	Letter to ASMFC addendum XXXI.pdf FINAL-SEAMaine-Economic-Impact-Analysis-Report-2.pdf Addendum XXXI testimony 10-5-2024.pdf

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Dear Atlantic States Marine Fisheries Commission,

My name is Tiffany Strout and I am writing to you today to express my support for Addendum XXXI as put forward by the American Lobster Management Board, to further pause the implementation of the increase in the undersized measure.

Attached please find my testimony as related to acceptance of Addendum XXXI along with my reasonings.

Please include my testimony from both a Legislator and as a parent and concerned citizen along with the Sea Maine report all as apart of my record.

I also submitted testimony signed by all members of the Legislator on the Marine Resource Committee unanimously encouraging a pause on Addendum 29 which is now Addendum 31.

Thank you for watching out for the fishing industries along the coast of the United States. I am hopeful once you read my testimony you will see how your decisions directly affect my community and why I hope you really consider accepting Addendum XXXI allowing more time for science and will connect more with the fishermen who have spent years on the water.

Have a great day!
Tiff

Tiffany Strout
Concerned Parent and Community Member
Representative of District 11
(Milbridge, Harrington, Columbia, Columbia Falls, Centerville, Addison, Jonesport, Beals Island, Jonesboro, Roques Bluff, Whitneyville and Machias)
Phone - 207-598-7043
Email - tiffany.strout@yahoo.com

Dear Atlantic States Marine Fisheries Commission,

My name is Tiffany Strout and I am writing to you today to express my support for Addendum XXXI as put forward by the American Lobster Management Board, to further pause the implementation of the increase in the undersized measure until July 25, 2025.

Attached please find my concerns as the current Representative of District 11 and below, please find my concerns as a resident of the DownEast Maine region and most importantly as a mother as a first-generation lobster fisherman.

In learning more about the Atlantic States Marine Fisheries Commission (ASMFC) I read your mission statement "To promote the better utilization of the fisheries, marine, shell and anadromous, of the Atlantic seaboard by the development of a joint program for the promotion and protection of such fisheries, and by the prevention of physical waste of the fisheries from any cause". I am hopeful as you read this request, you will understand my mission is to help ensure my community is a safe and prosperous community that enables future generations to learn about their heritage and have an opportunity to work and thrive in the fisheries now and in the future. My mission is driven by my sons love of the ocean and the desire to be a part of the fishing community, but also, to help ensure current and future individuals are also able to have the opportunity following in their families' footsteps or like my son, be a first-generation fisherman. Protecting the fishing industry will help to make sure our community does continue to be safe and prosperous for all who live there.

When thinking about prosperity, the value can vary person to person depending on their personal goals. Here is Washington County, our prosperity my be quite different than other areas where you also oversee. In Washington County, we are a community of people with a deep work ethic that has over the years adapted to season jobs such as blueberry harvesting, wreath making and the fisheries. We have no big industry in the coastal parts so working hard and adapting are part of our core values.

Knowing the Commission relies on data and facts to help them make their decisions, I thought I would provide some about Washington County as most may not be familiar with the area.

Washington County Maine, known as the Sunrise County, has a total population of just over 31,437 (2022 census), includes two cities, forty towns, three plantations, and two Native American areas and is located in the far eastern part of the State of Maine. The county is 5th largest in size with a total area of 2,562.7 square miles and boarders Canada both at land and at sea.

As compared to other counties in the United States, Washington County, Maine is considered one of the poorest counties in the United States, consistently ranking among the highest poverty rates in the state of Maine, with a significantly higher poverty rate compared to the national average, meaning, it is considered much poorer than most other US towns when looking at poverty statistics alone. In 2022 the employment rate was 49%.

In reading this you may wonder why this information would be important to the ASMFC when making decisions that effect the regulation around the fishing industry. The simple answer is the fishing industry is the main driver of Washington Counties employment and the main contributor to the economy. Without the fishing industry, Washington County would not exist.

Sea Maine did a report highlighting the impacts of the industry which I have attached to this email and wish to be included in the record for my testimony. If you read the report, you may gain a better understanding of the direct impacts across the state, but I will high light the most important one specific to Washington County and Hancock County, DownEast Region:
"Regionally, the seafood sector in the DownEast region accounted for 45 percent of all direct jobs (and 47.4% of total impact jobs) and supported $390 million in labor income (16 percent) in 2019. The seafood sector in DownEast supports slightly more jobs than Southern Maine despite having less than one-fifth of the population. DownEast seafood jobs were concentrated in the harvesting subsector — the region accounted for 65 percent of all harvesting jobs in seafood sector statewide in 2019. These estimates are likely conservative as a result of a significant amount of harvesting activity that did not have geographic identifying information attached — accounting for nearly 3,700 jobs."

Knowing this information, now ties into why what seems like a small proposal in a measure should not play a big part, but the one you are proposing definitely will but not in the way you are hoping.

As mentioned above, Washington County directly boarders Canada and fisherman from both Washington County and Canada fish in what is called the "Grey Zone" Washington County fisherman are already at a disadvantage when fishing for lobsters on the oversized measure. As you know, lobsters over 5 inches must be thrown back because we know lobsters become more fertile as they age, and the intent is to make sure there are breeders to sustain the future of the industry. Canada however does not have the same regulations on measure and lobsters that are thrown back by Maine lobstermen can then be harvested by Canadian lobstermen defeating the entire reasoning and hurting the industry.

The same thing will happen with an increase in the small measure. It is estimated the small increase in the smaller measure will have a direct 20% decrease in catch for DownEast lobstermen. This is due to the same reasoning as the over sized lobsters. The fishermen fishing in the "Grey Zone" will throw back the current size lobsters they are allowed to keep, and they will go directly into the Canadian traps to be hauled and sold. There will be no time for them to grow and help with the sustainability of the stock as the intent of the change.
Removing 20% of the catch from the fishermen in Washington County will most definitely have both an impact on the fisherman, but also every business in the community including, banks, stores, bait dealers, truck drivers, carpenters, trap makers and the tourist industry. Also, there are several members of the Motahkomikuk and Sipayik reservations who take part in the fishing industry in Washington County and some may also fish in the "Grey Zone", but even if they are shore fishermen, the effect is still the same with Canada.

While I can respect the intent of ASMFC is to protect the fishing species, I can assure you, there are no better stewards of the sea including the ecosystem and species than those who have relied and need to rely on the industry for their livelihood and more importantly take great pride in their heritage.

Allowing the fishermen to be more of the voice of the science based on years of time on the water learning the migration of the species and working to make sure the industry can continue will be the most beneficial to everyone including the species that live in the ocean.
This model has proven true over the years with things like removing all thousands of miles of floating rope from their gear, using breakaways on their balloons and buoys and probably one of the

most important implementations of V-notching the egg bearing female lobsters and returning them to the sea.

A request I have for the commission is to also look at other areas like industrialization of the Atlantic Ocean and how that is impacting the ocean species and ecosystems both now and in the future. There are companies' sonar blasting the bottom for mapping and then there will be 100s of miles of dredging to try to bury all the cables coming to shore.

The intent of Addendum 29 is to help maintaining the lobster stock, but there is not conversation about what the effects of dredging through breeding grounds of all species or even the protected coral areas. There has been no remarks offered by the commission, at least that I could find, related to the danger of the EMF that is emitted from the electrical cables that European studies have shown to deform the lobster larva not allowing the tail to properly develop causing them to be unable to swim or the mesmerizing effect it has on the crab species to cause them to freeze and not move. One of the most concerning futures is the floating offshore wind terminals that require dragging 3 to 4 ginormous anchors across the bottom of the ocean on 3 to 4 sides of the platform to get them to hitch in the ground for anchors. Knowing anything about the ocean tells you that you will need to have slack in the chains going to the platform because well, the ocean is always moving which will be dragging continually across the bottom as it moves side to side. In addition, you will not be able to bury any of the cables connecting to each other or to the shore because again, the ocean is always moving which will create a spiderweb of floating cables through the array. There are many more concerns including the wake and smother effects also both damaging to the ecosystem.

If the commission really wanted to make a difference in the sustainability of the ocean and the species that call it home, they should listen to those who want to protect it for their heritage and livelihood rather than those who want to profit by industrializing the ocean not caring about the species that call it home.

Thank you for taking the time to read my concerns and I hope you have a better understanding about the direct impact accepting Addendum XXXI will have on my community and the people that want to continue to call DownEast Maine home. With new data being collected to show recovery of the stock, further moving the measure adjustment out will allow for more time to gather additional date and if the data shows recovery with the measure currently in place, would changing the measure make any difference to the recoverability of the lobster stock, maybe a better chance in southern Maine, but not in DownEast when fishing with Canadians who are maintaining the current measure but I guarantee the biggest threat to everything in the ocean is industrialization.

Please let me know if you have any questions and I am hopeful the commission will take time to learn more about the effects their decisions have on people.

Tiffany Strout
Mother of a First-Generation Fisherman
Concerned community member
Phone: 207-598-7043
Email: tiffany.strout@yahoo.com

HOUSE OF REPRESENTATIVES
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TTY: (207) 287-4469

Tiffany Strout
12 Anderson Lane
Harrington, ME 04643
Home Phone: (207) 598-7043
Tiffany.Strout@legislature.maine.gov

Dear Atlantic States Marine Fisheries Commission,

I am writing to you today to request through review and approval of Addendum XXXI to further pause the implementation of a change in the undersized measure of a lobster harvested extending the pause until July of 2025. With the understanding the lobster industry needs to have sustainability policies in place to help ensure the continuation of the heritage industry, concern has been brought forward by the industry of this change in the under measure hoping to have an effect on sustainability but is certain to have a huge effect on the commercial fishermen.

As the industry has both grown and become more profitable, those in the industry have worked tirelessly to monitor the industry and put forward policies such as v-notching egg bearing females so they will not be able to be caught in the future and would continue as proven breeders producing lobsters for the future.

A couple of major concerns with a change in the undersize measure are, the decrease in the landings estimated to be 20% in zone A and the unfairness of the competition with the fishermen in Canada. When zone A lobstermen return under sized lobsters, those moving lobsters are going to crawl in the Canadian traps and be caught and kept for sale. The unintended consequences of changing the undersized measure are a decrease of landings for Maine lobstermen and an increase in landings for the Canadian lobstermen still resulting in the same number of lobsters harvested.

I appreciate the passing of Addendum XXX to not allow live lobsters to be imported into the United States that did not meet the measurement requirements imposed on Maine fishermen. My concern is, if this amendment only relates to live lobsters, but not processed meat, there would be no way to measure the shell of the lobster that was harvested and would there for not deter the catch of the new undersized measured lobsters in Canada as they could be caught, processed, and shipped into the United States.

In addition, the lobstermen have been under extreme stress and financial hardships implementing gear for all the whale regulations, increased cost in bait, increased cost in fuel and recently extreme storms that have destroyed both boats and wharfs. At this time, implementing a change in the undersize measure, when the science is showing leveling off or a slight increase in juvenile lobsters being recorded seems like yet another unnecessary regulation.

Allowing the lobstermen to work continue to work while there is a pause in the whale regulations will provide more data for better scientific review. The lobstermen are the biggest stewards of the ocean and the fishing industry, not just lobstering. As a representative of the industry, the information you can provide to ASMFC could be a deciding factor.

Thank you for your time and consideration of this recommendation. I am looking forward to hearing your thoughts and working with you towards continuing to pause the new undersized measure regulation.

Sincerely,

Tiffany Strout
State Representative

District 11 Addison, Beals, Columbia, Columbia Falls, Harrington, Jonesboro, Jonesport, Machias, Milbridge, Roque Bluffs, Whitneyville, Centerville Township, and North Washington (Part)

The Economic Impacts of the Maine Seafood Sector

Prepared for

Seafood Economic Accelerator for Maine

Prepared by

Middlebury Institute *of* International Studies at Monterey

Center for the Blue Economy

MAINE CENTER FOR BUSINESS AND ECONOMIC RESEARCH

UNIVERSITY OF SOUTHERN MAINE

January 2023

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Acknowledgements

The authors of this report were Ryan Wallace, Director of the Center for Business & Economic Research of the University of Southern Maine, and Charles S. Colgan, Director of Research in the Center for the Blue Economy of the Middlebury Institute of International Studies at Monterey. Caroline Paras provided research support for the project.

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Andrew Lively of Cooke Aquaculture and the Market Development Committee oversaw the project for SeaMaine.

This project was funded by

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1 Executive Summary

This analysis utilizes the best available data from the Maine Departments of Marine Resources and Labor together with the IMPLAN economic model to estimate the total (direct, indirect, and induced) economic impacts of the commercial seafood sector and core value chain components on the state of Maine and substate regions. The analysis is intended to serve as a baseline indicator from which to compare impacts in future years, as well as to evaluate the impact of specific investments or initiatives on the growth of the sector over time. The major findings of the analysis are summarized below.

- The seafood sector contributed **over $3.2 billion dollars in total economic output** to the Maine economy in 2019. Retail seafood ($692 million), lobster harvesting ($511 million), and seafood processing ($343 million) were the largest contributing industries to total economic output.

- The sector supported **over 33,300 jobs statewide** in 2019, 23,846 of which were employed directly in sector industries and another 7,300 additional jobs supported from other indirect and induced multiplier effects. **Harvesting including lobster, non-lobster species and aquaculture is the largest employing part of the seafood sector supporting over 12,700 jobs**, followed by retail seafood outlets, including restaurants (8,550).

- Total direct and multiplier effects jobs in seafood estimated here makes the seafood sector the **largest natural resource-based sector in the Maine economy**.

- Employment supported **$1.3 billion in total labor income**, $967 million of which were from direct employment in the value chain industries and another $336 million resulting from other indirect and induced multiplier effects. Contributions to labor income were led **by lobster harvesting ($393 million)**, retail ($285 million), and all other non-lobster species harvesting ($155 million).

- The seafood sector supported an estimated **$449 million in tax revenues** in 2019, including local, state, and federal. The sector supported nearly $91 million in local and $110 million in state tax revenues. A total of $248 million in federal tax revenues were also supported.

- Regionally, the seafood sector in the **Downeast region accounted for 45 percent of all direct jobs** (and 47.4% of total impact jobs) and supported $390 million in labor income (16 percent) in 2019. The seafood sector in Downeast supports slightly more jobs than Southern Maine despite having less than one-fifth of the population. Downeast seafood jobs were concentrated in the harvesting subsector — the region accounted for 65 percent of all harvesting jobs in seafood sector statewide in 2019. These estimates are likely conservative as a result of a significant amount of harvesting activity that did not have geographic identifying information attached — accounting for nearly 3,700 jobs.

- The seafood sector supported over 10,000 jobs and over $260 million in labor income in 2019 in the Midcoast region. The sources of economic impacts from the seafood sector are concentrated in lobster harvesting and retail for the region, with aquaculture comprising a smaller but growing sources of jobs and income in the region.

- In Southern Maine, the seafood sector supported over 7,600 jobs and $370 million in labor income — slightly less than Downeast. The bulk of direct jobs were supported by the retail industry sector (over 4,000), while harvesting (all species wild caught) supported roughly 1,240 jobs.
- The seafood sector's total economic impact is a much larger share of the Downeast region, accounting for almost 20% of employment than the sector comprises of Midcoast or Southern economies.

This study focused on 2019, prior to the Covid pandemic. The continuing updating and improvement of economic data for the seafood sector and the individual industries should be a high priority for the industry and policy makers.

2 Introduction

2.1 Background

Maine seafood is central to the state's economic identity both in Maine and beyond. The seafood sector value chain collectively supports thousands of jobs and billions of dollars in incomes and output each year in the state and supports the prosperity of numerous communities along Maine's coast.

The Seafood Economic Accelerator for Maine (SEAMaine) commissioned the Middlebury Institute for International Studies Center for the Blue Economy (CBE) and the University of Southern Maine Center for Business and Economic Research (CBER) to quantify the economic contribution of the seafood sector to the Maine economy. This analysis is intended to support a larger effort aimed at improving the marketing of Maine seafood and is complementary to the work of other SEAMaine subcommittee reports. The analysis focuses on the domestic commercial seafood sector in Maine and should serve as a baseline case from which to compare impacts in future years, as well as to evaluate the impact of specific investments or initiatives on the growth of the sector.

2.2 The Maine Seafood Sector

The seafood sector is a composition of several economic activities, or industries, and can be characterized as a value chain as suggested in Figure 1. This figure describes the wild capture fisheries including lobsters, finfish, and other shellfish. The economic process begins with the purchase of certain inputs to the catching and cultivation process and proceeds through landing the catch, transporting it to processors and/or on to wholesale distribution or retail markets, such as seafood markets, grocery stores, or restaurants. At each stage of the process value is added to the fish caught, generating economic impacts through each step.

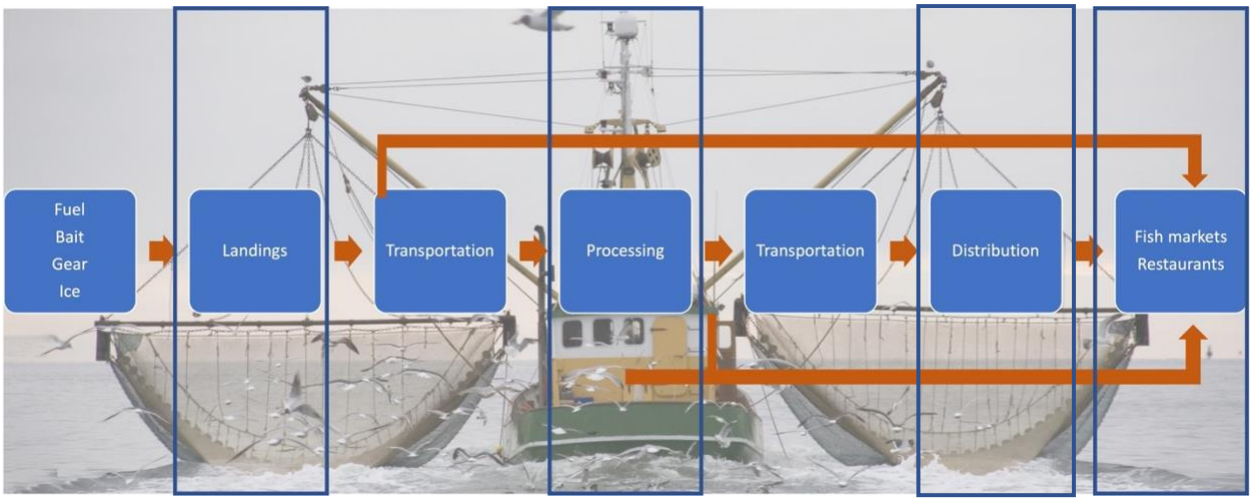

Figure 1: Wild Caught Fisheries Value Chain

The boxes in Figure 1 show the major points at which the economic contributions of the fisheries are measured: at the point of first sale (landings), at the point where the fish is processed into higher value products, at the points where the fish is distributed through wholesale markets, and at the final point of

sale through retail outlets. The value chain for aquaculture is very similar except that the inputs include food and in-water structures rather than bait, ice, and boats.

The economic characterization of the seafood sector tracks value creation through the four major industries — harvesting and production, processing, distribution, and retail since these are defined industries in standard economic data. The interrelationships among industries related to fishing are measured through economic impact (multiplier) analysis as described below. The total economic activity in Maine related to fishing is also affected by the purchases of goods and services within Maine not only by the fish harvesting stage. Data on inputs to harvesting and aquaculture such as bait, fuel, ice, dockage and mooring are not monitored and so are not included in this analysis directly. Approximations of the role of these inputs are provided in the IMPLAN model.

2.3 Methods Summary

This analysis is focused on quantifying the economic contribution (impacts) of the seafood sector on the Maine economy, inclusive of the direct economic impacts of the sector and its value chain components, as well as the other indirect or induced effects that result from recurring rounds of business to business and employee wages in the economy. For this purpose, a number of standard economic data sets and tools are used.

But it must be acknowledged at the outset that there are several significant weaknesses in the available data when it comes to fisheries. These include the fact that the vast majority of those employed in the harvesting sector are not counted in the most important regional economic data series because harvesters are not covered by unemployment insurance and are usually paid in shares of the catch value rather than wages. A similar problem exists with aquaculture producers, though to a somewhat lesser extent because some firms in the aquaculture industry do have significant portions of their employment in the Department of Labor data used for the study. The fishing industry's contribution shares to such industries as wholesale, retail, and transportation is also not measured in Maine and so national relationships must be used. This analysis, therefore, requires careful construction of data from multiple sources.

Employment is estimated as the number of jobs, both full-time and part-time, and includes wage and salaried employees, sole proprietors, and active partners. Employment is reported as inclusive of both the number of full-and part-time jobs. See the Appendix for a detailed description of job estimates in the harvesting industries.

Labor Income includes wages and salaries and any other compensation to labor such as benefits.

Value Added is the difference between gross output (sales) and the costs of inputs such as supplies, inventory, and capital goods. It primarily consists of payments to labor and to ownership (adjusted for taxes). Value added can be compared between industries without double counting.

Gross Output is equivalent to gross revenues or sales. Gross output cannot be easily compared between industries because the sales of one industry

The initial measures of the various sector industries are based upon data from the Maine Department of Labor, Maine Department of Marine Resources, and other supporting sources covering employment, wages, or ex-vessel landed value. Estimation of the direct and economic impacts are generated using the IMPLAN economic model and other available data. Employment in the harvesting and aquaculture industries are estimated using Department of Marine Resources licensing data. The Appendix provides a detailed explanation of how the licensing data was used to estimate employment. Economic impacts are reported across four core indicators—employment, labor income, value added, and gross output. For each

indicator the direct, indirect, and induced effects are reported. Details of data sources and limitations and estimation methods can be found in the Section 7.

The analysis focuses on the sector's economic impact in 2019. Some data is available for 2020 and 2021, however, the data series are not yet in place to accurately measure the many disruptions stemming from the COVID-19 pandemic. To be sure, the pandemic likely caused longer term implications within the sector, whether related to markets, inter-industry relationships, or firm/establishment-level operations, that will take time to emerge from several years of post-pandemic data. Despite 2019 being a more appropriate year for complete measurement, the analysis is not able to capture significant year-to-year changes that may not be related to the pandemic, such as the growth in aquaculture employment and wages.

3 Economic Impacts by Major Industry

3.1 Statewide Economic Impact Summary for 2019

The seafood sector contributed over $**3.2 billion dollars in total economic output** to the Maine economy in 2019 (Table 1). The sector supported over **33,000 jobs statewide**, 23,846 of which were employed directly in sector industries and another 9,400 additional jobs supported from other indirect and induced multiplier effects. **Harvesting (all species) accounts for over 12,700 direct jobs. Seafood retail and restaurant employment accounts for over 8,500 jobs.**

Employment supported **$1.3 billion in total labor income**, $967 million of which were from direct employment in the value chain industries and another $336 million resulting from other indirect and induced multiplier effects. Contributions to labor income were led by lobster harvesting ($393 million), retail ($285 million), and all other non-lobster species harvesting ($155 million), while retail ($692 million), lobster harvesting ($511 million), and processing ($343 million) were the largest contributing industries to total economic output.

In total, the seafood sector contributed over $3.2 billion in total economic output to the Maine economy in 2019, two-thirds ($2.15 billion) resulting from direct sales in sector industries. Of total economic output, roughly $1.97 billion is accounted for as value added.

Table 1: Maine Seafood Sector Economic Impact Summary

Industry	Employment	Labor Income ($M)	Value Added ($M)	Gross Output ($M)
Aquaculture	540	$28.9	$190.1	$198.4
Harvesting (Non-Lobster)	7,663	$154.7	$174.8	$196.2
Harvesting (Lobster)	5,037	$393.0	$446.9	$511.6
Processing	735	$36.5	$48.6	$343.1
Retail	8,558	$285.3	$425.9	$692.4
Wholesale & Logistics	1,313	$68.6	$91.0	$212.6
Total Direct	23,846	$966.9	$1,377.3	$2,154.3
Indirect (all other)	3,154	$106.4	$169.7	$353.8
Induced	6,319	$229.9	$419.4	$732.6
Total	33,319	$1,303.22	$1,966.35	$3,240.72

3.2 Industry Sector Economic Impacts

This section provides the economic impacts of each individual value chain component (industry), including indirect and induced impacts occurring in other subsector value chain components. As a result, the total of the estimates reported for each value chain component that follows will not sum to the statewide summary presented in Section 3.1., which adjusts the indirect and induced impacts to account for value chain overlaps in the individual value chain component subsectors. For example, indirect jobs estimated for the processing industry will include jobs in the harvesting industry. While those jobs are included in the estimates for the processing industry in this section, those jobs are adjusted in the statewide summary to eliminate double counting.

The industry-level impacts reported here are summarized by both statewide total and by region. The seafood sector in concentrated along coastal communities, however, its impact extends to all corners of the state. To provide a greater level of geographic detail of where sector impacts are concentrated, impacts are reported for 4 regions in the state based on county level aggregates (Figure 2).

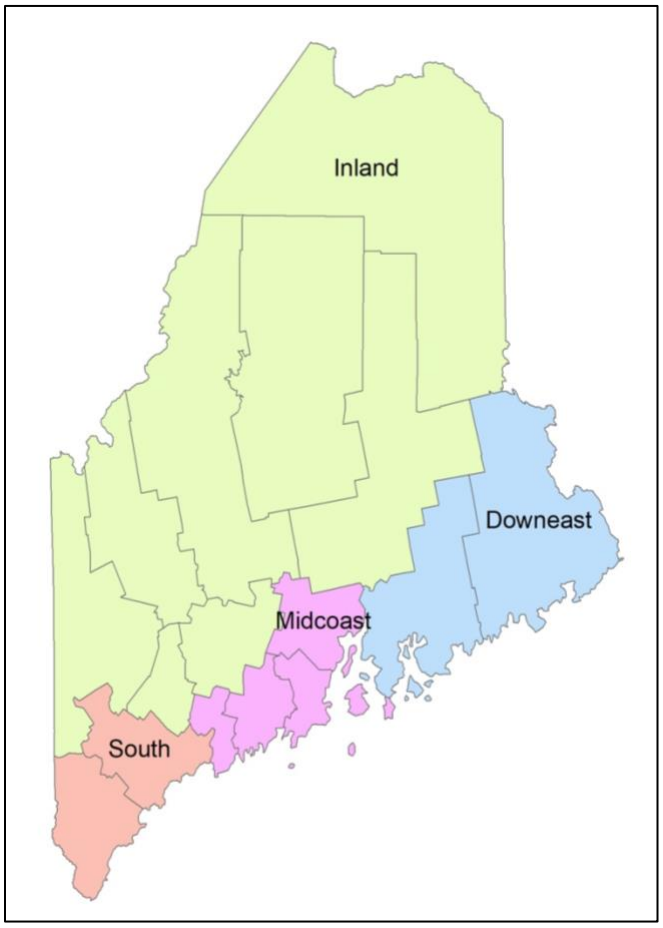

Figure 2: Regions Used in Seafood Economic Analysis

These regions are reported in place of county level estimates to protect confidentiality of industry participants and data management requirements for various data series. In some cases, data for certain industries lacked geographic identifying information and could not be assigned to a region within the state. These impacts are included in the state level reporting but are reported as an "unidentified" region. As a result, the regional specific impacts reported here for harvesting and to a lesser extent wholesale and logistics, can be considered conservative.

3.2.1 Aquaculture

Aquaculture involves the cultivation of fish, shellfish, and marine plants which may utilize ocean sites or be produced in land-based facilities using sea water[1]. Although considerably smaller than wild-caught harvesting, aquaculture is growing rapidly in operations in development or under consideration that would support hundreds of additional jobs and income in the coming years.

Measuring the economic scale of the industry is difficult, due in part to the infancy of the industry in Maine and the length of the business cycle from inception to realized revenues from production, which can take up to five years. Maine DMR data indicate approximately 156 aquaculture lease sites spanning over 1,400 acres as of 2019. However, not all lease sites actively realize revenue from production. Furthermore, the majority of these lease sites, if in operation, do not report employment data to the state but are overseen by owner-operators who are counted as self-employment. The Department of Labor data indicate there were approximately 36 aquaculture operations supporting 340 jobs in 2019 with labor income totaling roughly $29 million — direct effects of the industry. We estimate that 200 additional jobs are located in organizations operating

[1] In Maine, aquaculture is primarily of marine species. Freshwater hatcheries in Maine for trout and landlocked salmon are run by the U.S. Fish & Wildlife Service and Maine Department of Inland Fisheries & Wildlife but these are not included here because the relevant economic data for these facilities is reported as part of state government employment in general.

Limited Purpose Aquaculture sites of 400 square feet for commercial purposes (See Appendix for more details.)

In total, at least 540 jobs were supported in 2019 and over $36 million in labor income (Table 2). The industry supported total output of $223 million, accounting for approximately 7 percent of the entire seafood sectors impact in 2019. The bulk of impacts from aquaculture were located in Downeast followed by the Midcoast region accounting for nearly 90 percent of the industry's output and 75 percent of the industry's employment statewide (Table 3).

Table 2: Economic Impacts of Aquaculture

	Employment	Labor Income ($M)	Value Added ($M)	Gross Output ($M)
Direct	540	$28.9	$190.1	$198.4
Indirect	78	$1.2	$2.8	$4.6
Induced	218	$6.3	$11.5	$19.9
Total	837	$36.4	$204.4	$222.9

Table 3: Total Economic Impacts of Aquaculture by Region

	Employment	Labor Income ($M)	Value Added ($M)	Gross Output ($M)
Downeast	308	$16.3	$105.4	$114.7
Inland Maine	52	$6.7	$11.8	$14.2
Midcoast	219	$9.1	$74.2	$79.5
Southern Maine	162	$4.4	$13.0	$14.5
Total	740	$36.4	$204.4	$222.9

3.2.2 Harvesting - Lobsters

Lobster harvesting is perhaps the most emblematic part of the Maine seafood sector and is an icon of the Maine brand. Like other harvesting industries, employment in lobstering is difficult to quantify due to the seasonality of the industry and business structure and to the nature of the statistical systems. There was a total of 8,923 lobster licenses of all types in 2019 reported by DMR. These were converted to 8,200 individuals by counting unique name-date of birth identifiers and removing multiple licenses. From this total, noncommercial license holders were removed along with under 18, demonstration licenses, and non-resident licenses. The result is approximately 5,000 unique individuals holding commercial lobster licenses. Actual employment in lobster harvesting cannot be directly measured since some of these license holders may not engage in harvesting.

In 2019, the landed value of lobster totaled $485 million. Although the amount of landed weight was lower compared to previous years, the price of lobster remained high throughout the season. Of the total landed value, 41 percent was in Downeast, with another 32 percent in the Midcoast region and roughly 13

percent in Southern Maine. Approximately 13 percent of the landed value was not associated with a specific geography and is therefore attributed to the state as a whole (Table 5).

An estimated 5,000 jobs were supported directly from lobster harvesting, with $393 million in labor income in 2019 (Table 4). These jobs, which include full- and part-time jobs, are the typical level of employment associated with the total landed value (output), as calculated by the IMPLAN model. An additional 1,500 jobs and $106 million in labor income were supported from indirect and induced effects. A total of $852 million in economic output were supported statewide accounting for over one-quarter of the entire seafood sector output statewide in 2019.

Table 4: Economic Impacts of Lobster Harvesting Statewide

	Employment	Labor Income ($M)	Value Added ($M)	Gross Output ($M)
Direct	5,037	$393.0	$446.9	$511.6
Indirect	127	$11.3	$20.8	$42.6
Induced	1,376	$95.0	$171.5	$298.3
Total	6,540	$499.3	$639.2	$852.5

Table 5: Total Economic Impacts of Lobster Harvesting by Region

	Employment	Labor Income ($M)	Value Added ($M)	Gross Output ($M)
Downeast	2,951	$214.5	$273.2	$382.3
Inland Maine	243	$139.0	$184.3	$233.7
Midcoast	2,189	$73.6	$88.2	$111.2
Southern Maine	1,157	$72.2	$93.5	$125.3
Total	6,540	$499.3	$639.2	$852.5

Special Note: Boat building and Repair. Boatbuilding and repair is a significant supplier industry to the harvesting industries. The Maine boat building industry supplies the recreational, commercial, and fishing industries, but no data series provides separate estimates for these markets. Indirect jobs supported in boatbuilding and repair for fisheries are estimated separately. Existing data allowed estimates only for new boats purchased in 2019. These estimates were derived from boat registrations reported in various datasets (Maine Inland Fisheries and Wildlife, Department of Marine Resources, and US Coast Guard) and average cost by retail value of these vessels. In total, $8.1 million in new vessel sales for the harvesting industry were assumed which supported an estimated 30 jobs in boatbuilding and an addition 22 from multiplier effects. These jobs collectively supported a total of $2.7 million labor income across the Midcoast and Downeast regions, where most of the boat building industry is located.

3.2.3 Harvesting – Non-lobster

Although lobster accounts for the largest share of wild caught species, $183 million in landed value of other species were realized in 2019. The non-lobster species can be grouped as follows (with the number of individuals holding licenses):

Finfish	2,731
Eel/Elver	1,193
Shellfish	2,541
Echinoderms	260
Marine Worms	775
Seaweed	163
TOTAL	7,663

Like other harvesting industries such as lobster harvesting, counting employment in the industry is challenging because there are no official data on the number of people employed in the various fisheries. Based on data for the various species, just over 7,600 licenses were identified in 2019.

Harvesting of wild caught species excluding lobster supported over 10,300 jobs in 2019, of which 7,600 were directly involved with harvesting operations (Table 6).[2] A total of $201 million in labor income was supported by the industry, including $158 million from direct effects and another $46 million from indirect and induced effects. A total of $345 million in total economic output was supported by wild caught harvesting excluding lobster in 2019. This accounted for approximately 11 percent of the seafood sector's total output. Like lobster harvesting, impacts were largest in the Downeast region (Table 7). However, some caution should be taken in this interpretation given the significant number of impacts that were not able to be geographically identified.

[2] It should be noted that 7,663 direct jobs based on license data is an indication of people that work or derive some level of income from fishing. We have no basis to determine how many of these individuals derive substantial income from fishing or what the fishing income distribution of licenses holders is. The IMPlan model estimates 2,737 direct jobs based on the 2019 landed value (output), which is the number of jobs typically associated with the corresponding level of output for a national fishery that includes much larger fisheries and fishing enterprises than found in Maine.

Table 6: Economic Impacts of Harvesting (Non-lobster) Statewide

	Employment	Labor Income ($M)	Value Added ($M)	Gross Output ($M)
Direct	7,663	$154.7	$174.8	$196.2
Indirect	194	$4.1	$7.6	$15.8
Induced	2,535	$42.4	$76.1	$133.1
Total	10,392	$201.2	$258.5	$345.0

Table 7: Total Economic Impacts of Non-Lobster Harvesting

	Employment	Labor Income ($M)	Value Added ($M)	Gross Output ($M)
Downeast	5,401	$29.8	$37.9	$53.0
Inland Maine	705	$19.2	$25.4	$32.2
Midcoast	2,836	$20.5	$24.6	$31.0
Southern Maine	1,450	$131.8	$170.6	$228.7
Total	10,392	$201.2	$258.5	$345.0

3.2.4 Processing

Seafood processing includes the value-added production of harvested fisheries and aquaculture that turn raw living resources into seafood products, including frozen seafood and other specialty seafood products. Most processors in the state are larger operations and are included in the standard data series. Based on DOL data, a total of 735 jobs were supported in the seafood processing industry in 2019, which in turn supported another 1,142 indirect jobs and 395 induced jobs (Table 8). A total of $108 million in labor income was supported by the processing industry in 2019, or which $37 million were from direct payrolls of seafood processors. The industry supported $515 million in economic output which accounted for 16 percent of the seafood sector's total output.

The impacts of the processing industry are highest in Southern Maine which supported over 930 jobs (Table 9), followed by Downeast (725 jobs), and the Midcoast region (611 jobs). The concentration in Southern Maine is partly a legacy of a time when Portland was a major center of the fishing industry and where there was easy access to a labor force. The shift of landings eastward over the past two decades has supported growth in processing, which may continue in the future.

Table 8: Economic Impacts of Processing Statewide

	Employment	Labor Income ($M)	Value Added ($M)	Gross Output ($M)
Direct	735	$36.5	$48.6	$343.1
Indirect	1,142	$54.1	$75.6	$117.2
Induced	395	$17.2	$31.7	$55.5
Total	2,271	$107.8	$156.0	$515.8

Table 9: Total Economic Impacts of Processing by Region

	Employment	Labor Income ($M)	Value Added ($M)	Gross Output ($M)
Downeast	735	$34.1	$49.5	$145.6
Midcoast	611	$29.0	$43.5	$153.4
Southern Maine	936	$44.7	$63.0	$216.7
Total	2,282	$107.8	$156.0	$515.8

3.2.5 Wholesale and Logistics

Wholesale and logistics are focused on the distribution of raw and processed seafood products to domestic and international markets. The industry includes the storage, transportation, and logistics of moving seafood products to retail and consumer markets. Businesses engaged in the shipment and handling of seafood products are required to be licensed by DMR. Those records are matched with DOL data to then aggregate wholesale operations handling seafood. Over 1,300 jobs were supported by wholesale and logistics operations in 2019 across the state, which in turn supported another 990 jobs through indirect and induced effects (Table 10). Over $115 million in labor income was supported, of which $69 million was from direct payrolls of seafood wholesalers. In total wholesale and logistics supported over $350 million in output, accounting for 11 percent of the seafood sector's total output.

The economic impacts of the seafood wholesale and logistics industry was concentrated in Southern Maine (1,060 jobs), followed by 880 jobs in the Downeast region and 320 jobs in the Midcoast region (Table 11).

Table 10: Economic Impacts of Wholesale and Logistics Statewide

	Employment	Labor Income ($M)	Value Added ($M)	Gross Output ($M)
Direct	1,313	$68.6	$91.0	$212.6
Indirect	572	$27.8	$40.4	$80.3
Induced	421	$18.8	$34.4	$59.9
Total	2,306	$115.2	$165.8	$352.8

Table 11: Total Economic Impacts of Wholesale/Logistics by Region

	Employment	Labor Income ($M)	Value Added ($M)	Gross Output ($M)
Downeast	881	$44.6	$64.2	$121.7
Midcoast	319	$14.8	$21.3	$48.9
Southern Maine	1,068	$54.1	$78.0	$177.6
Unidentified	37	$1.6	$2.3	$4.6
Total	2,306	$115.2	$165.8	$352.8

3.2.6 Retail: Markets and Restaurants

The retail seafood industry includes seafood specialty food stores, supermarkets, and seafood restaurants. Fish and seafood specialty markets are identified in DOL economic data totaling 370 jobs across 37 establishments in the state. In addition, approximately 5 percent of supermarket employment is included to account for seafood department employment. Seafood is sold in many restaurants in Maine, but much of that seafood will have come from outside Maine. To focus on those restaurants that use Maine seafood as an input, DMR data is combined with DOL data. Restaurants engaged in the handling of raw seafood products are required to be licensed by DMR. Those records were matched with DOL records to then aggregate restaurant operations handling seafood and are assumed to be 7,830. In total, over 8,550 jobs were supported by retail operations in 2019 across the state (Table 12). An additional 2,400 jobs were supported though indirect and induced effects. A total of $389 million in labor income was supported by the retail seafood industry, of which $285 million was from direct payrolls of seafood retailers. In total, retail seafood supported over $1 billion in output, accounting for 32 percent of the seafood sector's total output.

Nearly half of the total impacts of retail seafood were located in the Southern Maine region totaling over 5,100 jobs (Table 13). Retail seafood is the key conduit between the coastal regions of Maine and the inland counties of the rest of the state. Retail seafood supported 2,175 jobs in the Inland Region of the state, extending from Aroostook County to Oxford County.

Table 12: Economic Impacts of Retail /Restaurant Statewide

	Employment	Labor Income ($M)	Value Added ($M)	Gross Output ($M)
Direct	8,558	$285.3	$425.9	$692.4
Indirect	1,041	$46.0	$76.1	$164.4
Induced	1,374	$58.1	$108.5	$191.0
Total	10,974	$389.4	$610.5	$1,047.9

Table 13: Total Impacts of Retail/Restaurant by Region

	Employment	Labor Income ($M)	Value Added ($M)	Gross Output ($M)
Downeast	1,579	$62.0	$96.9	$163.6
Inland Maine	2,175	$64.9	$104.9	$189.3
Midcoast	2,082	$67.2	$107.2	$187.3
Southern Maine	5,138	$195.3	$301.4	$507.7
Total	10,974	$389.4	$610.5	$1,047.9

4 Regional Economic Impacts

4.1 Downeast Maine

The seafood industry plays an outsized role in the Downeast region contributing over $960 million in total economic output in 2019, which accounted for nearly 14 percent of the region's total output (Table 14). The sector supported over 10,900 jobs, of which approximately 8,200 jobs were directly employed in the sector with another 2,300 jobs supported from other indirect and induced multiplier effects. The seafood sector supported $390 million in labor income, or 12 percent of the Downeast regional total. Similar to employment, roughly two-thirds of total labor income was supported directly by sector industries.

Although well-known as the center of lobster harvesting in Maine (with about 3,000 jobs), the Downeast region is also the major center for non-lobster harvesting (about 5,400 jobs). Retail contributed another 1,400 jobs, while other non-lobster species harvesting and wholesale supported roughly 500 jobs in each of those industries. Processing played a much smaller role relative to the size of the harvesting industry in the region in 2019. The seafood sector in Downeast supports considerably more jobs than Southern Maine despite having less than one-fifth of the population. Downeast sector is much more comprised of the harvesting and production of seafood products, whereas in Southern Maine the sector is much more concentrated in the retail consumption of seafood products.

Table 14: Economic Impact Summary for the Downeast Region

Industry	Employment	Labor Income ($M)	Value Added ($M)	Gross Output ($M)
Aquaculture	308	$12.2	$97.9	$102.1
Harvest Non-lobster	5,401	$21.9	$24.1	$29.1
Harvest Lobster	2,951	$158.1	$173.8	$209.7
Processing	275	$11.1	$14.7	$88.5
Retail	1,144	$38.5	$57.7	$93.2
Wholesale Distribution & Logistics	881	$22.5	$29.7	$61.3
Total Direct	10,961	264	398	584
Indirect (all other)	1,639	$41.0	$64.0	$124.1
Induced	3,284	$86.3	$150.6	$255.6
Total	15,884	$391.70	$612.47	$963.68

4.2 Midcoast

Harvesting in the Midcoast region accounts for about 5,000 jobs, somewhat smaller than Downeast (Table 15). But at 2,000 jobs, the retail/restaurant industry has almost twice as many jobs as the Downeast region. Direct employment in the Midcoast seafood sector accounted for 8,200 jobs with a total economic impact from 10,800 jobs. These jobs generate over $260 million in labor income in the region. The sources of economic impacts from the seafood sector are concentrated in lobster harvesting and retail for the region, with aquaculture comprising a smaller but growing sources of jobs and income in the region.

Despite the smaller footprint of the seafood sector in the Midcoast region, over $710 million in total economic output is still supported in the region accounting for almost 6% of total regional economic output.

Table 15: Economic Impact Summary for the Midcoast Region

Industry	Employment	Labor Income ($M)	Value Added ($M)	Gross Output ($M)
Aquaculture	219	$7.6	$71.1	$74.1
Harvest Non-lobster	2,836	$16.4	$20.0	$22.3
Harvest Lobster	2,189	$118.6	$145.3	$161.7
Processing	611	$10.7	$14.3	$107.5
Retail	2,082	$50.9	$77.9	$128.1
Wholesale Distribution & Logistics	319	$9.1	$12.2	$30.8
Total Direct	8,255	$213.2	$340.8	$524.5
Indirect (all other)	860	$20.2	$31.5	$71.0
Induced	1,724	$34.0	$65.6	$118.3
Total	10,840	$267.4	$438.0	$713.9

4.3 Southern Maine

The Southern Maine seafood sector supported over $1 billion of Southern Maine's total economic output in 2019 (roughly 2% of total regional output) (Table 16). Over 7,600 jobs were supported by the sector and $370 million in labor income. Unlike the other two regions, the bulk of direct jobs were supported by the retail industry sector (over 4,000), while harvesting (all species wild caught) supported roughly 1,270 jobs in 2019. In total, just under 6,300 jobs were directly supported by the seafood sector in Southern Maine, while another 1,300 jobs were supported through other indirect and induced multiplier effects.

Table 16: Economic Impact Summary for the Southern Region

Industry	Employment	Labor Income ($M)	Value Added ($M)	Gross Output ($M)
Aquaculture	137	$3.7	$11.7	$12.2
Harvest Non-lobster	270	$17.3	$18.5	$20.0
Harvest Lobster	947	$62.1	$66.3	$71.9
Processing``	275	$14.7	$19.6	$147.2
Retail	4,041	$152.7	$223.1	$354.6
Wholesale Distribution & Logistics	611	$36.1	$48.1	$118.2
Total Direct	6,281	$286.5	$387.3	$724.2
Indirect (all other)	440	$31.7	$50.8	$113.9
Induced	882	$51.6	$98.8	$175.5
Total	7,603	$369.8	$536.9	$1,013.6

Inland Maine

The presence of the seafood sector in the Inland regions of Maine is primarily in the retail consumption supporting 1,700 jobs, while another 20 jobs are supported by inland fish hatcheries (Table 17). These jobs provided $49 million in labor income. In total, over $200 million in economic output was supported by the seafood sector in noncoastal counties in the state that make up the Inland region.

Table 17: Economic Impact Summary for the Inland Region

Industry	Employment	Labor Income ($M)	Value Added ($M)	Gross Output ($M)
Aquaculture	21	$5.4	$9.4	$9.8
Retail	1,704	$43.2	$67.2	$116.5
Total Direct	1,725	$48.6	$76.6	$126.4
Indirect (all other)	214	$10.6	$17.3	$36.9
Induced	429	$12.4	$22.8	$40.2
Total	2,368	$71.6	$116.8	$203.4

4.4 Unspecified Location Values

Approximately $120 million of landed value in non-lobster harvesting and $65 million in lobster harvesting landed value had an unidentified geographic location in the DMR data (Table 18). We have no basis for allocating these impacts to a specific region, and so we report the value of these outputs in a separate category. We do not report employment for these unidentified location values on the assumption that the harvesting employment is captured elsewhere in the data.

Table 18: Economic Impact Summary of Unidentified Regional Activity

Industry	Labor Income ($M)	Value Added ($M)	Gross Output ($M)
Harvest Non-lobster	$99.1	$112.2	$124.7
Harvest Lobster	$54.3	$61.4	$68.3
Wholesale Distribution & Logistics	$0.8	$1.0	$2.3
Total Direct	154	175	195
Indirect (all other)	$4.6	$8.3	$17.3
Induced	$46.8	$83.4	$146.0
Total	$205.5	$266.4	$358.6

4.5 The Seafood Sector in Regional Economic Context

The analysis of the seafood sector's size also raises a question of the role of the sector in each of the regions. As noted, the economic impacts are largest in the Downeast region, followed by the Midcoast and then the Southern region. It is also important to show the importance of the sector in the overall economy of each of these regions. For that purpose, the seafood sector was compared with total employment, value added, and output for each of the regions. The results are shown in Figure 3, which shows that almost 20% of employment in the Downeast region is directly or indirectly related to seafood. This compares to about 9% in the Midcoast and 2% in the Southern Region. Seafood accounts for almost 12% of labor income in Downeast and 7% of value added. This concentration of the seafood industry in the rural economies of Hancock and Washington counties is one of the key findings of this analysis.

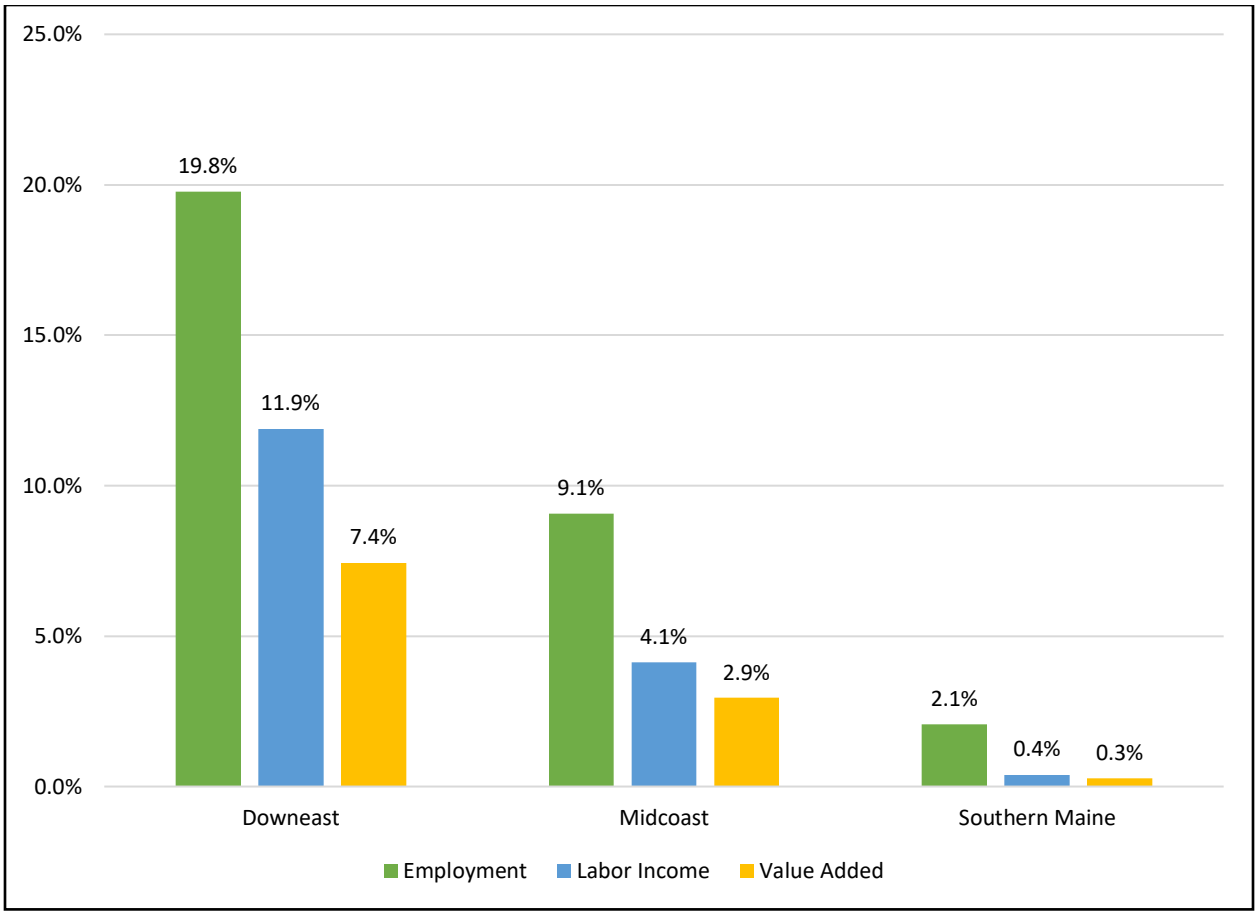

Figure 3: Relative Size of Seafood Sector in Maine Regions

5 Fiscal Impacts

The seafood sector supported an estimated $449 million in tax revenues in 2019, including local, state, and federal. The sector supported nearly $91 million in local (county aggregate) tax revenues and $110 million in state tax revenues. A total of $248 million in federal tax revenues were also supported.

Table 13 shows the break down across value chain industries. Of the total, $127 million in state and local tax revenues were supported from direct effects of the seafood sector value chain industries, with another $74 million in state and local tax revenues supported from indirect and induced effects. Retail had the largest contribution to state and local taxes totaling $66 million, followed by $43 million from harvesting (all species).

Table 19: Tax Revenue Impacts of the Seafood Sector in Maine

SeaMaine Industry Impact	Local	State	Federal	Total
Aquaculture	$3.22	$5.12	$9.52	$17.87
Harvesting (Non-lobster)	$4.00	$7.75	$22.36	$34.11
Harvesting (Lobster)	$11.26	$19.79	$56.34	$87.39
Processing	$1.38	$1.92	$7.53	$10.83
Retail	$33.08	$32.74	$58.73	$124.55
Wholesale & Logistics	$2.70	$3.72	$14.17	$20.59
Total Direct	$55.6	$71.1	$168.7	$295.3
Indirect (all other)	$10.43	$12.19	$28.34	$50.97
Induced	$24.89	$26.71	$51.29	$102.89
Total	**$90.96**	**$109.96**	**$248.29**	**$449.20**

6 Discussion and Conclusions

This study has estimated the economic dimensions of the seafood sector in Maine, including harvesting, processing, distribution, and retailing for capture fisheries and aquaculture. The best available data shows that in 2019:

- The sector directly employed 23,800 people, with a multiplier effect of an additional 9,400 jobs for a total impact of 33,300 jobs.
- These jobs accounted for $1.3 billion in labor income, of which $967 million was for direct jobs in the industries.
- On $2.2 billion in sales, the sector directly contributed $1.4 billion in valued added contribution to the Maine Gross State Product and contributed a total of $1.9 billion in value to multiplier effects.

Compared to other parts of the Maine economy, the seafood sector in 2019 was the largest natural resource-based industry:

- Total seafood direct employment would have been larger than forest products, as well as the combination of agriculture and other food products manufacturing.
- Total seafood value added is also larger than paper and wood manufacturing, and farming plus other food products.

It is also important to emphasize that the estimates in this report are likely to be *underestimates*. A large number of aquaculture operations are not incorporated in the data, only retail outlets (markets and restaurants) requiring a DMR license are included, and marine recreational fishing has been excluded entirely.

This study focused on a single year of data: 2019. This is because of the substantial amount of customized data construction that must be done to measure the economy of the food sector which had to be developed. The year 2019 was selected to avoid using data from a year affected by the Covid pandemic. But understanding the effects of the pandemic is still important. For that purpose, employment data from the Department of Labor for the major seafood industries as defined by the North American Industrial Classification System from 2018Q1 to 2022Q1 are shown in Figure 3. To smooth out the seasonal variations, a four-quarter moving average is used.

This analysis, which should be considered preliminary, shows that seafood markets have grown in employment since 2019, with little interruption from the pandemic. Processors and aquaculture in the Department of Labor data have declined slightly as measured by the Department of Labor data, but these trends were apparent before the pandemic. Seafood wholesalers and restaurants (on the right-hand vertical axis) did show significant drops from the pandemic, and neither industry has recovered to pre-pandemic levels. Note that these figures are for all restaurants; a future analysis needs to look at seafood restaurants in more detail.

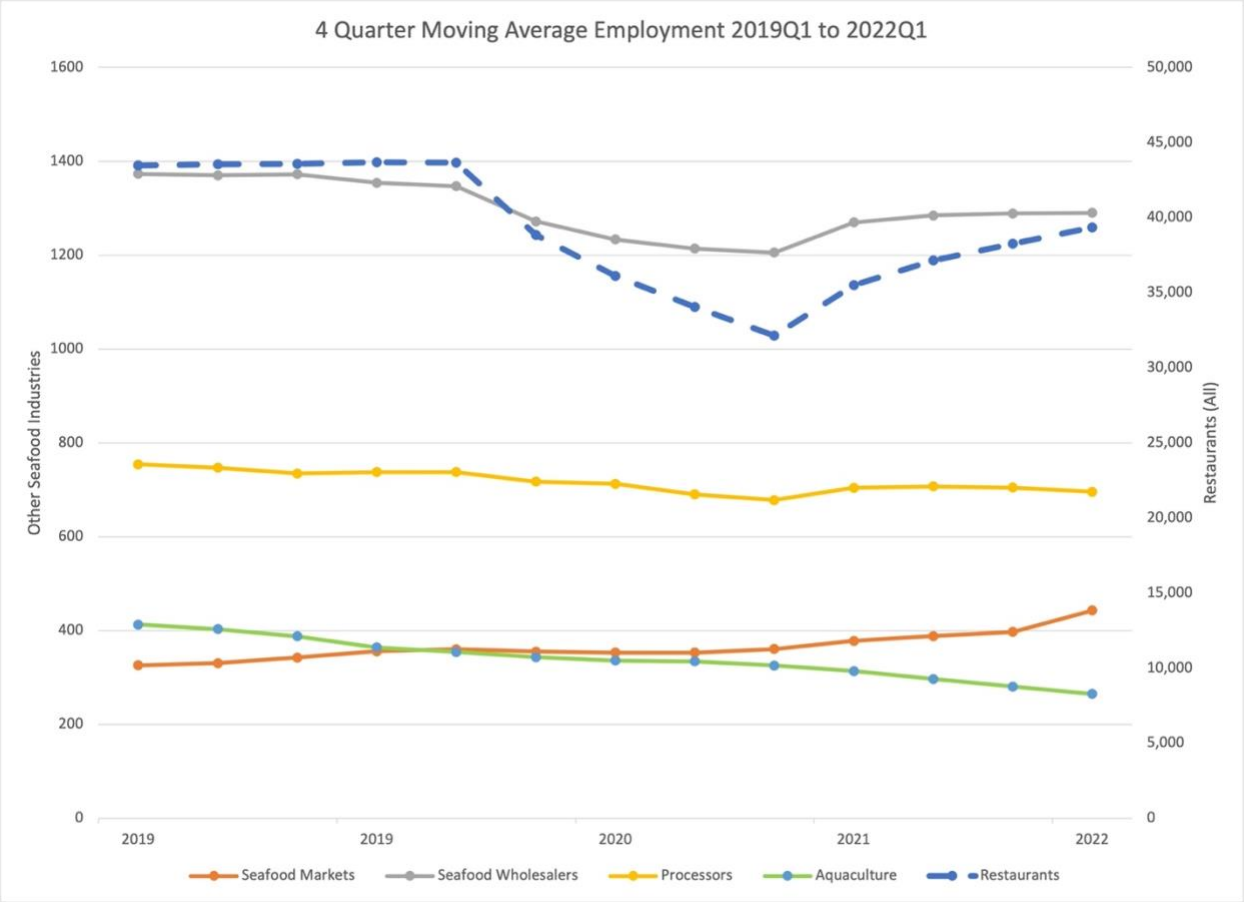

Figure 4: Trends in Employment in Major Seafood Industries

As this brief discussion of trends indicates, the snapshot of the industry presented in this study can only serve as a baseline against which to measure future changes. This report should be considered a supplement to the study conducted for SeaMaine by Gardner-Penfold. Key steps for continuing to understand the economic evolution of the seafood industries include:

1. Annual Updates
    - Employment data for the industries included in the Department of Labor industry data as in Figure 3.
    - Department of Marine Resources lobster and non-lobster licensing data to approximate employment in harvesting using the unique identifier method for non-lobster licenses.

- Landings and landed value data from the Department of Marine Resources

2. Improve measures

   As noted at several points in this study, the economic data for fisheries in the U.S. and in Maine is much weaker than for other industries, in large part because the economic structure of fisheries is different with a large proportion of proprietors, casual labor, seasonality and geographic flexibility. The inter-industry relationships are poorly measured in the Economic Census which is taken every five years and uses a national sample that often includes very few firms from a small state like Maine. Two projects could greatly improve the economic data for fisheries in Maine.

   The first would be to add a simple survey to the harvesting license renewal process asking for the number of days in the previous year that were actually spent fishing. The question could be set up as a single choice question from defined ranges to make answering quick. The answer to this question would convert license information into labor participation information providing a much more accurate measure of employment.

   The second would be to conduct a more detailed survey of fishing and aquaculture enterprises to measure total output (in the case of aquaculture) and in the case of inputs and costs for all harvesting enterprises. Such surveys are complex to administer because they are best done with online surveys or with survey diaries and with voluntary participation from a sample. A detailed study of the aquaculture industry is currently under development. The results of these studies would provide much more accurate measures of the economic impacts of the harvesting sector. For the processing, wholesale, transport, and retail sectors, standard impact models such as IMPLAN (used here) are adequate. These types of studies are complex and can be expensive and so should be done no more than every five years.

7 Data Sources

7.1 Quarterly Census of Employment and Wages

The primary data source for aquaculture, seafood processing, wholesale and logistics, and retail industries come from the Maine Department of Labor Center for Workforce Research and Information (CWRI) Quarterly Census of Employment and Wages (QCEW) establishment-level microdata. CBER was provided access to the establishment-level employment and wage data from which customized industry sectors and geographic regions were used to calculate direct employment and wage effects. Businesses are categorized in the QCEW by industry according to the North American Industry Classification System (NAICS) hierarchy. Included industries and concordance with the seafood sector are shown below.

Table 20: Seafood Sector Industry Data Map

Sector Industry	NAICS Industry	NAICS Code	Data Source	Model Inputs	IMPLAN Sector
Aquaculture	Finfish farming and fish hatcheries	112511	QCEW, DMR	Emp, wages	14
	Shellfish farming	112512	QCEW, DMR	Emp, wages	14
	Other aquaculture	112519	QCEW, DMR	Emp, wages	14
Harvesting - Lobster	Commercial Fishing	114111	DMR	Landed value (output)	17
Harvesting - All other species	Commercial Fishing	114111	DMR	Landed value (output)	17
Seafood Processing	Frozen specialty food manufacturing	311412	QCEW, DMR	Emp, wages	92
	Seafood product preparation and packaging	311710	QCEW, DMR	Emp, wages	92
Boatbuilding	Boat Building and Repairing	336612	DMR	Output	361
Wholesale & Logistics	Fish and Seafood Merchant Wholesalers	424460	QCEW, DMR	Emp, wages	398
	Specialized Trucking (Local)	484220	QCEW, DMR	Emp, wages	398
Retail	Supermarkets	445110	QCEW, DMR	10% of Emp, wages	406
	Fish and Seafood Markets	445220	QCEW, DMR	Emp, wages	406
	Full service restaurants	722511	QCEW, DMR	Emp, wages	509
	Limited service restaurants	722513	QCEW, DMR	Emp, wages	510

7.2 The IMPLAN Economic Model

The estimation of economic impacts utilizes IMPLAN — a commonly used proprietary input-output economic model that represents the sales and purchases of goods and services in the economy from raw inputs to end consumer. IMPLAN uses a variety of federal data sources to map the relationships between industries and consumers which allows a user to analyze the spending flows of an economic activity, whether individual firm, set of businesses, event, or policy, across a defined regional economy. The IMPLAN model used in for this analysis is based on county and state level data for Maine. Counties are further aggregated into regions to abide by confidentiality requirements for using QCEW data. More information on IMPLAN can be found at support.implan.com.

Definitions

Measuring Economic Impacts

Economic impact analysis attempts to quantify the net change to an economy that is a result of a business(es), policy, event, or in this case of an industry sector. From another perspective, economic impact analysis attempts to capture the hole left in the state and regional economies if the seafood sector did not exist. Economic impacts are generally characterized as the primary economic effects stemming from the object being analyzed and the secondary or multiplier effects from recurring rounds of spending in the defined economy.

Direct effects include the primary effects from employment and operations of seafood sector businesses across the value chain.

Indirect effects are secondary effects that result from the operational spending of seafood sector businesses on suppliers and vendors and the recurring rounds of spending that accrues. Indirect effects are also referred to as intermediate effects.

Induced effects are secondary effects from spending of employee wages from both seafood sector businesses as well as from wages of employees of suppliers and vendors spent in the local economy. Induced effects are also referred to as local consumption effects.

Economic Impact Indicators

Economic impacts are reported across several common indicators that include employment (jobs), labor income, value added, and output.

Employment is estimated as the number of jobs, both full-time and part-time, and includes wage and salaried employees, sole proprietors, and active partners. Employment is reported as inclusive of both the number of full-time (FT) and part-time (PT) jobs. Both FT and PT jobs are counted with equal weight and are not distinguished by the model, which is commonly reported in government-reported employment data as well as other economic models.

Labor Income measures the value of all employment derived income in the region. It is inclusive of wages and benefits of employees (employee compensation) or total payroll cost to an employer, as well as proprietor income, or income derived from self-employed workers, sole proprietors, partnerships, and tax-exempt cooperatives.

Value Added is a measure of economic value and is equivalent to the industry's contribution to gross domestic product (GDP). Value added includes all labor income, as well as taxes on production and imports and other property income. Conversely, it is total output less intermediate inputs to production.

Economic Output is a measure of the total value of all goods and services produced. Output includes all labor income, value added, as well as intermediate inputs to production. Total output can also be interpreted as total industry sales.

7.3 Online Data Sources

Department of Marine Resources

Data Access Portal with Mapping

https://dmr-maine.opendata.arcgis.com/

Data Sets in Open Data Portal

https://maine.maps.arcgis.com/home/group.html?id=b451a68027b542958df0d6634f73af4f#overview

Aquaculture Leasing Data

https://maine.maps.arcgis.com/apps/webappviewer/index.html?id=b846cf37b1d64c988f89eafa085c8b7a

Department of Labor

https://www.maine.gov/labor/cwri/qcew.html

8 Appendix: Using License Data for Estimated Harvesting and Aquaculture Employment

A major challenge facing all studies of the seafood sector, particularly the industries involving harvesting seafood through fishing as well as the more recent activities of aquaculture is that the standard government data series do not cover most people employed in the fishing industry in Maine. This industry is generally exempt from the unemployment insurance laws, which are the basis for the most detailed employment data available. Other methods must be used, the most important of which is the licensing data from the Department of Marine Resources.

This data is available from DMR for each individual license. The challenge is to convert licenses to individuals, assign the individuals to the relevant fishery and determine the location of activity. Adjustments must be made for people holding multiple licenses. It is also necessary to exclude licenses held by those who do not reside in Maine or who have licenses for non-commercial uses such as recreation or education. In 2019 there were 17,766 licenses for fishing, of which 8,923 were for lobstering; 2,791 for groundfish, pelagics, and anadromous; and 6,048 all other species. The employment total reported here of 12,700 was the difference between the total number of licenses and the total number of individuals.

Individuals were identified by dividing harvesting into three major groups: lobstering; commercial fishing for groundfish, pelagic, and anadromous species; and all other species. In each of these groups a unique identifier was calculated. The first name, last name, and date of birth (in Julian format, or the day number since 1/1/1900) was created. For example, John Doe, born on July 4, 1980, would have an identifier of doejohn29406. These unique identifiers were then examined for duplicate licenses held within each group and duplicate licenses counted as 1. The result of unique identifier and a single license then comprised the employment count.

This analysis has two potential limitations. One is the possibility of an individual holding licenses in more than one group. However, the groups are organized by major gear type so multiple licenses are not expected to be large. The other problem is that having a license does not guarantee actual participation in fishing activity. It is likely, in fact, that part time employment is more common than full time employment. All this indicates that any serious investigation of employment in Maine fisheries should be grounded in a more thorough investigation of multiple job holding as well as part- and full-time participation.

A somewhat similar problem exists with aquaculture. Some aquaculture firms, particularly the larger ones, are covered by unemployment insurance and their employees are counted in the aquaculture industry data reported by the Department of Labor. But many other aquaculture operations are quite small or are operated by larger organizations and included in their overall employment data. To estimate the employment in aquaculture not covered by DOL, we used data from the limited purpose aquaculture (LPA) licenses. These are licenses for small scale (up to 400 square feet) operations which may be for research, education, or commercial purposes. For this analysis, licenses for research and education were excluded[3] and the remaining licenses were reorganized to estimate the number of individuals rather than the number of licenses. Because of the size of these sites, it is possible for one person or organization to hold more than one LPA license. The resulting count of individuals with commercial LMA licenses was

[3] Aquaculture conducted for research or education should be reported as part of those industries, not aquaculture.

200 statewide. These were added to the DOL counted employment. However, we kept the wages at the same level because many of these LPA pay little compensation or pay it as contract or self-employment.

From: tomi plummer
To: Comments
Subject: [External] Measure
Date: Wednesday, September 25, 2024 12:04:43 PM

As a maine fishermen this measure increase is non sense. I've caught more illegal lobsters in my traps this year than ever before. The research team needs to expand their search for lobsters. The smaller lobsters are alot closer to shore and in shallow waters. Further research needs to be completed before you go and completely decimate our way of life.

From: travis faulkingham
To: Comments
Subject: [External] Lobster draft addendum 31
Date: Saturday, October 5, 2024 7:58:41 AM

Hello there
Please don’t pass this measure change, there are so many small lobsters that we are seeing, more than we typically see this year. Lots of fishermen are selling out and retiring, 2 currently in our town that caught lots and 1 that passed away, maybe others plan to sell out also. Close the licenses first, and even if we are somehow over fishing which I don’t feel we are, but if we are, just let us keep going, the windmills and other rules will cause more people to sell out and choose other work, if we are catching less then hopefully we will get a higher price. Changing the measure size isn’t going to help it’s going to cause my catch to be less and less income for my family of 6. Open more lobster hatcheries if there are really actually less lobsters growing up—- there must be money for it somewhere as the DMR marine patrol seems to keep getting very expensive new boats and upgrades for what? They should be spending more time at the docks and zipping around in small fast boats rather than getting massive boats in my opinion.
Thanks for your time, I hope someone reads this. For any questions please reach out.
FV Farrah Marie
Offshore lobsterman
Travis Faulkingham
207-266-8551
Sent from my iPhone

From: Waylon Merchant
To: Comments
Subject: [External] Lobster Draft Addendum 31
Date: Saturday, October 5, 2024 12:49:51 PM

I support the postponing of the Addendum 27

From: Wayne Delano
To: Comments
Subject: [External] Addendum xxx1
Date: Sunday, October 6, 2024 8:14:45 PM

Im a Lobster fishermen from Friendship maine Please consider this addendum to delay the guage increase.
Im opposed to This increase it will be devastating to myself and the Lobster industry.
DEFINITELY IF ANY INCREASE WAS TO HAPPEN IT SHOULD BE SMALLER IMCREMNTS!
That would definitely make this easier for us to work with, but indefinitely postponing any increase would be best for all of us in the industry.
Thank you
Wayne Delano

From: Will Mitchell
To: Comments
Subject: [External] Lobster draft addendum 31
Date: Saturday, October 5, 2024 3:53:33 PM

I support the proposed postponement of the implementation date for the biological measures outlined in Addendum XXVII until July 1, 2025. This extension is a prudent decision that allows for better coordination with Canadian lobster fishery management, helping to mitigate potential negative impacts on both U.S. and Canadian industries.

By aligning our timelines, we can ensure that both fisheries can adapt effectively to changes in regulations, particularly regarding the minimum gauge size and escape vent sizes. This approach recognizes the complexities of cross-border fishing dynamics and prioritizes the sustainability of the GOM/GBK stock without compromising our conservation goals.

Moreover, this delay provides essential time to collect additional data, allowing us to assess the health of the lobster population more accurately. Having more robust data will help clarify whether there truly is a significant decline and support informed decision-making.

Delaying these measures until July will also provide the industry and gauge makers ample time to prepare, minimizing disruptions during critical fishing periods. Overall, this thoughtful consideration demonstrates a commitment to collaborative and effective management practices, benefiting all stakeholders involved.

From: wilsonhboone@gmail.com
To: Comments
Subject: [External] Opposition to gauge change
Date: Sunday, October 6, 2024 7:23:22 AM

Hello,
I am a commercial fisherman and have been harvesting lobster as crew out of Vinalhaven Maine for the past 21 years. I do not support the gauge increase and hope that a delay until July of 2025 will be enacted. I believe this delay will enable more data to be utilized in the final decision on this issue and I also believe that ultimately a gauge change will not necessarily affect settlement. A gauge change will however negatively impact an industry already beset on multiple sides by regulation, decline in catch, high expenses and a struggle to find workers.
Thank you.
Wilson Boone
MLA Member
Vinalhaven Fishermen's CO/OP Board Member

Sent from my iPhone

Atlantic States Marine Fisheries Commission

1050 N. Highland Street • Suite 200A-N • Arlington, VA 22201
703.842.0740 • 703.842.0741 (fax) • www.asmfc.org

MEMORANDUM

TO: **American Lobster Management Board**

FROM: **American Lobster Advisory Panel**

DATE: **October 1, 2024**

SUBJECT: **Advisory Panel Report**

The American Lobster Advisory Panel (AP) met via webinar on Monday, September 23rd, 2024. The purpose of the meeting was 1) to present the annual data update for lobster abundance indicators to the AP, and 2) to review Draft Addendum XXXI to Amendment 3 to the American Lobster Fishery Management Plan and gather input from the lobster advisors on the proposed management options. The addendum considers postponing measures for Lobster Conservation and Management Area (LCMA) 1, 3 and the Outer Cape Cod (OCC) area that were triggered under Addendum XXVII.

Lobster AP Attendance
Grant Moore (Chair, MA)
Jon Carter (ME)
Jeff Putnam (ME)
Eben Wilson (ME)
Robert Nudd (NH)
John Whittaker (CT)
Arthur (Sooky) Sawyer (MA)
Todd Alger (MA)
John Fullmer (NJ)

The following is a summary of the AP discussions on each topic. **The AP members in attendance made a consensus recommendation to adopt Draft Addendum XXXI, Option B.**

Annual Data Update
The Technical Committee (TC) Chair, Tracy Pugh, presented the annual data update to the AP, followed by questions and discussion. Some advisors commented that there are areas the surveys do not cover that have a lot of lobsters, and they should be sampled. One advisor commented that there is too much focus inshore when there should be more sampling offshore.

The advisors also asked about the current status of the trigger index from Addendum XXVII. The TC Chair presented it, showing the 2023 value has declined further. It was clarified that there is no longer any management action associated with this index since Addendum XXVII has already passed and the trigger level was already reached last year.

Draft Addendum XXXI
AP members provided input on which of the proposed options in Draft Addendum XXXI they support and why. There was consensus among the advisors on the preferred management

options. All advisors in attendance supported Option B, postpone implementation of the Addendum XXVII measures. Reasons given for this preference included significant concerns about the negative impacts of the gauge increase in LCMA 1 to the industry if smaller lobster can come in from Canada, a desire to see an economic analysis of the measures' impacts, and also that they have been observing much higher abundances of sublegal lobsters ranging across age classes and females with eggs, both inshore and offshore. Two advisors said the proposed delay is better than no delay, but they do not think the gauge needs to change at all.

Bobby Nudd described what he has been seeing where he fishes. He said he has seen a drastic increase in the number of sublegals and eggers, with the increase being larger in 2023. The lobsters represent a large range of sizes, not just one or two year classes. If all of these lobsters are showing up now, it means they had to have settled somewhere over the last few years, but the signal was not picked up in the settlement surveys. Grant Moore also said that offshore they have small lobsters spilling out of traps in quantities they have never seen before. They used to only catch very large lobster offshore, but now there are a range of ages out there, both on top of Georges Bank and in deeper water.

The advisors also discussed engagement with the Lobster Conservation Management Teams (LCMTs). They took issue with the fact that the LCMTs were not involved in developing management measures for the Gulf of Maine LCMAs. The FMP established the LCMTs to get industry acceptance of lobster management by developing measures from the bottom up, but Addendum XXVII was developed top-down.

ATLANTIC STATES MARINE FISHERIES COMMISSION

REVIEW OF THE INTERSTATE FISHERY MANAGEMENT PLAN

FOR AMERICAN LOBSTER
(*Homarus americanus*)

2023 FISHING YEAR

Prepared by the Plan Review Team

October 2024

Sustainable and Cooperative Management of Atlantic Coastal Fisheries

Table of Contents

1.0 Status of the Fishery Management Plan

Year of ASMFC Plan's Adoption:	Amendment 3 (1997)
Plan Addenda:	
Addendum II (2001)	Addendum XVI (2010)
Addendum III (2002)	Addendum XVII (2012)
Addendum IV (2003)	Addendum XVIII (2012)
Addendum V (2004)	Addendum XIX (2013)
Addendum VI (2005)	Addendum XX (2013)
Addendum VII (2005)	Addendum XXI (2013)
Addendum VIII (2006)	Addendum XXII (2013)
Addendum IX (2006)	Addendum XXIII (2014)
Addendum X (2007)	Addendum XXIV (2015)
Addendum XI (2007)	Addendum XXVI (2018)
Addendum XII (2008)	Addendum XXIX (2022)
Addendum XIII (2008)	Addendum XXVII (2023)
Addendum XIV (2009)	Addendum XXX (2024)
Addendum XV (2009)	
Management Unit:	Maine through North Carolina
States with a Declared Interest:	Maine through Virginia (Excluding Pennsylvania and DC)
Active Committees:	American Lobster Management Board, Technical Committee, Lobster Conservation Management Teams, Plan Development Team, Plan Review Team, Advisory Panel, Stock Assessment Subcommittee

2.0 Status of the Fishery

2.1 Commercial Fishery

The lobster fishery has seen incredible expansion in landings over the last 40 years. Between 1950 and 1975, landings were fairly stable around 30 million pounds; however, from 1976 to 2008 the average coastwide landings tripled, exceeding 98 million pounds in 2006. Landings continued to increase until reaching a high of 159 million pounds in 2016, but have been trending downward since then (Table 1). In 2023, coastwide commercial landings were approximately 120 million pounds, a 1% decrease from 2022 landings of 121 million pounds. The largest contributors to the 2022 fishery were Maine and Massachusetts with 80% and 13% of landings, respectively. The ex-vessel value for all lobster landings in 2023 was approximately $517.6 million, which is a 21% increase from 2022.

Historically, Lobster Conservation Management Area (LCMA) 1 has had the highest landings, and accounted for 80% of total harvest between 1981 and 2012. This is followed by LCMA 3 which accounted for 9% of total landings during the same time period. In general, landings have

increased in LCMA 1 and have decreased in LCMAs 2, 4, and 6. According to state compliance reports, in 2023, approximately 93% of the total landings came from LCMA 1, while the remaining 7% were contributed by the other LCMAs[1]. A map of the LCMAs is found in Figure 1.

Landings trends between the two biological stocks have also changed, as a greater percentage of lobster are harvested from the Gulf of Maine/Georges Bank (GOM/GBK) stock. In 1997, 26.3% of coastwide landings came from the Southern New England (SNE) stock. However, as the southern stock declined and abundance in the Gulf of Maine increased, proportional harvest has significantly changed. In 2000, only 15.6% of landings came from the SNE stock and by 2006, this declined to 7%. In 2023, only about 1.3% of coastwide landings came from the SNE stock[1].

2.2 Recreational Fishery

Lobster is also taken recreationally with pots, and in some states, by hand while SCUBA diving. While not all states collect recreational harvest data, some do report the number of pounds landed recreationally and/or the number of recreational permits issued. In 2023, New Hampshire reported 5,446 pounds of lobster harvested recreationally and New York reported 866 pounds. Maine, Rhode Island, and Connecticut do not collect information on the number of pounds recreationally harvested. For 2023, Rhode Island issued 506 lobster licenses, and 216 lobster licenses were sold in Connecticut in 2022. In general, recreational activity appears to be declining in recent years.

3.0 Status of the Stock

The recent 2020 American Lobster Benchmark Stock Assessment presents contrasting results for the two American lobster stock units, with record high abundance and recruitment in the Gulf of Maine and Georges Bank stock (GOM/GBK) and record low abundance and recruitment in the Southern New England stock (SNE) in recent years.

The assessment found that abundance estimates for the GOM/GBK stock show an increasing trend beginning in the late 1980s. After 2008, the rate of increase accelerated to a record high abundance level in 2018, the terminal year of the assessment. The GOM/GBK stock shifted from a low abundance regime during the early 1980s through 1995 to a moderate abundance regime during 1996-2008, and shifted once again to a high abundance regime during 2009-2018 (Figure 2). Current spawning stock abundance and recruitment and are near record highs. Exploitation (commercial landings relative to stock abundance) declined in the late 1980s and has remained relatively stable since.

The GOM/GBK stock is in favorable condition based on the new recommended reference points adopted by the Board (Table 2). The average abundance from 2016-2018 was 256 million lobster, which is greater than the fishery/industry target of 212 million lobster. The average

[1] These value does not include data from Massachusetts, which were not provided.

exploitation from 2016-2018 was 0.459, below the exploitation target of 0.461. Therefore, the GOM/GBK lobster stock is not depleted and overfishing is not occurring.

In contrast to GOM/GBK, model results for SNE show a completely different picture of stock health. Abundance estimates in SNE have declined since the late 1990s to record low levels. Model estimates of recruitment and spawning stock biomass have also declined to record low levels. Analysis of these estimates indicates a declining trend in stock productivity, indicating reproductive rates are insufficient to sustain a stable population at current exploitation rates. Exploitation of the SNE stock was high and stable through 2002, declined sharply in 2003, and has remained lower and stable since.

Based on the new abundance threshold reference point, the SNE stock is significantly depleted. The average abundance from 2016-2018 was 7 million lobster, well below the threshold of 20 million lobster (Table 2, Figure 3). However, according to the exploitation reference points the SNE stock is not experiencing overfishing. The average exploitation from 2016-2018 was 0.274, falling between the exploitation threshold of 0.290 and the exploitation target of 0.257. The assessment and peer review panel recommended significant management action be taken to provide the best chance of stabilizing or improving abundance and reproductive capacity of the SNE stock.

A benchmark assessment is ongoing and expected for completion in 2025.

4.0 Status of Management Measures

4.1 Implemented Regulations

Amendment 3 established regulations which require coastwide and area specific measures applicable to commercial fishing (Table 3). The coastwide requirements from Amendment 3 are summarized below; additional requirements were established through subsequent Addenda.

Coastwide Requirements and Prohibited Actions

- Prohibition on possession of berried or scrubbed lobsters
- Prohibition on possession of lobster meats, detached tails, claws, or other parts of lobsters by fishermen
- Prohibition on spearing lobsters
- Prohibition on possession of v-notched female lobsters
- Requirement for biodegradable “ghost” panel for traps
- Minimum gauge size of 3-1/4”
- Limits on landings by fishermen using gear or methods other than traps to 100 lobsters per day or 500 lobsters per trip for trips 5 days or longer
- Requirements for permits and licensing
- All lobster traps must contain at least one escape vent with a minimum size of 1-15/16” by 5-3/4”
- Maximum trap size of 22,950 cubic inches in all areas except area 3, where traps may not exceed a volume of 30,100 cubic inches.

Amendment 3 to the Interstate Fishery Management Plan for American Lobster (December 1997)

American lobster is managed under Amendment 3 to the Interstate FMP for American Lobster. Amendment 3 establishes seven lobster management areas. These areas include the: Inshore Gulf of Maine (LCMA 1), Inshore Southern New England (LCMA 2), Offshore Waters (LCMA 3), Inshore Northern Mid-Atlantic (LCMA 4), Inshore Southern Mid-Atlantic (LCMA 5), New York and Connecticut State Waters (LCMA 6), and Outer Cape Cod (OCC). Lobster Conservation Management Teams (LCMTs) comprised of industry representatives were formed for each management area. The LCMTs are charged with advising the Lobster Board and recommending changes to the management plan within their areas.

Amendment 3 also provides the flexibility to respond to current conditions of the resource and fishery by making changes to the management program through addenda. The commercial fishery is primarily controlled through minimum/maximum size limits, trap limits, and v-notching of egg-bearing females.

Addendum I (August 1999)

Establishes trap limits in the seven LCMAs.

Addendum II (February 2001)

Establishes regulations for increasing egg production through a variety of LCMT proposed management measures including, but not limited to, increased minimum gauge sizes in LCMAs 2, 3, 4, 5, and the Outer Cape.

Addendum III (February 2002)

Revises management measures for all seven LCMAs in order to meet the revised egg-rebuilding schedule.

Technical Addendum 1 (August 2002)

Eradicates the vessel upgrade provision for LCMA 5.

Addendum IV (January 2004)

Changes vent size requirements; applies the most restrictive rule on an area trap cap basis without regard to the individual's allocation; establishes LCMA 3 sliding scale trap reduction plan and transferable trap program to increase active trap reductions by 10%; and establishes an effort control program and gauge increases for LCMA 2; and a desire to change the interpretation of the most restrictive rule.

Addendum V (March 2004)

Amends Addendum IV transferability program for LCMA 3. It establishes a trap cap of 2200 with a conservation tax of 50% when the purchaser owns 1800 to 2200 traps and 10% for all others.

Addendum VI (February 2005)

Replaces two effort control measures for LCMA 2 – permits an eligibility period.

Addendum VII (November 2005)
Revises LCMA 2 effort control plan to include capping traps fished at recent levels and maintaining 3 3/8" minimum size limit.

Addendum VIII (May 2006)
Establishes new biological reference points to determine the stock status of the American lobster resource (fishing mortality and abundance targets and thresholds for the three stock assessment areas) and enhances data collection requirements.

Addendum IX (October 2006)
Establishes a 10% conservation tax under the LCMA 2 trap transfer program.

Addendum X (February 2007)
Establishes a coastwide reporting and data collection program that includes dealer and harvester reporting, at-sea sampling, port sampling, and fishery-independent data collection replacing the requirements in Addendum VIII.

Addendum XI (May 2007)
Establishes measures to rebuild the SNE stock, including a 15-year rebuilding timeline (ending in 2022) with a provision to end overfishing immediately. The Addendum also establishes measures to discourage delayed implementation of required management measures.

Addendum XII (February 2009)
Addresses issues which arise when fishing privileges are transferred, either when whole businesses are transferred, when dual state/federal permits are split, or when individual trap allocations are transferred as part of a trap transferability program. In order to ensure the various LCMA-specific effort control plans remain cohesive and viable, this addendum does three things. First, it clarifies certain foundational principles present in the Commission's overall history-based trap allocation effort control plan. Second, it redefines the most restrictive rule. Third, it establishes management measures to ensure history-based trap allocation effort control plans in the various LCMAs are implemented without undermining resource conservation efforts of neighboring jurisdictions or LCMAs.

Addendum XIII (May 2008)
Solidifies the transfer program for OCC and stops the current trap reductions.

Addendum XIV (May 2009)
Alters two aspects of the LCMA 3 trap transfer program. It lowers the maximum trap cap to 2000 for an individual that transfers traps. It changes the conservation tax on full business sales to 10% and for partial trap transfers to 20%.

Addendum XV (November 2009)
Establishes a limited entry program and criteria for Federal waters of LCMA 1.

Addendum XVI: Reference Points (May 2010)
Establishes new biological reference points to determine the stock status of the American lobster resource (fishing mortality and abundance targets and thresholds for the three stock assessment areas). The addendum also modifies the procedures for adopting reference points to allow the Board to take action on advice following a peer reviewed assessment.

Addendum XVII (February 2012)
Institutes a 10% reduction in exploitation for LCMAs within Southern New England (2, 3, 4, 5, and 6). Regulations are LCMA specific but include v-notch programs, closed seasons, and size limit changes.

Addendum XVIII (August 2012)
Reduces traps allocations by 50% for LCMA 2 and 25% for LCMA 3.

Addendum XIX (February 2013)
Modifies the conservation tax for LCMA 3 to a single transfer tax of 10% for full or partial business sales.

Addendum XX (May 2013)
Prohibits lobstermen from setting or storing lobster traps in Closed Area II from November 1 to June 15 annually. Any gear set in this area during this time will be considered derelict gear. This addendum represents an agreement between the lobster industry and the groundfish sector.

Addendum XXI (August 2013)
Addresses changes in the transferability program for LCMAs 2 and 3. Specific measures include the transfer of multi-LCMA trap allocations and trap caps.

Addendum XXII (November 2013)
Implements Single Ownership and Aggregate Ownership caps in LCMA 3. Specifically, it allows LCMA 3 permit holders to purchase lobster traps above the cap of 2000 traps; however, these traps cannot be fished until approved by the permit holder's regulating agency or once trap reductions commence. The Aggregate Ownership Cap limits LCMA fishermen or companies from owning more traps than five times the Single Ownership Cap.

Addendum XXIII (August 2014)
Updates Amendment 3's habitat section to include information on the habitat requirements and tolerances of American lobster by life stage.

Addendum XXIV (May 2015)
Aligns state and federal measure for trap transfer in LCMA's 2, 3, and the Outer Cape Cod regarding the conservation tax when whole businesses are transferred, trap transfer increments, and restrictions on trap transfers among dual permit holders.

Addendum XXVI (February 2018)
Advances the collection of harvester and biological data in the lobster fishery by improving the spatial resolution of data collection, requiring harvesters to report additional data elements, and establishing a deadline that within five years, states are required to implement 100% harvester reporting. The Addendum also improves the biological sampling requirements by establishing a baseline of ten sampling trips per year, and encourages states with more than 10% of coastwide landings to conduct additional sampling trips. Required reporting of additional data elements went into effect on January 1, 2019. The Addendum XXVI requirement for commercial harvesters to report their fishing location by 10 minute longitudinal/latitudinal square was implemented in 2021.

Addendum XXIX (2022)
Implements electronic tracking requirements for federally-permitted vessels in the American lobster and Jonah crab fisheries to collect high resolution spatial and temporal effort data. Specifically, electronic tracking devices will be required for vessels with commercial trap gear area permits for LCMAs 1, 2, 3, 4, 5, and Outer Cape Cod. Requirements will become effective in 2023.

Addendum XXVII (2023)
Establishes a trigger mechanism to implement management measures (gauge and escape vent sizes) to provide additional protection of the GOM/GBK spawning stock biomass (SSB). It also implements changes to management measures for LCMAs 1, 3, and Outer Cape Cod to improve the consistency of measures across the GOM/GBK stock.

Addendum XXX (2024)
Clarifies the Commission's recommendation to NOAA Fisheries that the increased minimum gauge size in LCMA 1 triggered under Addendum XXVII would also apply to foreign imports of American lobster.

5.0 Fishery Dependent Monitoring
The following provisions of Addendum XXVI went into effect January 1, 2019:

- Required reporting of additional data elements;
- Requirement to implement 100% harvester reporting within five years;
- Baseline biological sampling requirement of ten sea and/or port sampling trips per year.

The Addendum XXVI requirement for commercial harvesters to report their fishing location by 10 minute longitudinal/latitudinal square was implemented in 2021. Table 4 describes the level of reporting and monitoring programs by each state. *De minimis* states are not required to conduct biological sampling of their lobster fishery.

In recent years it has been a challenge for the states whose lobster fisheries primarily occur in SNE to complete the required ten required sea and/or port sampling trips for fishery dependent monitoring. In 2023, Rhode Island, Connecticut, and New Jersey were unable to meet the requirement. Rhode Island completed nine out of ten trips. New Jersey completed zero trips

and continues to have difficulty with vessel Captains accommodating an observer aboard. No fishery dependent sampling has been conducted by Connecticut since 2014 due to reductions in funding and staffing levels. Table 5 provides data on the amount of sampling performed by state.

6.0 Status of Fishery Independent Monitoring

Addendum XXVI also requires fishery independent data collection by requiring statistical areas be sampled through one of the following methods: annual trawl survey, ventless trap survey, or young-of-year survey.

7.1 Trawl Surveys

Maine and New Hampshire: The Maine-New Hampshire Inshore Trawl survey conducted by Maine Department of Marine Resources began in 2000 and covers approximately two-thirds of the inshore portion of Gulf of Maine. The spring survey began on May 2, 2023, a day later than intended due to storms. Region 1 was still completed by beginning in Portland, ME, then moving south to cover the stations off NH, before going back north. The spring survey finished June 1, 2023, off Lubec, Maine. Due to weather and gear conflicts, 97 out of the 120 scheduled tows were completed leading to an 81% completion rate for the survey. A total of 10,826 lobsters were caught and sampled, with 5,080 females, 5,739 males, 6 unsexed, and 1 gynandromorph caught and measured (Figure 4). The fall survey began on September 25, 2023 in Portsmouth, New Hampshire and finished on October 27, 2023 off of Lubec, Maine. Due to the adverse weather and gear conflicts, 78 out of the 120 scheduled tows were completed leading to a 65% completion rate for the survey. A total of 11,516 lobsters were caught and sampled, with 5,620 females, 5,894 males, and 2 unknown sexes caught and measured (Figure 5).

Massachusetts: Since 1978, the Division of Marine Fisheries has conducted spring and autumn bottom trawl surveys in the territorial waters of Massachusetts. This survey has run continuously since 1978, with the sole exception of 2020, when neither the spring nor fall survey took place due to Covid-19 restrictions. After low levels observed in the GOM during the early to mid-2000s, relative abundance indices have increased over the last decade but have declined in recent years, with declines evident in the sublegal sizes a couple years prior to declines in the legal sizes. Sublegal-sized abundance has been at or below the median for the past four years with data (no data in 2020). Legal abundance has remained above the time series median since 2015, although the 2022 and 2023 values were much closer to the median than the previous six years. In SNE, relative abundance from the spring and fall surveys remains low. There were no lobsters observed in the SNE spring surveys, and no legal-sized lobsters observed in the fall survey in 2023 (Figure 6).

Rhode Island: The Rhode Island DFW Trawl Survey program conducted seasonal surveys in the spring and fall, as well as a monthly survey. In 2023, 44 trawls were conducted in the Spring and 44 in the Fall. Monthly Survey includes monthly trawls throughout Narragansett Bay. There were 143 trawls performed as part of the Monthly program in 2023. Spring 2023 mean CPUEs were 0.02 and 0.23 for legal and sub legal lobsters, respectively, and Fall 2023 CPUE was 0.00

for legal lobsters and 0.16 for sublegal lobsters. The 2023 mean monthly trawl CPUEs were 0.05 and 0.27 per-tow for legal and sublegal lobsters, respectively (Figure 7).

Connecticut and New York: Juvenile and adult abundance are monitored through the Long Island Sound Trawl Survey during the spring (April, May, June) and the fall (September, October) cruises all within NMFS statistical area 611. Due to the COVID-19 pandemic, the spring and fall 2020 Long Island Sound Trawl Surveys were not conducted; an estimated index is shown as the average of 2019 and 2021. The spring 2023 lobster abundance index (geometric mean = 0 lobsters/tow) was the lowest in the time series. Spring abundance in the last 12 years (2011-2023) remains less than 1.0. All indices from 2004-2022 are below the time series median (2.76). The fall 2022 lobster abundance index (geometric mean = 0.0128 lobsters/tow) is derived from the collection of one, sublegal male and was a slight improvement from 2019 when no lobsters were caught in September and October. The fall time series median (3.03) has not been exceeded since 2004. Both legal and sublegal-size lobster abundance have declined with similar trajectory (Figure 8).

New York: New York initiated a stratified random trawl survey in the near shore ocean waters off the south shore of Long Island in 2018 from the Rockaways to Montauk Point and the New York waters of Block Island Sound. Three sampling cruises were conducted in 2023. These cruises took place during the spring (May, June) and fall (October, November). Twenty-eight stations were sampled during the cruise in May, and twenty-nine stations were sampled during the June cruise. During the fall, twenty-five stations were sampled in October and four stations were sampled in November. Eleven lobsters were caught during the 2023 surveys.

New Jersey: An independent Ocean Trawl Survey is conducted from Sandy Hook, NJ to Cape May, NJ each year. The survey stratifies sampling in three depth gradients, inshore (18'-30'), mid-shore (30'-60'), offshore (60'-90'). The mean CPUE is calculated as the sum of the mean number of lobsters per size class collected in each sampling area weighted by the stratum area. The 2023 CPUE is a decrease from the 2022 value (Figure 9).

Delaware, Maryland, and Virginia conduct bottom trawl surveys but lobster catch is very rare.

7.2 Young of Year Index

Several states conduct young-of-year (YOY) surveys to detect trends in abundance of newly-settled and juvenile lobster populations. These surveys attempt to provide an accurate picture of the spatial pattern of lobster settlement. States hope to track juvenile populations and generate predictive models of future landings.

Maine: There are currently 40 fixed stations along the Maine coast. Of these 40 stations 38 have been sampled consistently since 2001 with two additional sites added to Zone D, off midcoast Maine, in 2005. In recent years, these sites are sampled October to December. Only 35 sites were sampled in 2023 due to staffing and weather limitations. Sites were selected based on orientation to surface winds, position in bays, water temperature during settlement period (for eastern Maine sites) and presence of suitable habitat. A new R script was developed

in 2022 to pull the data directly from Maine's MARVIN archive database to create a replicable and transparent data query, but these numbers differ slightly from past data pulled. Cut-off values for YOY vary by year. In 2022, it was identified that 2013 data had not been uploaded correctly previously so the numbers are different from previous reports (Figure 10).

New Hampshire: New Hampshire Fish and Game conducted a portion of the coastwide American Lobster Settlement Index (ALSI). In 2023, a total of 40 juvenile lobsters were sampled from three sites; 33 older juveniles, 4 young-of-year (YOY) lobster, and 3 one-year-old (Y+). Figure 11 depicts the CPUE (#/m2) of all sampled lobsters, YOY and Y+, for all New Hampshire sites combined from 2008 through 2023. For each of these indices, CPUE shows a general upward trend to a time series high in 2011 with sustained moderate to low levels from 2012 through 2023 (Figure 11).

Massachusetts: Annual sampling for early benthic phase/juvenile (EBP) lobsters was conducted during August and September, 2023. As of 2023, suction sampling is conducted in the GOM stock unit at 10 sites from Cape Ann to the South Shore area, and in the SNE stock unit at 4 sites in Buzzards Bay. In 2023 densities of YOY lobsters remained below time series means in all sampling regions within the GOM. However, densities in Salem Sound, one of the longest sampled regions in GOM, have been improving since time series lows in the 2010s, trending upwards over the last few years. In SNE there were no YOY lobsters found in the Buzzards Bay sampling locations in 2023 (Figure 12).

Rhode Island: In 2023, the RI DEM DMF YOY Settlement Survey (Suction Sampling) was conducted at six fixed stations with twelve randomly selected 0.5 m^2 quadrats sampled at each survey station. The survey stations are located outside of Narragansett Bay along the southern Rhode Island coast, from Sachuest Point (east) to Point Judith (west). The index represents the average annual densities for YOY (≤ 13mm) and total lobsters caught (Figure 13). The 2023 YOY Settlement Survey index was 0.03 lobsters/m2, and with all lobsters was 0.09 lobsters/m2.

Connecticut: The CT DEEP Larval Lobster Survey in western Long Island Sound was discontinued after 2012. Alternative monitoring data are available for the eastern Sound from the Millstone Power Station entrainment estimates of all stages of lobster larvae. Abundance indices in both programs are delta mean density of larvae per 1000 cubic meters of water, entrained into the power plant in the case of the Millstone program and stage 4 only captured in surface plankton samples in the CT DEEP program. Both programs show a protracted decline in recruitment following the 1999 die-off. Note, the 2022 value (0.251 Δ-mean density) for the eastern Sound represents one observed stage IV larvae in all samples obtained. The 2023 value (0.480 Δ-mean density), although the highest since 2006, only represents two observed stage III lobster larvae in all samples obtained (Figure 14).

7.3 Ventless Trap Survey

To address a need for a reliable index of lobster recruitment, a cooperative random stratified ventless trap survey was designed to generate accurate estimates of the spatial distribution of

lobster length frequency and relative abundance while attempting to limit the biases identified in conventional fishery dependent surveys.

Maine: The Maine Ventless Trap Survey changed strategies in 2015 to cover more area by eliminating the vented traps at each site. This change allowed the survey to double the number of sites with ventless traps and increase the sampling coverage spatially to 276 sites. Traps were set during the months of June, July, and August. The stratified mean was calculated for each area using depth and statistical area for ventless traps only. Compared to the previous years, in 2023 the number of sublegal (<83 mm CL) lobsters caught increased slightly in the NH-Friendship area (513), stayed the same in the Schoodic Point to Friendship area (512), and decreased in the Schoodic Pt-Cutler area (511). The number of legal sized (≥ 83 mm CL) lobsters caught remained the same in areas 513 and 512, and decreased in 511 (Figure 15).

New Hampshire: Since 2009, NHF&G has been conducting the coastwide Random Stratified Ventless Trap Survey in state waters (statistical area 513). A total of six sites were surveyed twice a month from June through September in 2023. Catch per unit effort (stratified mean catch per trap haul) from 2009 through 2023 is presented in Figure 16. Annual stratified mean catch per trap haul values varied without significant positive or negative trend throughout the fourteen year time series.

Massachusetts: The coastwide ventless trap survey was initiated in 2006 and expanded in 2007 with the intention of establishing a standardized fishery-independent survey designed specifically to monitor lobster relative abundance and distribution. The survey was not conducted in 2013 due to a lack of funding; however, starting in 2014 the survey has been funded with lobster license revenues and will continue as a long-term survey.

The time series of relative abundance for sublegal (< 83 mm CL) and legal-sized (≥ 83 mm CL) lobsters for Area 514 (part of LMA 1) is shown in Figure 17 as the stratified mean CPUE (± S.E.). Note that the MA index includes data from both vented and non-vented traps, and includes all four survey months (June – Sept). The average catch of sublegal lobsters is much higher than the catch of legal-sized lobsters, and generally increased from 2006 through 2016 but has been declining since, with values from the last five years (2019-2023) falling below the time series average of 4.38 sublegal lobsters/trap. The stratified mean catch per trap of legal-sized lobsters in 2023 was 0.52 (± 0.01), and was below the time series average of 0.56.

The time series of relative abundance (stratified mean CPUE ± S.E.) for sublegal (<86 mm CL) and legal-sized (≥ 86 mm CL) lobsters in the Area 538 (MA SNE survey area) is shown in Figure 18. Note that due to survey changes for the MA SNE survey region in 2021, the entire MA SNE time series now represents June – August only, first haul of the month, and only those stations that occurred in the reduced survey footprint. The mean sublegal CPUE in 2023 was 0.56 (± 0.06), well below the time series average of 1.79 sublegal lobsters/trap haul. The CPUE of legal-sized lobsters in 2023 was 0.32 (±0.08), very close to the time series average of 0.33 legal lobsters/trap haul.

Rhode Island: Rhode Island conducted the 2023 ventless trap survey in June, July, and August at a total of 27 stations divided between Block Island Sound, Rhode Island Sound, and Narragansett Bay Over the 18 trips and 848 pots (ventless and vented) hauled, 2,108 lobsters were sampled. The depth-stratified abundance index of sublegal lobsters in the 2023 survey, 2.99 lobsters per ventless trap, remains below the time series mean of 5.71 lobsters per ventless trap. The abundance index for legal-sized lobsters, at 0.47 lobsters per ventless trap, is above the time series mean of 0.38 lobsters per ventless trap (Figure 19).

Delaware: A pilot study was initiated in 2018 to assess the population structure of structure-oriented fish in the lower Delaware Bay and nearshore Atlantic Ocean. Sampling was conducted in the lower Delaware Bay and the nearshore Atlantic Ocean using commercial-sized ventless fish pots during April through December 2023. Eight American Lobsters were caught in lower Delaware Bay and 486 American Lobsters in the nearshore Atlantic Ocean with a ratio of 60% males, 36% female and 4% egg laden. The sampled American Lobsters ranged in length from 52 mm to 140 mm.

8.0 State Compliance

States are currently in compliance with all required biological management measures under Amendment 3 and Addendum I-XXIV. However, the Plan Review Team (PRT) notes that Connecticut and New Jersey and did not conduct sea/port sampling in 2023, as required by Addendum XXVI. Rhode Island did conduct sampling, but was unable to complete the ten required trips.

9.0 De Minimis Requests

The states of Virginia, Maryland, and Delaware have requested *de minimis* status. According to Addendum I, states may qualify for *de minimis* status if their commercial landings in the two most recent years for which data are available do not exceed an average of 40,000 pounds. Delaware, Maryland, and Virginia meet the *de minimis* requirement.

10.0 Regulatory Changes

Maine

- As of January 1st, 2023, 100% electronic harvester reporting is mandatory for all commercial lobster license holders.
- In the 2023 fishing year, Maine DMR adopted rules to incorporate the requirements in Addendum XXIX (American Lobster) and Addendum IV (Jonah crab) that were approved by the Atlantic States Marine Fisheries Commission (ASMFC) in March 2022. Specifically, for compliance with the Interstate Fisheries Management Plans, this regulation requires all federally-permitted lobster and Jonah crab vessels with commercial trap gear area permits to have electronic tracking devices.

Connecticut

- Regulations of Connecticut State Agencies (Title 26. Sec 26-157c-1 through 26-157c-4) were amended in 2022 to include both the LMA6 seasonal closure, lobster trap vent size requirement and minimum size carapace length.
- Connecticut is in the regulatory process to implement electronic tracking device requirements for federally-permitted lobster and Jonah crab vessels with commercial trap gear area permits.

11.0 Enforcement Concerns

Maine

- In 2023, Maine Marine Patrol Officers documented 299 lobster-related violations, with 66 being summonses. Marine Patrol's highest profile cases in 2023 were four individuals being charged with molesting lobster gear, 1 harvester found in possession of 23 short lobsters, and 1 individual determined to be fishing lobster traps beyond the Area 1 limit of 800. 33 individuals were issued violations for fishing untagged lobster traps with the most egregious violation being 56 untagged traps. Officers continue to prioritize lobster enforcement at sea illustrated by the documentation of more than 20,000 inspected lobster traps, between traps hauled and lobster boat boardings. The majority of other violations were associated with the possession of illegal lobsters, lobster license violations, and protected resource related gear violations.

New Jersey

- One summons was issued for each other the following: deploying lobster traps within a closed artificial reef area, failure to properly mark traps set on an artificial reef, and failure to notify enforcement prior to deploying lobster traps on an artificial reef.

New York

- In 2023, New York had three infractions. This included lobster traps with improper vents, landing improper size lobsters from LMA 4, and landing lobsters without a state permit on a trawler.

12.0 Research Recommendations

The full list of research recommendations can be found in the 2020 Stock Assessment Report. Below is a summarized list of the high priority research recommendations from the 2020 Stock Assessment that were compiled by the Lobster Technical Committee (TC) and Stock Assessment Subcommittee (SAS).

Port and Sea Sampling - The quality of landings data has not been consistent spatially or temporally. Limited funding, and in some cases, elimination of sea sampling and port sampling programs will negatively affect the ability to characterize catch and conservation discards, limiting the ability of the model to accurately describe landings and stock conditions. It is imperative that funding for critical monitoring programs continues, particularly for offshore areas from which a large portion of current landings originate in SNE. Sea sampling should be increased in Long Island Sound (statistical area 611), and in the statistical areas in

federal waters, particularly those fished by the LCMA 3 fleet, via a NMFS-implemented lobster-targeted sea sampling program.

Commercial Data Reporting – Finer resolution spatial data are paramount in understanding how landings align between statistical area and LCMAs. Vessel tracking is recommended for federal vessels. Once in place, the new spatial data should be analyzed for comparison to current spatial understanding of harvest. The growing Jonah crab fishery in SNE continues to complicate the differentiation of directed lobster versus Jonah crab effort. More sea sampling and landings data must be collected to better differentiate the two fisheries' activities.

Ventless Trap Survey - Calibration work to determine how catch in the ventless trap surveys relates to catch in the bottom trawl surveys remains an important and unaddressed topic of research. Ventless traps may be limited in their ability to differentiate between moderately high and extremely high abundance, and calibration with bottom trawl surveys may help to clarify how q might change with changes in lobster density.

NEAMAP Trawl Survey Protocols - The SAS recommends that the NEAMAP Trawl Survey sampling protocol be modified for all lobsters caught to be sorted by sex. If a subsample is necessary, subsamples be taken by sex for additional biological data (size, egg presence and stage, vnotch, etc.) This modification would align the biological sampling methodology with other trawl surveys used in the assessment, and perhaps allow the survey to not be collapsed by sex into survey slots.

Time Varying Growth - Growth of American lobster has been found to change through time (McMahan et al. 2016), yet the ability to incorporate this dynamic in the assessment model currently is unavailable. Accounting for interannual changes in the growth matrix, including those in increment, probability, and seasonality, is imperative for model convergence. Modification to the assessment model is needed to allow for time varying growth matrices to be used to reflect changing growth in the stocks.

Expansion of Growth Matrices - Exploration of expanding the model size structure to smaller sizes could allow the SAS to better capture changes in recruitment for the population by incorporating < 53mm lobster abundances from the surveys currently used, as well as incorporating additional surveys that currently are not model inputs for the assessment, such as those from the young of year settlement surveys. Due to decreased recruitment in SNE and some areas in GOMGBK, available survey data should be evaluated to determine whether current data sources for small sizes are sufficient for expanding the size structure and growth matrices.

Temperature-Molt Dynamics - Understanding how the timing for molting, molt increments, and probability by size vary with temperature for all stocks would allow for more accurate and realistic depictions of growth via updated annual growth matrices. The work of Groner et al. (2018) should be expanded by using the Millstone data to specifically analyze how molt frequency and increment has changed seasonally and interannually.

Larval Ecology - Spatial expansion of larval surveys and further testing is warranted, particularly in areas like the eastern GOM and GBK that lack any studies of this nature. Studies that explore greater spatial coverage of larval sampling and examine lobster larval diets, in situ development time in current conditions, larval interactions with well-mixed versus stratified water columns, and varying growth and mortality with temperature would allow for greater context on these variables' influence on recruitment.

Deepwater Settlement - There is a need to determine settlement success in habitat not currently sampled and its contribution to overall stock productivity. Research needs to explore the levels of detectability, impact of stratification, and interannual temperature effects on the indices. Additionally, it will be important to understand whether there are differences in growth and survival in these deeper habitats, particularly relative to the desire to expand the growth matrix into smaller size ranges for modeling purposes.

SNE Recruitment Failure - The direct cause of the precipitous declines in recruitment under less variable spawning stock biomass is largely unknown. Research designed to understand the causes driving recruitment failure is vital for any efforts toward rebuilding the SNE stock. In addition, being able to predict similar conditions in GOMGBK could allow management the opportunity to respond differently.

Stock Structure Working Group - The SAS recommends that a workshop on stock boundaries be convened prior to the initiation of the next assessment to review results of any new research and re-evaluate appropriate stock boundaries. Inclusion of Canadian researchers at this workshop would be beneficial to share data and knowledge on this shared resource.

Spatial Analyses of Fisheries-Independent Data – Northeast Fisheries Science Center (NEFSC) trawl survey data remains one of the richest data sources to understand abundance and distribution patterns through time for lobsters by size and sex. Formal analyses of NEFSC trawl survey and the ME/NH trawl survey and should be performed. The Ecosystem Monitoring (EcoMon) Program's larval lobster information should also be considered.

Reevaluate Baseline Natural Mortality Rate - Intensive hypothesis-driven sensitivity analyses should be conducted to evaluate the base mortality rate for both stocks by season and year. Canadian tagging data should be examined to determine how natural mortality rates derived from these data compare to the assumptions used currently in the model and sensitivity analyses. Exploration of additional time series representing natural mortality hypotheses (e.g. sea temperature, shell disease prevalence, predators) should be continued to either inform time-varying natural mortality or correlate to rates produced in sensitivity analyses.

Predation Studies - It is suspected that a given predator's role in lobster natural mortality has changed through time. Predation laboratory studies and gut content analyses would provide greater guidance on individual species' roles in lobster natural mortality. With this information, predation-indices as a function of predator annual abundances and their contribution to stock-specific lobster mortality would be immensely valuable, particularly in SNE.

Management Strategy Evaluation - Developing a true management strategy evaluation tool that can iteratively project and refit the operating model would best inform future management discussions on rebuilding the SNE stock or providing resiliency for the GOM stock and fishery.

Economic Reference Points - Economic analyses considering landings, ex-vessel value, costs, associated economic multipliers, number of active participants, and other factors are imperative to truly discern how declines in the population would impact the GOMGBK industry. The SAS strongly recommends a thorough economics analysis be conducted by a panel of experts to more properly inform economic-based reference points, and ultimately provide resiliency to both the GOMGBK stock and fishery.

13.0 Plan Review Team Recommendations

During their review of the state compliance reports, the PRT noted the following issues:

- Massachusetts was unable to provide a compliance report including all required data by the August 1 deadline[2].
- In 2023, Rhode Island, Connecticut, and New Jersey, did not meet the Addendum XXVI minimum requirement of ten sea/port sampling trips. Given persistent issues with states being unable to meet the sampling requirement, the Board should consider how to address this issue moving forward.

The PRT Recommends the Board approve the *de minimis* requests of DE, MD, and VA. Other than the issues noted above, all states appear to be in compliance with the requirements of the FMP.

The following are general recommendations the PRT would like to raise to the Board:

- The PRT recommends the Board consider reviewing the monitoring requirements in SNE given the status of the stock and the difficulty obtaining sea sampling trips in a fishery with reduced effort. The TC has discussed the need for additional sampling trips in federal waters as the fishery has shifted offshore. The Stock Assessment Subcommittee is considering this issue as part of the ongoing stock assessment.

[2] Data for Massachusetts that were not available for this report will be added at a later date.

14.0 Tables

Table 1. Landings (in pounds) of American Lobster by the states of Maine through Virginia. Source: ACCSP Data Warehouse for 1981-2022 landings; state compliance reports for 2023 landings. *C= confidential data.*

	ME	NH	MA	RI	CT	NY	NJ	DE	MD	VA	Total
1981	22,631,614	793,400	11,420,638	1,871,067	807,911	890,218	593,801	55,700	63,108	2,173	39,129,630
1982	22,730,253	807,400	11,265,840	3,173,650	880,636	1,121,644	846,215	90,700	64,788	4,713	40,985,839
1983	21,976,555	1,310,560	12,867,378	5,114,486	1,654,163	1,207,442	769,913	56,700	76,192	20,619	45,054,008
1984	19,545,682	1,570,724	12,446,198	5,259,821	1,796,794	1,308,023	927,474	103,800	98,876	37,479	43,094,871
1985	20,125,177	1,193,881	13,702,702	5,140,131	1,381,029	1,240,928	1,079,723	118,500	82,295	42,881	44,107,247
1986	19,704,317	941,100	12,496,125	5,667,940	1,253,687	1,416,929	1,123,008	109,000	57,593	93,105	42,862,804
1987	19,747,766	1,256,170	12,856,301	5,317,302	1,571,811	1,146,613	1,397,138	84,100	49,820	60,241	43,487,262
1988	21,739,067	1,118,900	12,977,313	4,758,990	1,923,283	1,779,908	1,557,222	66,200	22,966	53,696	45,997,545
1989	23,368,719	1,430,347	15,645,964	5,786,810	2,076,851	2,344,932	2,059,800	76,500	17,502	45,107	52,852,532
1990	28,068,238	1,658,200	16,572,172	7,258,175	2,645,951	3,431,111	2,198,867	68,300	24,941	58,260	61,984,215
1991	30,788,646	1,802,035	15,998,463	7,445,172	2,673,674	3,128,246	1,673,031	54,700	26,445	7,914	63,598,326
1992	26,830,448	1,529,292	14,969,350	6,763,087	2,534,161	2,651,067	1,213,255	21,000	27,279	753	56,539,692
1993	29,926,464	1,693,347	14,350,595	6,228,470	2,177,022	2,667,107	906,498	24,000	46,650	2,940	58,023,093
1994	38,948,867	1,650,751	16,176,551	6,474,399	2,146,339	3,954,634	581,396	8,400	7,992	460	69,949,789
1995	37,208,324	1,834,794	15,903,241	5,362,084	2,541,140	6,653,780	606,011	25,100	26,955	5,210	70,166,639
1996	36,083,443	1,632,829	15,312,826	5,295,797	2,888,683	9,408,519	640,198	20,496	28,726	C	71,311,517
1997	47,023,271	1,414,133	15,010,532	5,798,529	3,468,051	8,878,395	858,426	C	34,208	2,240	82,487,785
1998	47,036,836	1,194,653	13,167,803	5,617,873	3,715,310	7,896,803	721,811	1,359	19,266	1,306	79,373,020
1999	53,494,418	1,380,360	15,875,031	8,155,947	2,595,764	6,452,472	931,064	C	41,954	6,916	88,933,926
2000	57,215,406	1,709,746	14,988,031	6,907,504	1,393,565	2,883,468	891,183	C	62,416	C	86,051,319
2001	48,617,693	2,027,725	11,976,487	4,452,358	1,329,707	2,052,741	579,753	C	31,114	C	71,067,578
2002	63,625,745	2,029,887	13,437,109	3,835,050	1,067,121	1,440,483	264,425	C	20,489	C	85,720,309
2003	54,970,948	1,958,817	11,321,324	3,561,391	C	946,449	209,956	C	22,778	C	72,991,663
2004	71,574,344	4,076,845	11,675,852	3,059,319	646,994	996,109	370,536	13,322	14,931	27,039	92,455,291
2005	68,729,813	C	11,291,145	3,174,852	713,901	1,154,470	369,003	C	39,173	21,988	85,494,345
2006	75,420,639	2,612,389	12,102,232	4,355,690	806,135	1,252,146	470,878	3,706	26,349	28,160	97,078,324
2007	63,987,476	2,468,811	10,046,445	2,299,744	568,696	911,761	334,097	C	26,804	C	80,643,834
2008	69,911,680	2,568,088	10,606,534	2,782,000	427,168	712,075	304,479	C	32,932	C	87,344,955
2009	81,124,149	2,986,981	11,789,758	2,842,088	412,468	731,811	C	6,064	30,618	21,472	99,945,409
2010	96,247,042	3,648,004	12,772,983	2,928,688	441,622	813,513	692,910	C	29,149	16,345	117,590,257
2011	104,957,939	3,919,195	13,385,902	2,754,067	198,928	344,232	698,205	8,879	41,057	12,879	126,321,283
2012	127,464,536	4,229,227	14,486,428	2,706,384	247,857	550,441	919,351	C	65,579	10,823	150,680,627
2013	128,015,530	3,817,707	15,259,573	2,155,762	127,420	496,535	660,367	C	62,601	9,061	150,604,556
2014	124,941,312	4,374,656	15,312,852	2,412,875	127,409	222,843	526,368	26,330	57,414	11,099	148,013,158
2015	122,685,783	4,721,826	16,450,853	2,316,458	205,099	147,414	445,060	22,894	29,284	9,474	147,034,145
2016	132,749,768	5,782,098	17,784,921	2,260,335	254,346	218,846	349,880	C	29,254	2,854	159,432,301
2017	112,153,095	5,645,434	16,493,125	2,031,143	130,015	150,317	409,062	32,364	29,136	1,630	137,075,319
2018	121,226,471	6,199,365	17,697,243	1,905,689	110,580	112,685	344,547	C	24,893	2,727	147,624,201
2019	102,227,148	6,093,615	17,029,462	1,795,212	111,573	112,107	291,072	C	11,831	1,840	127,673,859
2020	97,916,077	5,014,169	15,711,853	1,695,279	159,173	111,678	309,197	11,098	10,176	C	120,938,700
2021	110,697,747	5,712,222	16,826,952	1,351,415	148,758	109,117	290,981	6,193	12,827	3,099	135,159,312
2022	98,777,569	5,262,127	14,907,099	1,189,045	88,654	81,950	266,612	C	13,336	C	120,586,393
2023	96,536,642	6,088,954	15,890,702	1,116,390	124,250	105,542	264,495	C	8,518	C	120,135,493

Table 2. Above: Current (2016-2018) reference abundance estimates (millions), current target and threshold abundance (millions), and new recommended abundance reference points for both stocks. Below: Current (2016-2018) exploitation, current target and threshold exploitation, and new recommended target and threshold exploitation for both stocks.

Quantity	GOMGBK	SNE
Current (2016-2018 average)	256	7
Current Target	119	32
Current Threshold	58	25
Fishery/Industry Target	212	NA
Abundance Limit	125	NA
Abundance Threshold	89	20

Quantity	GOMGBK	SNE
Current (2016-2018 average)	0.459	0.274
Current Target	0.457	0.379
Current Threshold	0.510	0.437
Recommended Target	0.461	0.257
Recommended Threshold	0.475	0.290

Table 3. 2023 LCMA specific management measures

Management Measure	LCMA 1	LCMA 2	LCMA 3	LCMA 4	LCMA 5	LCMA 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. No v-notching 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]	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[2]	February 1-March 31[3]	Sept 8-Nov 28[4]	February 1-April 30

[1] A v-notched lobster is defined as any female lobster that bears a notch or indentation in the base of the flipper that is at least as deep as 1/8", with or without setal hairs. It also means any female which is mutilated in a manner that could hide, obscure, or obliterate such a mark.

[2] Pots must be removed from the water by April 30 and un-baited lobster traps may be set one week prior to the season reopening.

[3] During the February 1 – March 31 closure, trap fishermen will have a two week period to remove lobster traps from the water and may set lobster traps one week prior to the end of the closed season.

[4] Two week gear removal and a 2 week grace period for gear removal at beginning of closure. No lobster traps may be baited more than 1 week prior to season reopening.

Table 4. 2023 sampling requirements and state implementation. All states have 100% active harvester reporting. Sufficient sea sampling can replace port sampling. *De minimis* states (denoted by *) are not required to conduct biological sampling of their lobster fishery.

State	100% Dealer Reporting	100% Harvester Reporting	Sea Sampling	Port Sampling	Ventless Trap Survey	Settlement Survey	Trawl Survey
ME	✓	✓	✓		✓	✓	✓
NH	✓	✓	✓	✓	✓	✓	✓
MA	✓	✓	✓		✓	✓	✓
RI	✓	✓	✓	✓	✓	✓	✓
CT	✓	✓	[a]	[a]		[b]	✓
NY	✓	✓	✓	✓			✓
NJ	✓	✓					✓
DE*	✓	✓			✓		✓
MD*	✓	✓	✓				✓
VA*	✓	✓					✓

[a] No fishery dependent sampling has been conducted by CT since 2014 due to reductions in funding and staffing levels.

[b] Larval data are available for the eastern Sound (ELIS) from the Millstone Power Station entrainment estimates of all stages of lobster larvae (Dominion Nuclear CT, Annual Report 2016).

Table 5. 2023 sea and port sampling trips and samples by state. *De minimis* states (denoted by *) are not required to conduct biological sampling of their lobster fishery.

State	**Sea Sampling**			**Port Sampling**		**Totals**	
	Trips	Samples	Traps	Trips	Samples	Trips	Samples
ME	160	184,150	36,812	0	0	160	184,150
NH	14	7,601	NA	11	1,099	25	8,700
MA	67	27,957	12,025	0	0	67	27,957
RI	1	360	195	8	2,172	9	2,532
CT	0	0	0	0	0	0	0
NY	0	0	0	18	1,830	18	1,830
NJ	0	0	0	0	0	0	0
DE*	0	0	0	0	0	0	0
MD*	1	71	60	0	0	1	71
VA*	0	0	0	0	0	0	0
Total	243	220,139	49,092	37	5,101	280	225,240

15.0 Figures

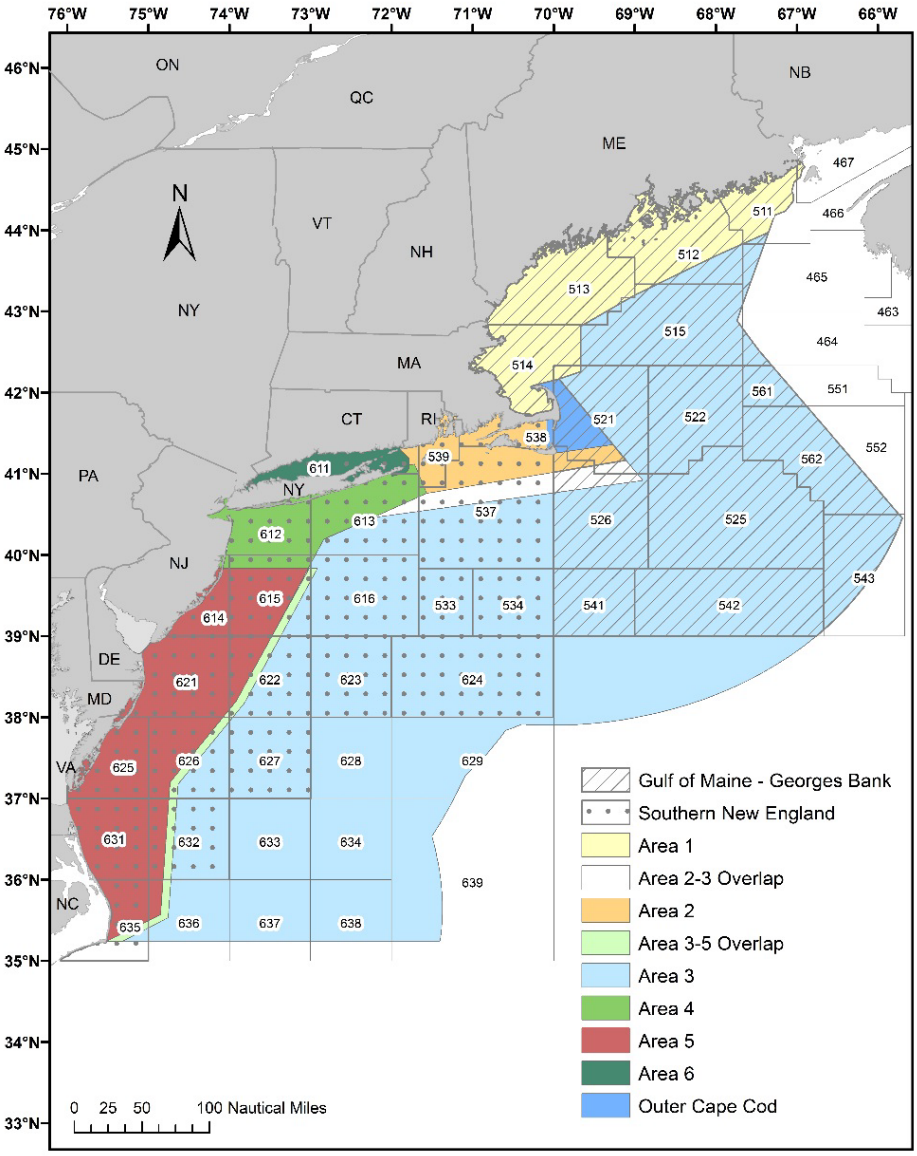

Figure 1. Lobster Conservation Management Areas (LCMAs) and stock boundaries for American lobster.

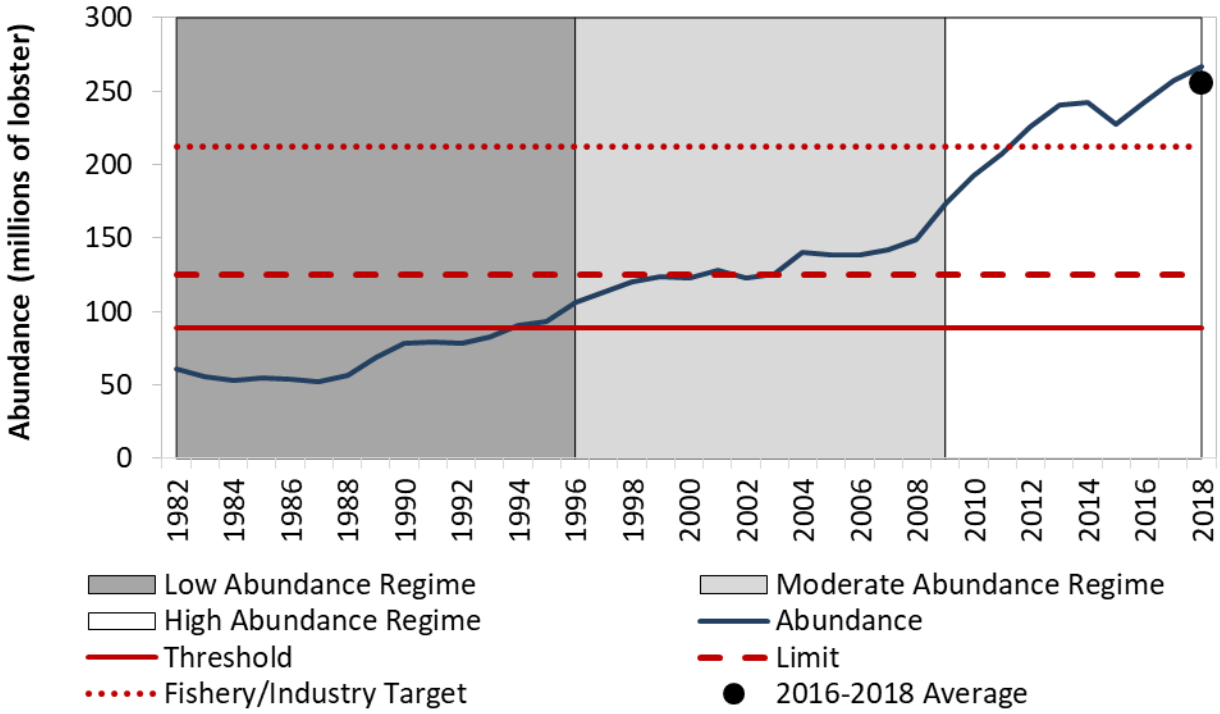

Figure 2. Abundance for GOM/GBK Relative to Reference Points. Source: 2020 Benchmark Stock Assessment for American Lobster.

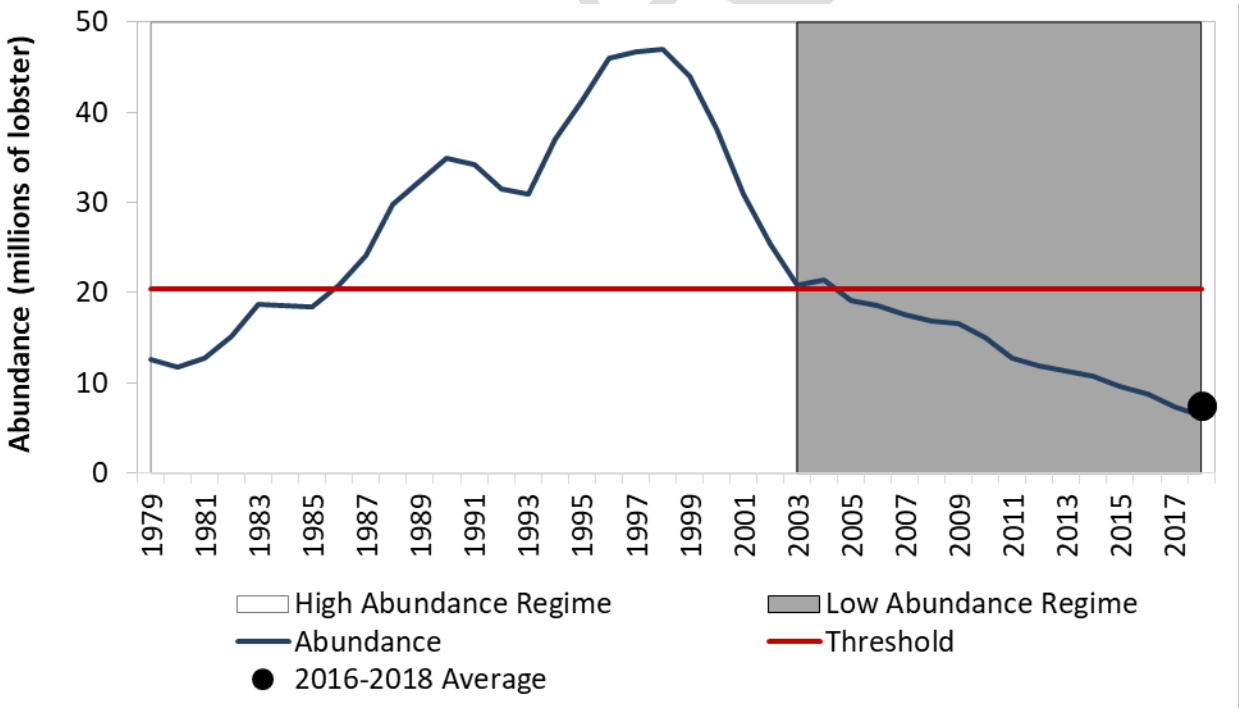

Figure 3. Abundance for SNE Relative to Reference Points. Source: 2020 Benchmark Stock Assessment for American Lobster.

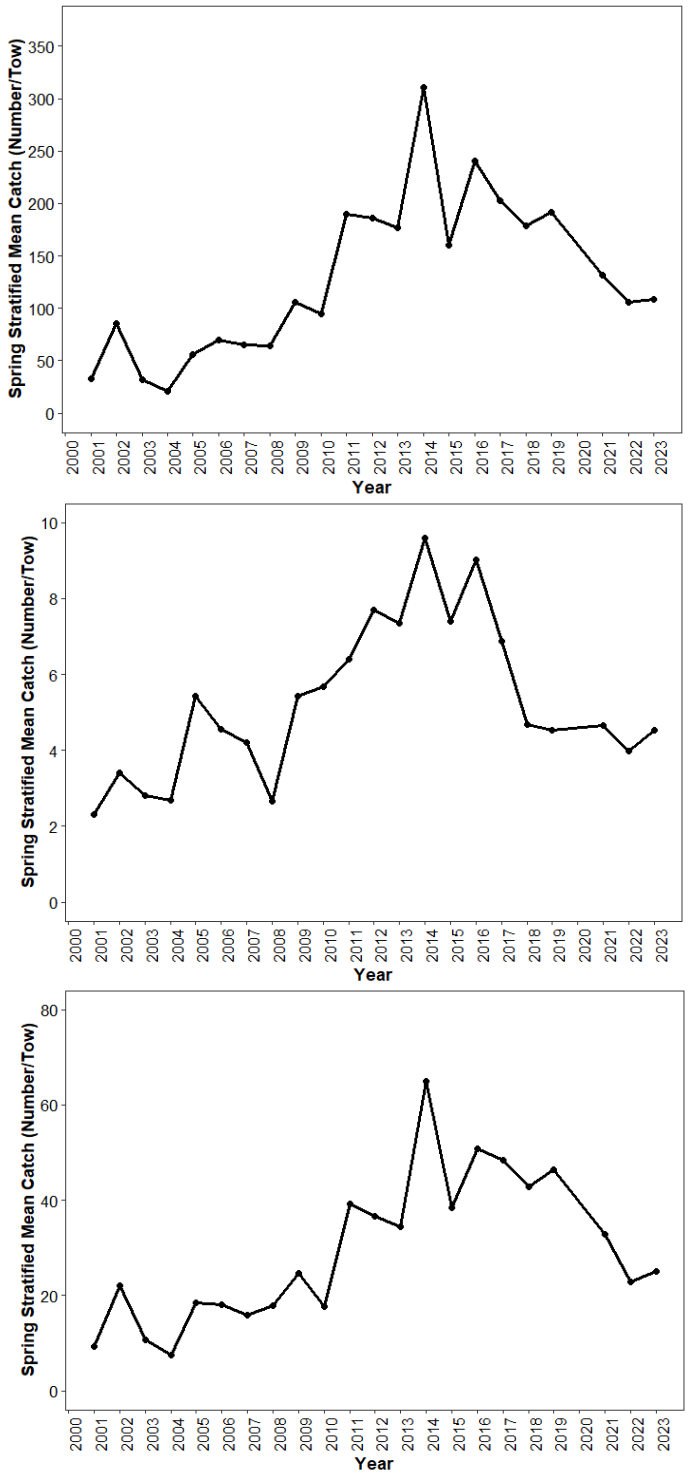

Figure 4. Stratified mean catch and recruit abundance for American lobster on the Spring ME/NH Inshore Trawl Survey (2000-2023). Top: Mean catch of sublegals (<83). Middle: Mean catch of legal sized lobsters (>82). Bottom: Recruit abundance (71-80 mm lobsters).

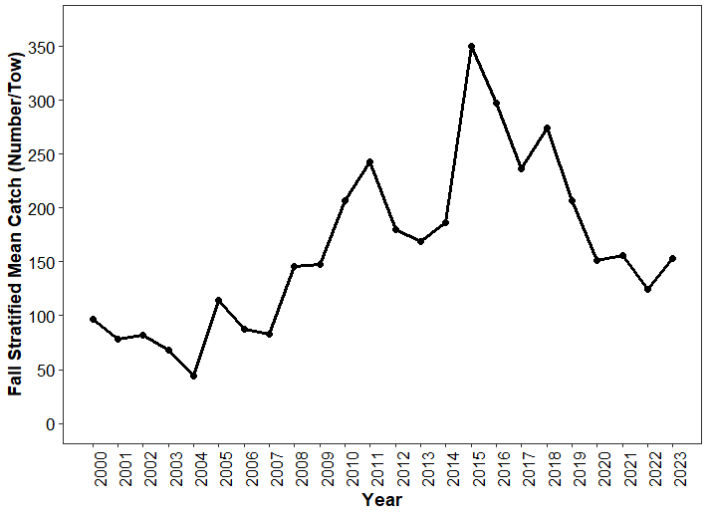

Figure 5. Stratified mean catch and recruit abundance for American lobster on the Fall ME/NH Inshore Trawl Survey (2000-2023). Top: Mean catch of sublegals (<83). Middle: Mean catch of legal sized lobsters (>82). Bottom: Recruit abundance (71-80 mm lobsters).

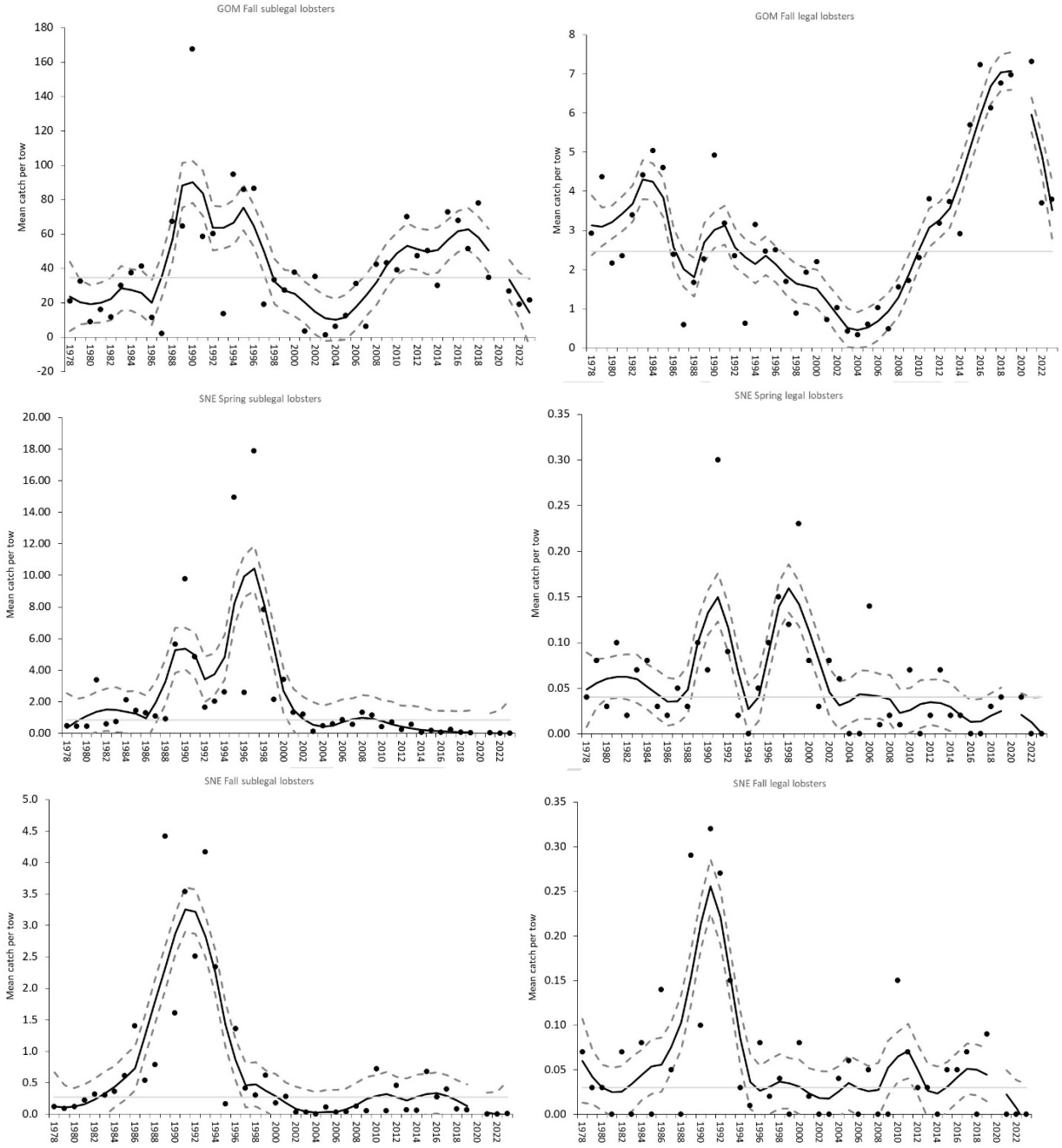

Figure 6. MADMF Fall Trawl Survey sublegal (left) and legal (right) indices from 1978-2023 sexes combined. Note there was no survey conducted in 2020 (spring or fall) due to the Covid-19 pandemic. The top two charts are from Gulf of Maine and the bottom four charts are from Southern New England. Black line represents a LOESS fit to the data (span = 0.25) and dashed grey lines are upper and lower standard errors of the model fit. The horizontal grey line is the time series median.

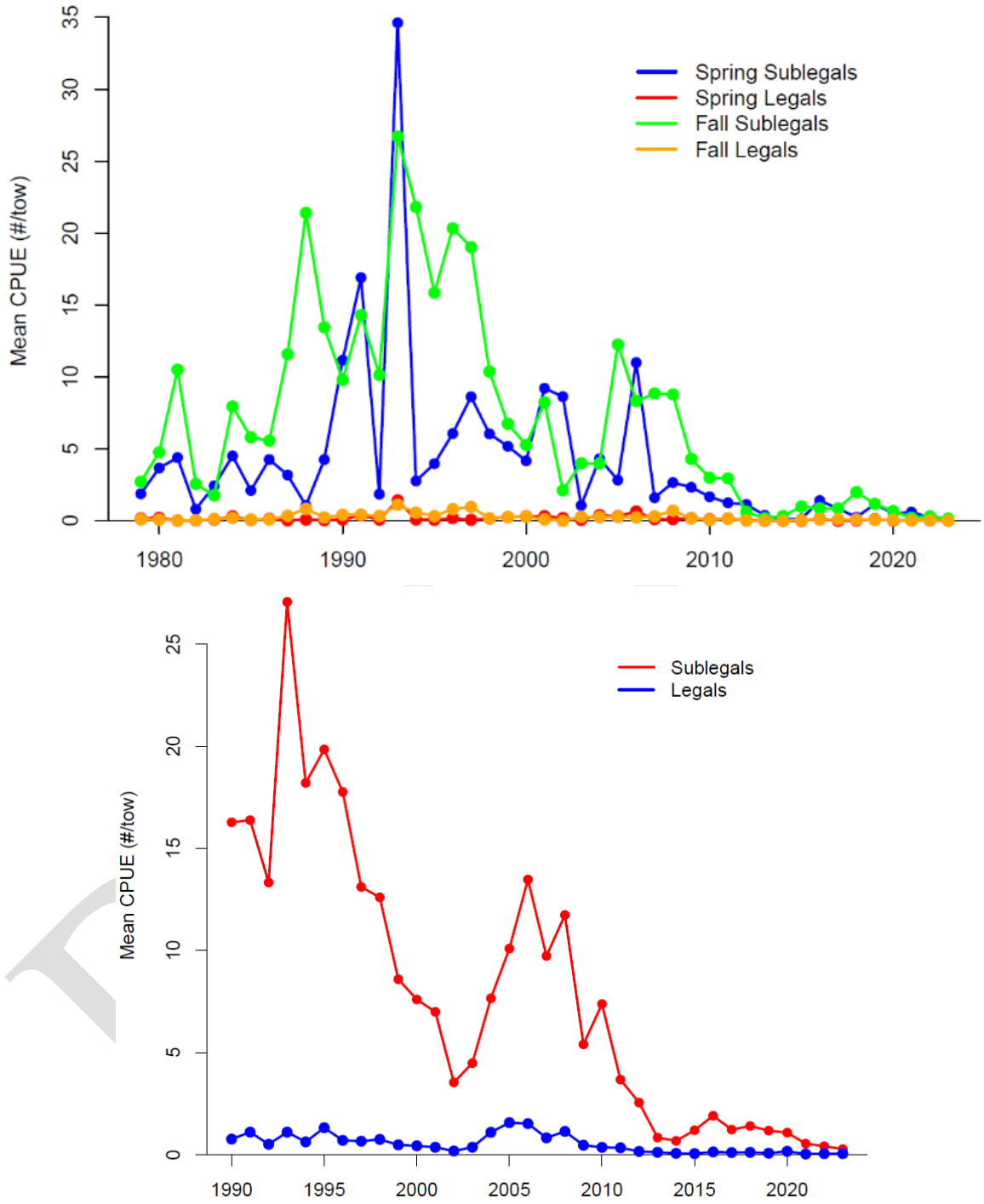

Figure 7. RIDFW Seasonal (spring and fall) Trawl lobster abundances (top) and Monthly Trawl lobster abundances (bottom). CPUE is expressed as the annual mean number per tow for sub-legal (<85.725mm CL) and legal sized (>=85.725mm CL) lobsters.

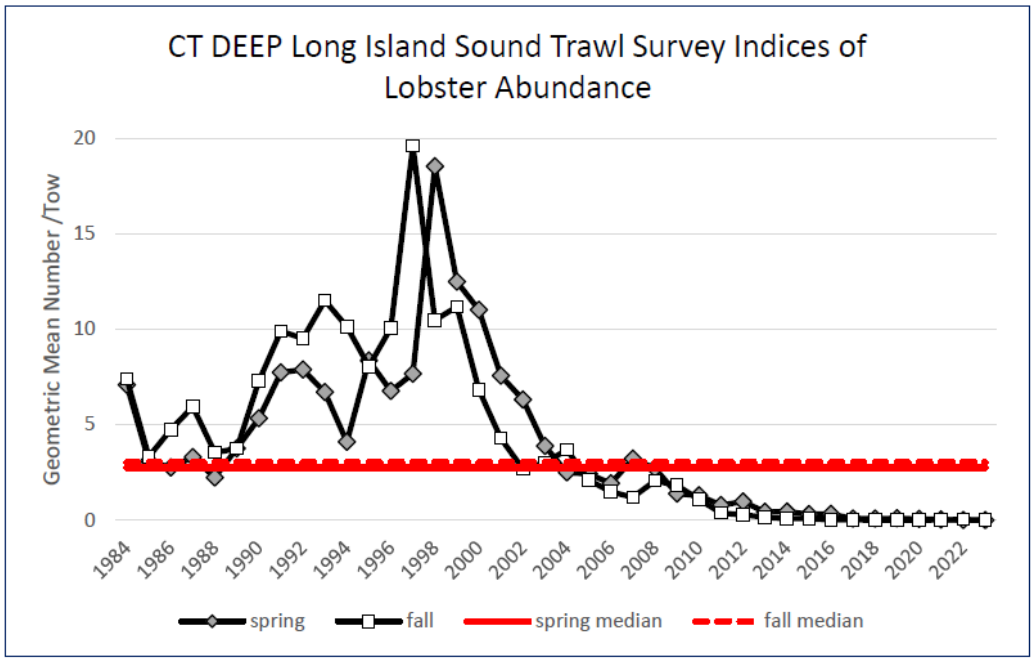

Figure 8. Results of the Long Island Sound Trawl Survey during spring (April-June) and fall (September-October) within NMFS statistical area 611.

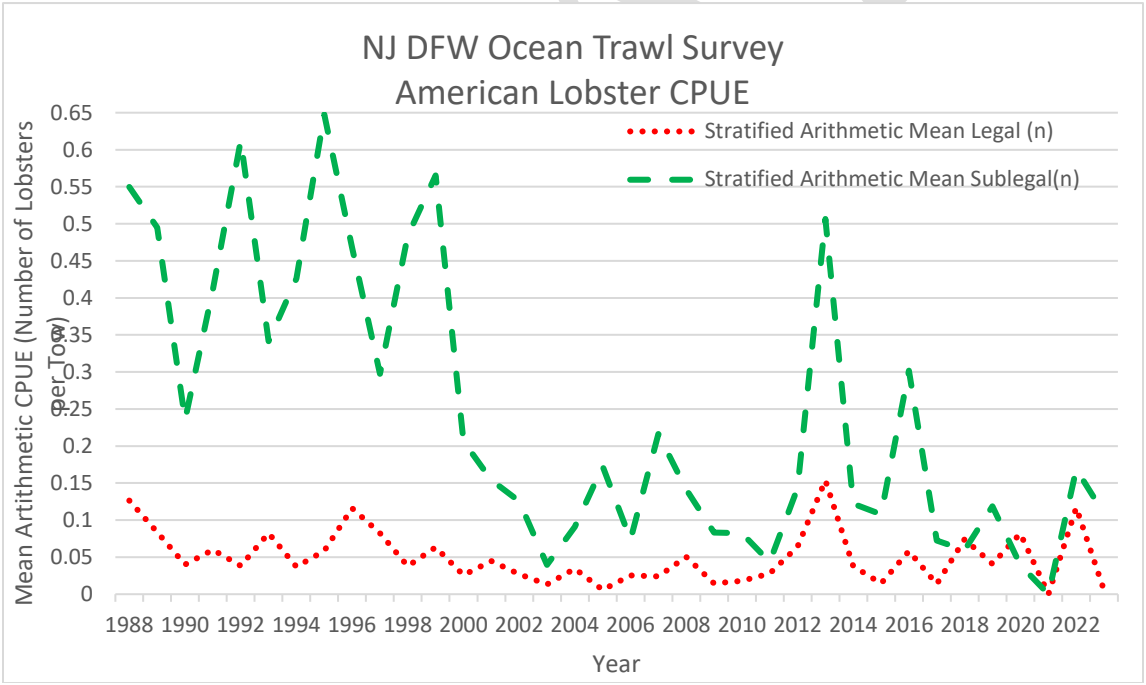

Figure 9. Stratified mean CPUE of all lobsters collected aboard the NJDFW Ocean Trawl Survey. *NOTE: No April 2019 Survey was conducted due to Research vessel mechanical issues. Due to the COVID-19 pandemic, Apr-Oct 2020 and 2021 CPUE and indices were not obtained.

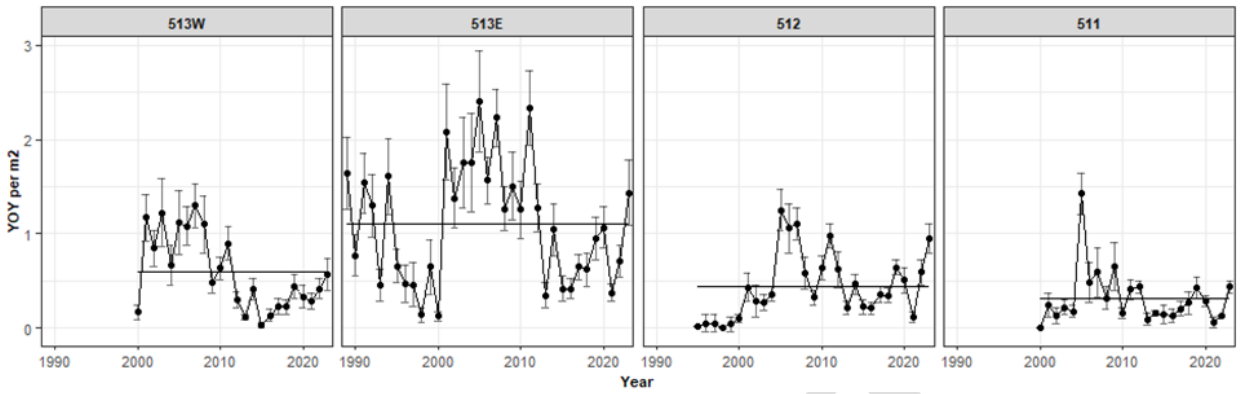

Figure 10. Maine Lobster Settlement Survey Index 1989-2023 for young of year for each statistical area with series average (solid horizonal line) for each region with standard error bars. The cut-off sizes for YOY vary by year.

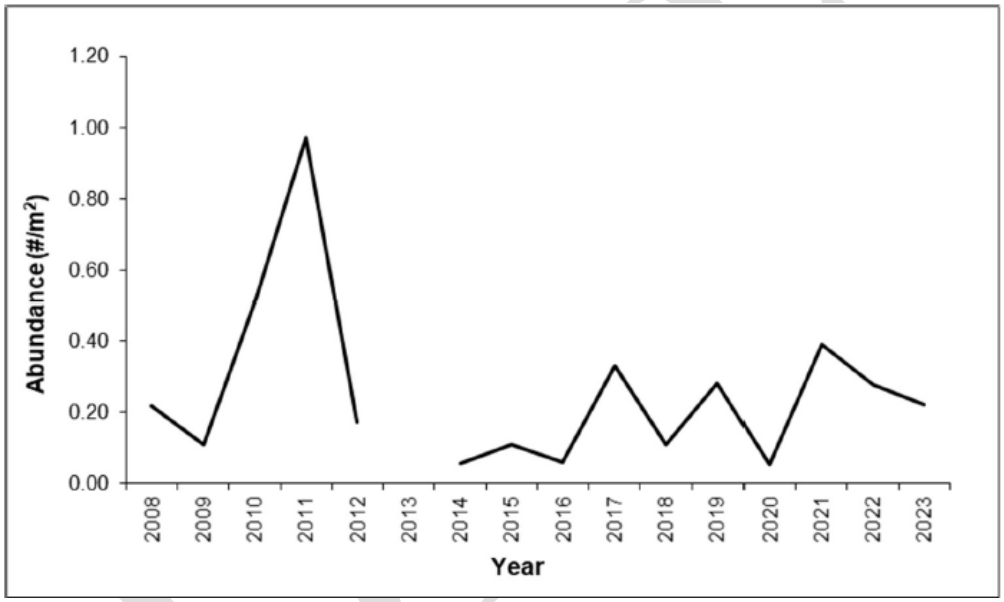

Figure 11. Catch per unit effort (#/m2) of young-of-year (YOY), one-year-olds (Y+), YOY and Y+ combined, and all lobsters during the American Lobster Settlement Index, by location, in New Hampshire, from 2008 through 2023.

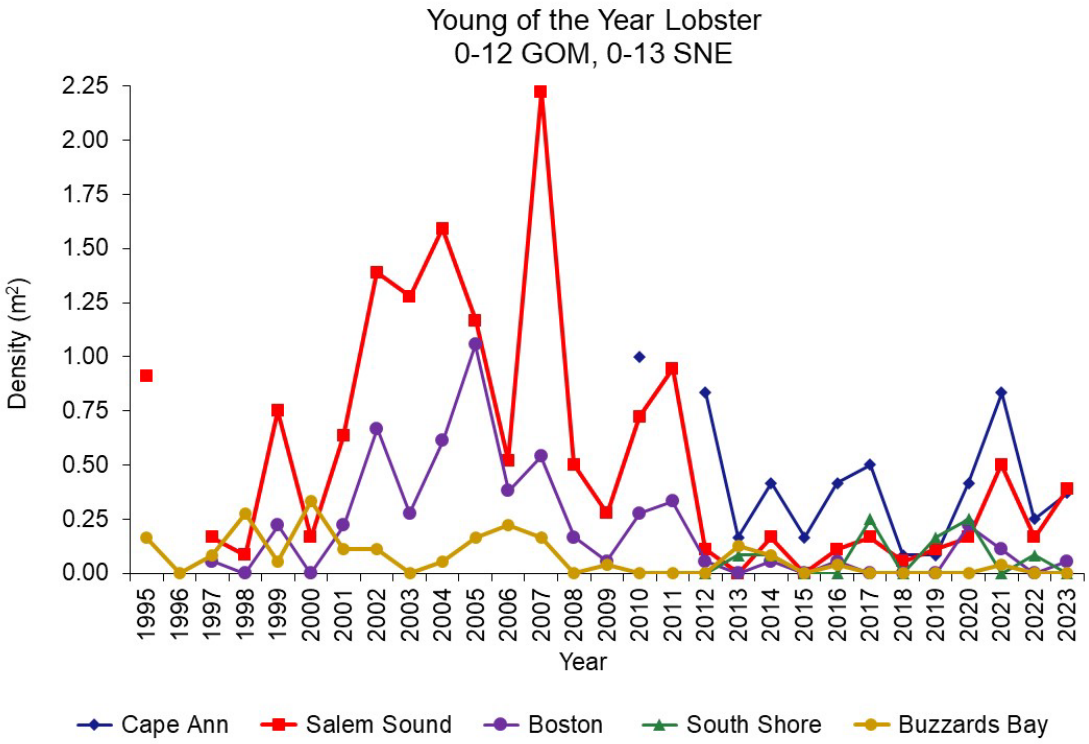

Figure 12. Young-of-year lobster density in four regions within the GOM stock unit – Cape Ann, Salem Sound, Boston, and South Shore, and one region in the SNE stock unit - Buzzards Bay. In GOM locations, lobsters ≤ 12 mm CL are considered YOY, while in SNE locations YOYs are ≤ 13 mm CL.

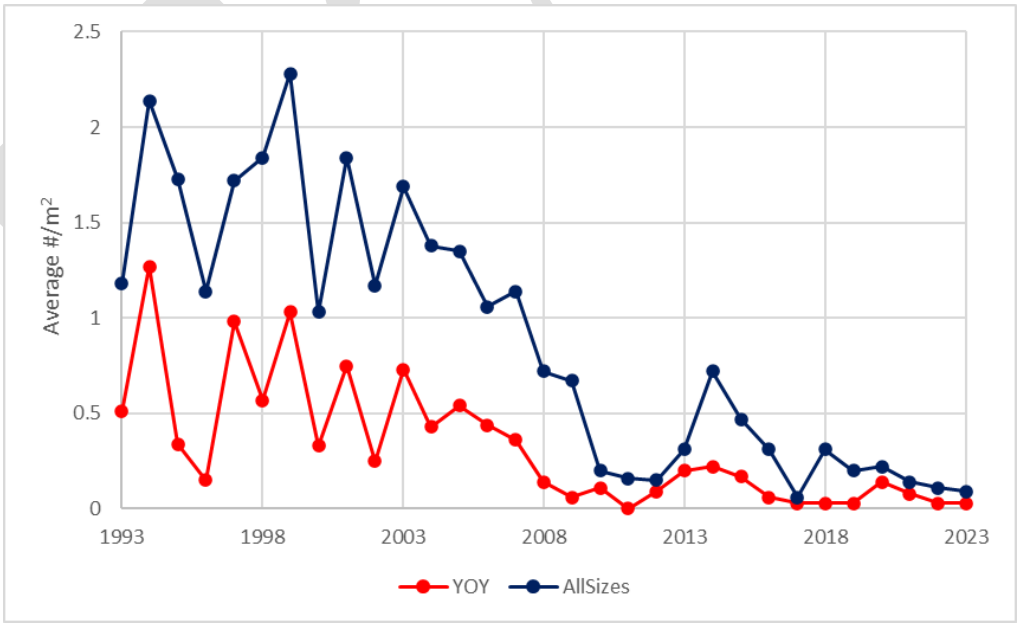

Figure 13. Average abundance of American lobster in Rhode Island suction sampling sites. Abundances are presented for YOY lobsters 13 mm or smaller (red line) and all sizes (blue line).

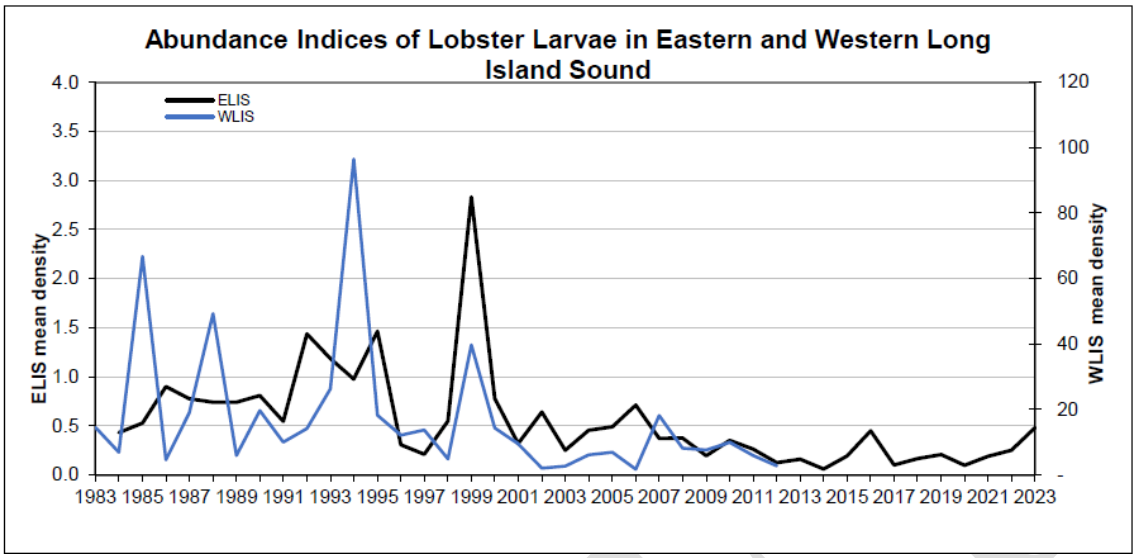

Figure 14. Abundance indices of lobster larvae from the Connecticut DEEP Larval Lobster Survey in western Long Island Sound and from the Millstone Power Station entrainment estimates in eastern Long Island Sound. The Connecticut DEEP survey was discontinued in 2013.

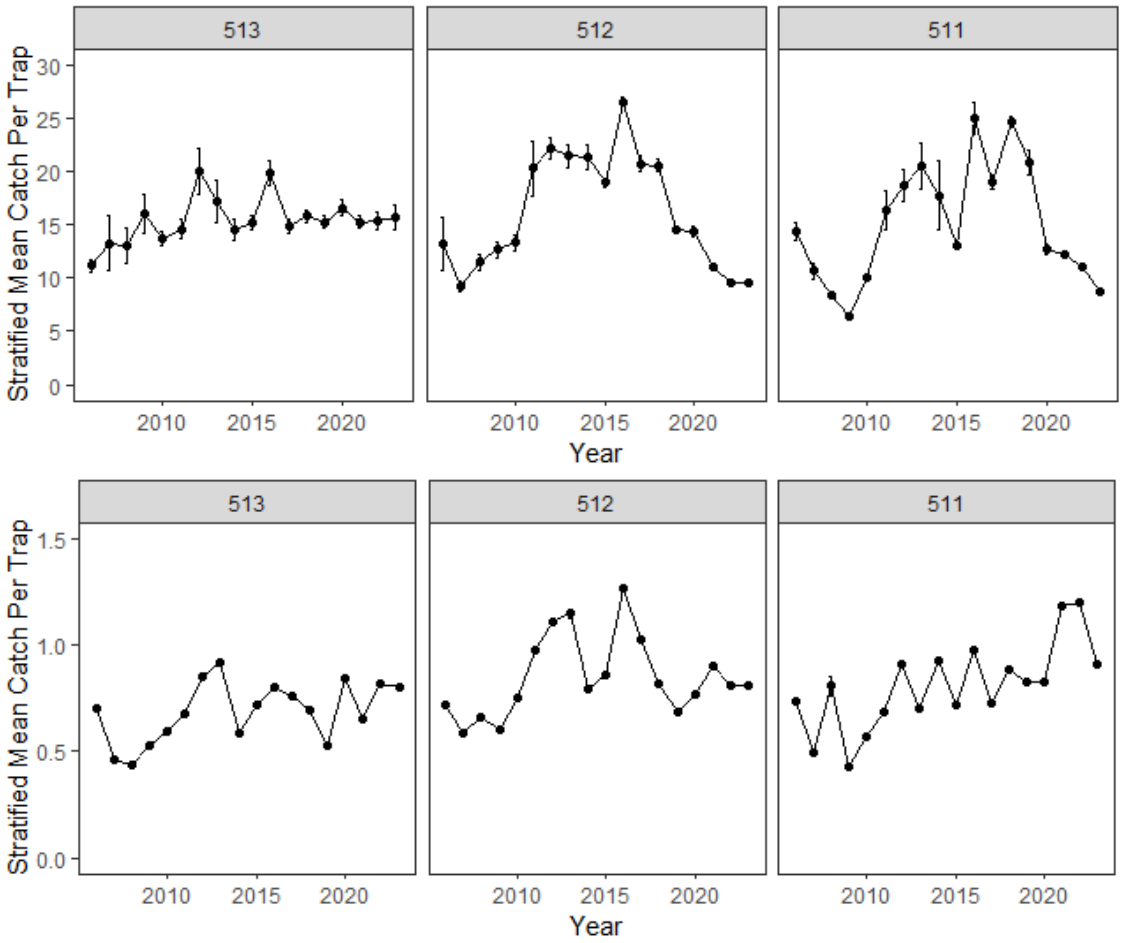

Figure 15. Stratified mean catch per trap for sublegal (top) and legal (bottom) sized lobsters from Maine's Ventless Trap Survey 2006-2023 by statistical area from ventless traps only. Standard error is shown.

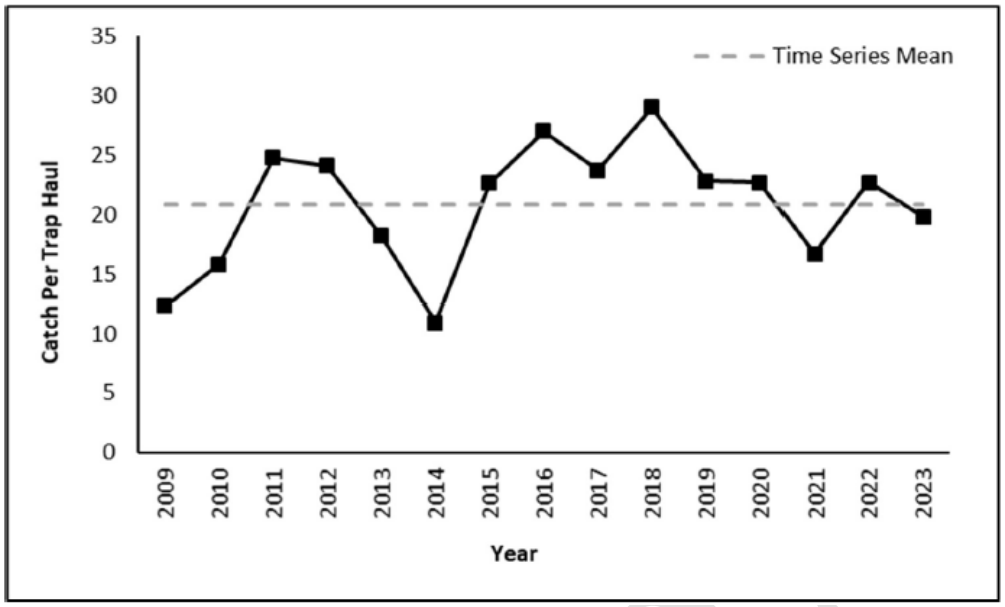

Figure 16. Stratified mean catch per trap haul (ventless traps only) for all lobsters captured during the coast-wide random stratified Ventless Trap Survey in New Hampshire state waters from 2009 through 2023.

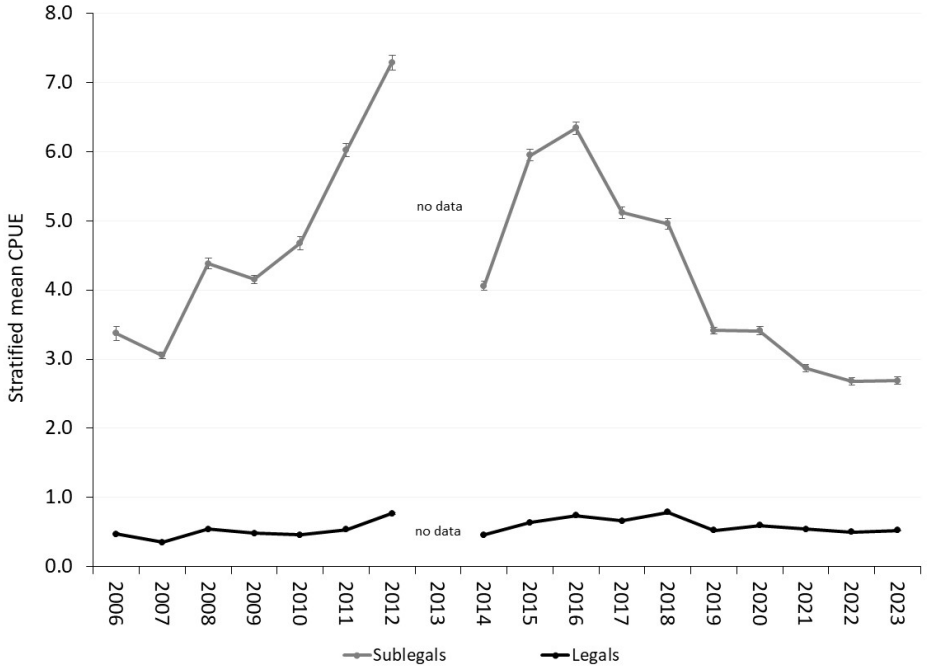

Figure 17. Stratified mean catch per trap haul (±S.E.) of sublegal (< 83 mm, grey line) and legal (≥ 83 mm, black line) lobsters in NMFS Area 514 from MADMF ventless trap survey from 2006-2023.

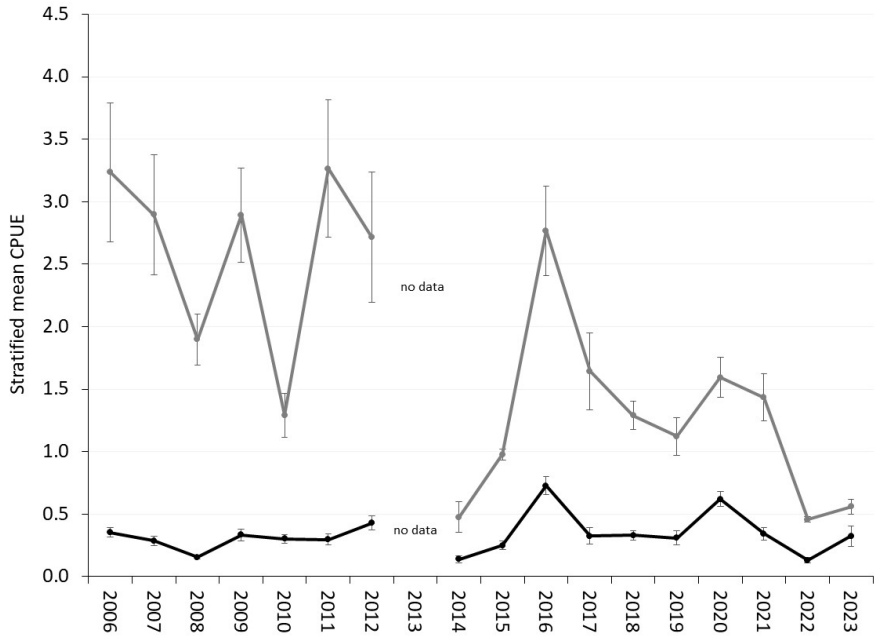

Figure 18. Stratified mean catch per trap haul (±S.E.) of sublegal (< 86 mm, grey line) and legal (≥ 86 mm, black line) lobsters in the reduced MA SNE survey area, Area 538.

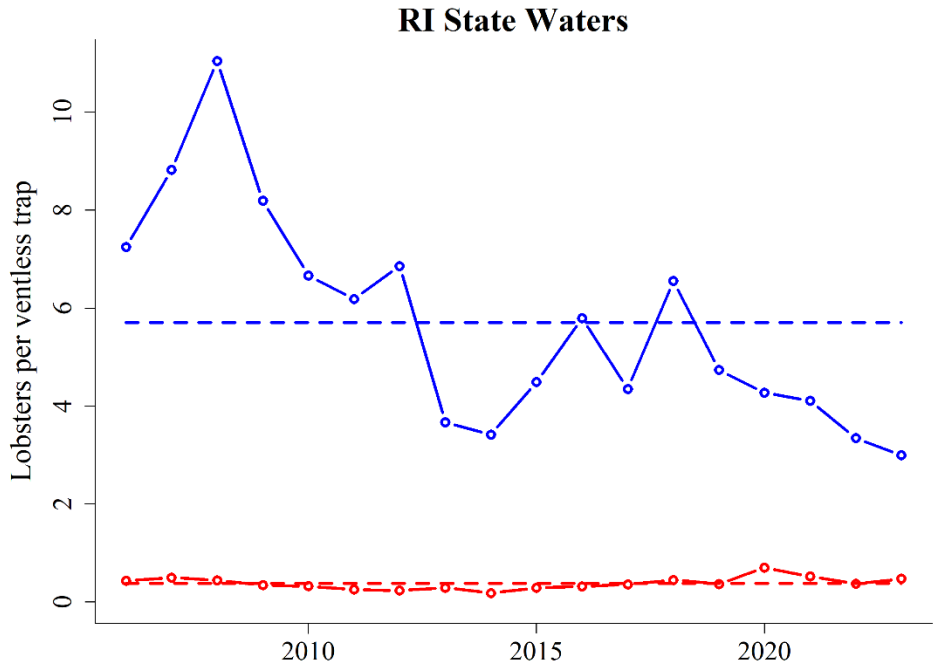

Figure 19. Depth-stratified mean catch of sublegal lobsters in the RIDEM DMF ventless trap survey, 2006-2023.

ATLANTIC STATES MARINE FISHERIES COMMISSION

REVIEW OF THE INTERSTATE FISHERY MANAGEMENT PLAN

For Jonah Crab
(*Cancer borealis*)

2023 FISHING YEAR

Prepared by the Plan Review Team

October 2024

Sustainable and Cooperative Management of Atlantic Coastal Fisheries

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REVIEW OF THE ATLANTIC STATES MARINE FISHERIES COMMISSION FISHERY MANAGEMENT PLAN FOR JONAH CRAB (*Cancer borealis*)

2023 FISHING YEAR

1.0 Status of the Fishery Management Plan

Year of ASMFC Plan's Adoption:	FMP (2015)
Framework Adjustments:	Addendum I (2016) Addendum II (2017) Addendum III (2018) Addendum IV (2022)
Management Unit:	Maine through North Carolina
States with a Declared Interest:	Maine through Virginia (Excluding Pennsylvania and DC)
Active Committees:	American Lobster Management Board, Technical Committee, Plan Review Team, Advisory Panel, Electronic Reporting Subcommittee, Electronic Tracking Subcommittee

2.0 Status of the Fishery

2.1 Commercial Fishery

Historically, Jonah crab was taken as bycatch in the lobster fishery; however, in the mid-2000s a directed fishery began to emerge, causing landings to rapidly increase. Throughout the 1990s, landings fluctuated between approximately 2 and 3 million pounds, and the overall value of the fishery was low. In the early 2000s landings began to increase, with over 7 million pounds landed in 2005. By 2014, landings had almost tripled to 17 million pounds and a value of nearly $13 million. This rapid increase in landings can be attributed to an increase in the price of other crab (such as Dungeness, *Metacarcinus magister*), creating a substitute market for Jonah crab, as well as a decrease in the abundance of lobster in Southern New England, causing fishermen to redirect effort on Jonah crab. It should be noted that there is some uncertainty in the landings data—especially prior to 2008—due to species misidentification issues as well as underreporting of landings before the implementation of reporting requirements. Despite the uncertainty, the overall trend in landings is likely accurate.

Today, Jonah crab and lobster are harvested in a mixed crustacean fishery in which fishermen can target lobster or crab at different times of the year based on slight gear modifications and small shifts in the areas in which the traps are fished. While the majority of Jonah crab landings is harvested as whole crabs, fishermen from several states, including New York, Maryland and Virginia, land claws. Jonah crab claws are relatively large and can be an inexpensive substitute for stone crab claws (*Menippe mercenaria*). As a result, they can provide an important source of income for fishermen. Along the Delmarva Peninsula, small boat fishermen have historically

harvested Jonah crab claws because they do not have seawater storage tanks on board to store whole crabs.

In 2023, landings along the Atlantic Coast totaled approximately 12.4 million pounds of Jonah crab, representing $14.1 million in ex-vessel value. Landings decreased 12% from 2022 landings of 14 million pounds, while ex-vessel value decreased 36% from the 2022 value ($22 mil). Anecdotal information from the industry suggests that Jonah crab landings and price are highly dependent on market conditions, which have affected recent fishery trends. Almost all coastwide landings came from trap gear. The states of Massachusetts (38%), Maine (25%), and Rhode Island (18%) were the largest contributors to landings. While landings from Southern New England still comprise the majority of the total, landings from the Gulf of Maine have been increasing in the last few years (Figure 1). Please note that Massachusetts data are based on dealer reports as harvester reports were not available for this report.

2.2 Recreational Fishery

The magnitude of the Jonah crab recreational fishery is unknown at this time; however, it is believed to be quite small in comparison to the size of the commercial fishery.

3.0 Status of the Stock

The 2023 Jonah Crab Benchmark Stock Assessment and Peer Review Report, released in October 2023, indicates the range-wide population of Jonah crab remains above historic lows of the 1980s and 1990s. However, evidence of declining catch per unit effort (CPUE) in the fishery presents concern and uncertainty for the status of the stock.

Based on life history and fishery characteristics, the assessment divided the population into four stocks: offshore Gulf of Maine (OGOM), inshore GOM (IGOM); offshore Southern New England (OSNE) and inshore SNE (ISNE). According to the stock indicators, IGOM, OGOM, and OSNE recruit, exploitable, and spawning abundance conditions from 2019-2021 were neutral or positive relative to historical periods. Indicators generally agree across these stocks that abundance has not been depleted compared to the historic low abundance observed in the 1980s and 1990s. There are no reliable abundance indicators for the ISNE stock so no determination about the condition of this stock's abundance could be made. Young-of-the-year (YOY) settlement indicators generally show neutral conditions and do not indicate that recruitment in the GOM stocks will decline to historical lows in the near future. Settlement conditions are unknown for SNE stocks.

According to the Peer Review Panel, "Despite the limited availability of current data, there is considerable urgency for the assessment due to a very steep, three-year, decline in landings. Commercial landings have declined 51% in three years, after an unprecedented 30-fold rise in landings. Although the recent decline is not well-detected in fishery-independent stock indicators, there is some evidence of declining CPUE in the fishery, creating concern and uncertainty for the status of the stock. Given the mixed signals, the status of the Jonah crab stock is highly uncertain. The Panel strongly recommended close monitoring of annual stock indicators in the next few years.

In response to the assessment findings and peer review panel recommendations, the American Lobster Management Board accepted the Benchmark Stock Assessment and Peer Review Report for management use. The Board also tasked the Technical Committee (TC) with recommending possible measures or actions to address the concerns about stock status and recent fishery trends. The TC did not recommend any management action, but recommended that indicator data for the OSNE stock, where the majority of the fishery occurs, be updated annually, while data for the other three stock areas should be updated every five years.

4.0 Status of Management Measures

Interstate Fishery Management Plan for Jonah Crab (2015)

Jonah crab is managed under the Interstate Fishery Management Plan (FMP) which was approved by the American Lobster Management Board in August 2015. The goal of the FMP is to promote conservation, reduce the possibility of recruitment failure, and allow for the full utilization of the resource by the industry. The FMP lays out specific management measures in the commercial fishery. These include a 4.75" minimum size and a prohibition on the retention of egg-bearing females. To prevent the fishery from being open access, the FMP states that participation in the directed trap fishery is limited to lobster permit holders or those who can prove a history of crab-only pot fishing. All others must obtain an incidental permit. In the recreational fishery, the FMP sets a possession limit of 50 whole crabs per person per day and prohibits the retention of egg-bearing females. Due to the lack of data on the Jonah crab fishery, the FMP implements a fishery-dependent data collection program. The FMP also requires harvester and dealer reporting along with port and/or sea sampling.

Addendum I (2016)

Addendum I establishes a bycatch limit of 1,000 crabs per trip for non-trap gear (e.g., otter trawls, gillnets) and non-lobster trap gear (e.g., fish, crab, and whelk pots). In doing so, the Addendum caps incidental landings of Jonah crab across all non-directed gear types with a uniform bycatch allowance. While the gear types in Addendum I make minimal contributions to total landings in the fishery, the 1,000 crab limit provides a cap to potential increases in effort and trap proliferation.

Addendum II (2017)

Addendum II establishes a coastwide standard for claw harvest. Specifically, it permits Jonah crab fishermen to detach and harvest claws at sea, with a required minimum claw length (measured along the forearm of the claw) of 2.75" if the volume of claws landed is greater than five gallons. Claw landings less than five gallons do not have to meet the minimum claw length standard. The Addendum also establishes a definition of bycatch in the Jonah crab fishery, whereby the total pounds of Jonah crab caught as bycatch must weigh less than the total amount of the targeted species at all times during a fishing trip. The intent of this definition is to address concerns regarding the expansion of a small-scale fishery under the bycatch limit.

Addendum III (2018)

Addendum III improves the collection of harvester and biological data in the Jonah crab fishery.

Specifically, the Addendum improves the spatial resolution of harvester data collection by requiring fishermen to report via 10-minute squares. It also expands the required harvester reporting data elements to collect greater information on gear configurations and effort. In addition, the Addendum established a deadline that within five years, states are required to implement 100% harvester reporting, with the prioritization of electronic harvester reporting development during that time. Finally, the Addendum improves the biological sampling requirements by establishing a baseline of ten sampling trips/year, and encourages states with more than 10% of coastwide landings to conduct additional sampling trips.

Addendum IV (2022)

Addendum IV expands on reporting improvements by establishing electronic tracking requirements for federally-permitted vessels in the American lobster and Jonah crab fisheries. Specifically, electronic tracking devices will be required for vessels with commercial trap gear area permits for Lobster Conservation Management Areas (LCMAs) 1, 2, 3, 4, 5, and Outer Cape Cod to collect high resolution spatial and temporal effort data.

5.0 Fishery Monitoring

The provisions of Addendum III went into effect January 1, 2019. Specifically, Addendum III requires reporting of additional data elements, the implementation of 100% harvester reporting within five years, and the completion of a minimum of ten sea and/or port sampling trips per year for biological sampling of the lobster/Jonah crab fishery. The Addendum III requirement for commercial harvesters to report their fishing location by 10 minute longitudinal/latitudinal square was implemented in 2021. Types of information collected vary by state, but can include shell width, sex, discards, egg bearing status, cull status, shell hardness, shell disease, and whether landings are whole crabs or parts. *De minimis* states are not required to conduct fishery-independent sampling or port/sea sampling. Data on the states' port and sea sampling in 2023 is summarized in Table 2.

6.0 Status of Fishery-Independent Surveys

The FMP for Jonah crab encourages states to expand current lobster surveys (i.e. trawl surveys, ventless trap surveys, settlement surveys) to collection biological information on Jonah crab. The following outlines the fishery-independent surveys conducted by each state.

Maine

A. Settlement Survey

The Maine settlement survey was primarily designed to quantify lobster young-of-year (YOY), but has also collected Jonah crab data from the sites throughout the survey. Jonah crab information collected includes carapace width, sex (when large enough), ovigerous condition, claw status, shell hardness, and location. The density of YOY Jonah crab increased over the past two decades with high values in 2012 and 2016, then declined slightly in recent years (Figure 2). In 2023, density of YOY Jonah crab decreased from 2022 in Statistical Areas 513 and 512, and increased in 511, but all areas remain at lower levels.

B. Ventless Trap Survey

Maine began its Juvenile Lobster Ventless Trap Survey in 2006. Since the beginning of the survey, Jonah crab counts were recorded by the contracted fishermen, but the confidence in early years of this data is low because of the confusion between the two *Cancer* crabs (Jonah crab vs. rock crab) and similar common names. In 2016, the survey began collecting biological data for Jonah crab including carapace width, sex, ovigerous condition, claw status, shell hardness, and location. Since 2016, the survey has sampled 276 sites coast wide using a stratified random design using depth and Statistical Area. In 2023, Jonah crab catch in the survey decreased in Statistical Areas 513 and 511 and increased in area 512, compared to 2022. Concentrations of Jonah crab were highest in Statistical Area 512 and lowest in 513 (Figure 3).

C. State Trawl Survey

The ME/NH Inshore Trawl Survey began in 2000 and is conducted biannually (spring and fall) through a random stratified sampling scheme. Jonah crab data has been collected since 2003. The 2023 spring survey ran from May to June and completed 97 out of 120 scheduled tows. A total of 227 Jonah crab were caught and sampled, with 117 females, 105 males, and 5 unsexed caught and measured. The 2023 fall survey ran from September through October and completed 78 out of 120 scheduled tows; A total of 139 Jonah crab were caught and sampled, with 61 females, 74 males, and 4 non-sexed Jonah crab measured and sampled. Abundance indices for Jonah crab have increased the past two years after declining from a peak in 2016 (Figure 4 and Figure 5).

New Hampshire

A. Settlement Survey

Since 2009, species information has been collected on Jonah crab in the New Hampshire Fish and Game portion of the American Lobster Settlement Index. The time series of CPUE (#/m^2) of Jonah crab for all NH sites combined, from 2009 through 2023 shows a general upward trend with a time series high in 2022 (Figure 6).

B. Ventless Trap Survey

Since 2009, New Hampshire Fish and Game has been conducting the coastwide Random Stratified Ventless Trap Survey in state waters (Statistical Area 513). A total of six sites were surveyed twice a month from June through September in 2023. Beginning in 2016, all Jonah crabs were evaluated for sex, carapace width (mm), cull condition, and molt stage. A total of 8 Jonah crab over 8 trips were measured during the 2023 sampling season.

Massachusetts

A. Settlement Survey

The Juvenile Lobster Suction Survey has consistently identified *Cancer* crabs to genus level since 1995, and Jonah crab have been consistently identified to species in the survey since 2011. The mean number of Jonah crab observed in the MA DMF Settlement Survey in the GOM region has been higher from 2016 through 2023 than it was from 2011 to 2015 (Figure 7).

B. Ventless Trap Survey

The Massachusetts Division of Marine Fisheries (MA DMF) Ventless Trap Survey is conducted in MA territorial waters of NMFS statistical areas 514 and 538. Stratified mean catch per trawl haul (CPUE) for the survey is standardized to a six-pot trawl with three vented and three ventless traps. The index produced from the MA DMF Ventless Trap Survey from area 514 has been increasing since 2012 and reached a time series high in 2023 (Figure 8). Jonah crab are infrequently captured in the area 538 portion of the survey, likely because water temperatures in this region frequently exceed the Jonah crab thermal preference.

C. Trawl Survey

While Jonah crab are common in the deeper, cooler, Federal waters portion of SNE, they are rare in Massachusetts state waters south of Cape Cod, and therefore are infrequently captured by the MA DMF Trawl Survey in this area. Since generally increasing in abundance since the mid-1990's, the last couple of years of the spring and fall surveys in the GOM have generally been near or below time series medians (Figure 9).

Rhode Island

A. Settlement Survey

The RI DEM lobster YOY Settlement Survey (Suction Sampling) intercepts Jonah crabs. Jonah crab catches in this survey are generally low. In 2023, the Jonah Crab Index was zero crabs per m^2, compared with the time series (1990-2023) mean of 0.17 crabs per m^2.

B. Ventless Trap Survey

Since its inception in 2006, the RI Ventless Trap Survey (VTS) has recorded counts of Jonah crab per pot. Carapace width, sex, ovigerous condition, and location data have been collected for all Jonah crabs encountered in the survey since 2015; prior to this, only counts of Jonah crab were recorded. In 2023, the stratified abundance index of Jonah crabs was 2.39 crabs per ventless trap, higher than the time series mean of 1.45 crabs per ventless trap (Figure 10).

B. Trawl Survey

RI DEM has conducted spring and fall trawl surveys since 1979, and a monthly trawl survey since 1990. However, the survey did not begin counting Jonah crab specifically until 2015. Jonah crabs are rarely encountered in this survey, and abundance indices are variable yet low, averaging 0.04 crabs per tow over the time series.

Connecticut

A. Trawl Survey

Jonah crab abundance is monitored through the Long Island Sound Trawl Survey (LISTS) during the spring (April, May, June) and fall (September and October) cruises, all within NMFS statistical area 611. The survey documents the number of individuals caught and total weight per haul by survey site in Long Island Sound. The LISTS caught one Jonah crab in the fall 2007 survey and two in the fall 2008 survey. Both observations occurred in October at the same trawl site in eastern Long Island Sound. No trawl survey sampling was conducted in 2020 due to

restrictions on field sampling caused by the global COVID-19 pandemic. No Jonah crabs were observed in the spring or fall surveys in 2021-2023.

New York

A. Trawl Survey

New York initiated a stratified random trawl survey in the near shore ocean waters off the south shore of Long Island in 2018 from the Rockaways to Montauk Point and the New York waters of Block Island Sound. Three sampling cruises were conducted in 2023 during the spring (May, June), and fall (October, November). Twenty-eight stations were sampled during the cruise in May, and twenty-nine stations were sampled during the June cruise. During the fall, twenty-five stations were sampled in October and four stations were sampled in November. A total of thirty-four Jonah crabs were caught. A total of six females were measured ranging from 20mm to 69mm with an average of 46mm. Twenty-seven males were measured ranging from 21mm to 136mm, with an average carapace of 49mm. One unknown Jonah crab was caught that measured 99mm.

New Jersey

A. Trawl Survey

A fishery-independent Ocean Trawl Survey is conducted from Sandy Hook, NJ to Cape May, NJ each year. The survey stratifies sampling in three depth gradients, inshore (18'-30'), mid-shore (30'-60'), and offshore (60'-90'). The mean CPUE, which is calculated as the sum of the mean weight of Jonah crab collected in each sampling area weighted by the stratum area, has remained low throughout the time series, but increased slightly in 2019. A cruise was not conducted in April 2019. Due to the COVID-19 pandemic, 2020 and 2021 CPUE and indices were not obtained. The 2022 and 2023 observations were higher than the previous three decades. (Figure 11).

7.0 Recent and On-Going Research Projects

A. Declawing Study

NH F&G, Wells National Estuarine Research Reserve, and the University of New Hampshire have been conducting a variety of collaborative research on Jonah crabs since 2014. Two of those studies were published in 2021. Goldstein and Carloni (2021) assessed the implications of live claw removal, and Dorrance et al. (2021) conducted follow-up research on that study to better understand the sublethal effects of declawing. These manuscripts provide estimates of mortality for declawed animals, and information on the effects of claw removal on feeding, movement and mating.

In addition to the above-mentioned publications, an acoustic telemetry study was conducted in 2018 and 2019 by same collaborators to assess the movement patterns of both controls and declawed animals. These data are currently the basis for Maureen Madray's thesis (Furey lab-UNH) and will be finalized in the coming months.

B. Growth and Fishery Dependent Data

In 2019, two collaborative studies between the University of Rhode Island and Rhode Island DEM were published. The first of these was a growth study, which described molt increments for adult females and males and molting seasonality and molt probabilities for adult males in Rhode Island Sound. The second was an interview study in which fifteen in-person interviews were conducted with Jonah crab fishermen to collect their knowledge concerning Jonah crab biology and fishery characteristics. The interviews provided insight into aspects of the species biology and life history that have not been characterized in the literature (e.g., seasonal distribution patterns); identified topics requiring further study (e.g., stock structure and spawning seasonality); and highlighted predominant concerns related to fishery management (e.g., inshore-offshore fleet dynamics).

New Hampshire Fish and Game, Wells National Estuarine Research Reserve and the University of New Hampshire conducted research on growth rates of crabs held at ambient and controlled temperatures for sizes ranging from 5 mm (YOY) to 100 mm. These data are currently being analyzed, and will be available for population assessment purposes.

C. CFRF Research Fleet

The Commercial Fisheries Research Foundation (CFRF) has expanded its lobster commercial research fleet to sample Jonah crab. Biological data collected include carapace width, sex, shell hardness, egg status, and disposition. To date 135,964 Jonah crabs have been sampled through the program[1].

8.0 State Compliance

All states have implemented the provisions of the Jonah Crab FMP and associated addenda. The implementation deadline for the Jonah Crab FMP was June 1, 2016; the implementation deadline for Addendum I was January 1, 2017; the implementation deadline for Addendum II was January 1, 2018; and the implementation deadline for Addendum III was January 1, 2019 (with the exception of the 10-minute square reporting requirement). Reporting at the 10-minute square level was implemented in 2021.

9.0 De Minimis Requests

The states of Delaware, Maryland, and Virginia, have requested *de minimis* status. According to the Jonah crab FMP, states may qualify for *de minimis* status if, for the preceding three years for which data are available, their average commercial landings (by weight) constitute less than 1% of the average coastwide commercial catch. Delaware, Maryland, and Virginia meet the *de minimis* requirement.

10.0 Research Recommendations

Research recommendations made by the Stock Assessment Subcommittee and Peer Review Panel in the 2023 Jonah crab benchmark stock assessment are summarized below.

[1] https://www.cfrfoundation.org/jonah-crab-lobster-research-fleet

High Priority

- Surveys to track abundance in SNE during all life stages (e.g., settlement, recruitment, abundance) for future stock assessments and potential management advice.
- Research to provide a more comprehensive understanding of recruitment dynamics, including tracking of spatiotemporal settlement dynamics and the source of recruitment to offshore SNE, to inform development of Jonah crab settlement surveys.
- Appropriate survey methodologies need to be researched to track abundance of Jonah crab. Behavioral interactions with survey gear need to be better understood. Video surveys are recommended to examine these interactions. Video surveys could also be used for snapshot estimates of total stock size (i.e., swept-area biomass) that could be used to gain a better understanding on exploitation levels.
- Female migration pathways/seasonality and distribution needs to be researched to help understand movement and inform connectivity. Ventless trap surveys (state-run and windfarm impact) offer a potential data set to explore interannual variability in distribution.
- Information on larval duration in the field, mortality, and dispersal are needed to better understand possible connectivity. Spawning female distribution information would supplement efforts to model these processes. Evaluate larval data sets for species identification and to explore abundance, seasonality, and interannual variability.
- Inter-molt duration of adult crabs is currently unknown and growth increment data for mature crabs is limited. There are no growth data from offshore SNE where the bulk of the fishery occurs and differences in growth between regions are unknown.
- Research growth mechanisms for both sexes (e.g., potential for terminal molt, lack of growth associated with molting, high natural mortality for adults) to explain lack of exploitation signal (i.e., lack of size structure change) in available data sets.
- Increase and improve consistency of fisheries-dependent monitoring and biosampling. Sampling intensity by statistical area should be based on landings.
- Continue to improve accuracy of commercial reporting to improve quantification of effort in the directed and mixed-crustacean fisheries. Evaluate new spatial to better understand spatial dynamics of the fishery.
- Study the effect of temperature on Jonah crab behavior/activity.
- Studies should be done to identify and understand drivers of ecosystem/environmental drivers of Jonah crab population dynamics.
- Determine how to interpret fisheries-dependent data considering interactions between fishery response to abundance, economic drivers, and lobster fishery dynamics.

Moderate Priority

- Explore historical data sets from the scallop dredge survey and video surveys like HabCam to understand habitat use/suitability, abundance, distribution, and to inform potential covariates for catchability effects.
- Analyze food habits data, with an emphasis on offshore areas, to better understand predation of Jonah crab and as a potential measure of abundance and distribution.

- Evaluate evidence for a defined stock-recruit relationship or lack thereof. If lack of evidence, identify recruitment drivers and mechanisms of population abundance change.

Low Priority

- Information should be collected to help delineate stock boundaries and understand possible connectivity, with an emphasis on the GOM/SNE boundary.
- Reproductive studies pertaining to male-female spawning size ratios, the possibility of successful spawning by physiologically mature but morphometrically immature male crabs, and potential for sperm limitations should be conducted.
- If improved abundance data with higher encounter rates becomes available, cohort tracking analyses should be conducted across and within surveys to better understand if surveys are tracking true abundance signals and provide information on growth, mortality, and other demographic factors.
- The development of aging methods or determination of the mechanism responsible for the suspected annuli formation found in the gastric mill should be explored.

11.0 Plan Review Team Recommendations

The following are recommendations and comments from the Plan Review Team:

- The PRT recommends the Board approve the *de minimis* requests of DE, MD, and VA.
- The PRT notes that MA has been unable to meet the August 1 deadline for compliance reports for the last several years.
- Rhode Island, Connecticut, and New Jersey were not able to complete the sea and/or port sampling required by the FMP. Rhode Island completed four out of ten required trips, and Connecticut and New Jersey did not complete any sampling. These states have noted concerns with staff availability, funding, and lack of agreement by fishermen, which have contributed to the inability to complete the required sampling trips.
- The 2023 Benchmark Stock Assessment recommended that fisheries-dependent monitoring and biosampling be increased and improved, with sampling intensity by statistical area based on landings. The PRT recommends the TC provide recommendations on adequate sampling numbers by statistical area.

12.0 Tables

Table 1. Landings (in pounds) of Jonah crab by the states of Maine through Virginia. 2010-2022 landings were provided by ACCSP based on state data submissions. 2023 landings were submitted by the states as a part of the compliance reports and should be considered preliminary. *C= confidential data*

	ME	NH	MA	RI	CT	NY	NJ	DE	MD	VA	Total
2010	1,154,564	C	5,689,431	3,899,239	C	995,059	84,645		23,909	C	11,846,847
2011	1,152,651	C	5,381,140	3,221,119	C	69,440	71,632		104,838	C	10,000,820
2012	586,449	C	7,540,545	3,865,978	2,349	468,364	86,736		C	C	12,550,421
2013	391,690	340,751	10,117,595	4,665,489	51,462	407,755	16,425		C	C	15,991,166
2014	361,500	404,703	11,904,649	4,568,400	49,998	95,855	48,008		154,764	C	17,587,878
2015	312,063	C	9,128,876	4,298,894	C	215,140	88,283	C	88,467	C	14,131,722
2016	625,240	150,971	10,661,416	4,232,785	C	177,425	279,249	C	64,552	C	16,201,295
2017	1,169,474	114,155	11,698,447	4,111,281	C	176,424	447,048	C	75,991	C	17,792,819
2018	1,061,799	22,434	13,250,803	4,665,701	C	231,705	880,192	C	60,932	C	20,173,884
2019	763,807	70,818	9,698,145	4,222,305	C	125,391	1,061,194	C	47,829	C	15,989,489
2020	696,309	31,658	8,605,007	3,331,552	C	105,841	975,522	C	35,606	C	13,781,495
2021	1,427,245	123,729	6,539,131	2,157,071	C	72,066	976,248	C	34,327	C	11,329,815
2022	2,090,924	295,529	7,803,736	2,504,895	C	41,816	493,179	C	C	C	13,230,080
2023	3,060,784	357,829	**5,336,973*	2,483,156	C	259,876	863,583	C	C	C	7,025,228

**The Massachusetts landings estimate is based on dealer reports because harvester reports were not available at the time of this report.*

Table 2. Fishery-dependent sampling (port/sea) by state in 2023. Delaware, Maryland, and Virginia are not required to complete fishery-dependent monitoring.

	Sea Sampling Trips	# of Samples	Port Sampling Trips	# of Samples
ME	19	3,489	0	0
NH	14	128	4	399
MA	0	0	10	6,689
RI	0	0	4	863
CT	0	0	0	0
NY	0	0	16	755
NJ	0	0	0	0
DE	None	None	None	None
MD				
VA				
Total	**33**	**3,617**	**34**	**8,706**

13.0 Figures

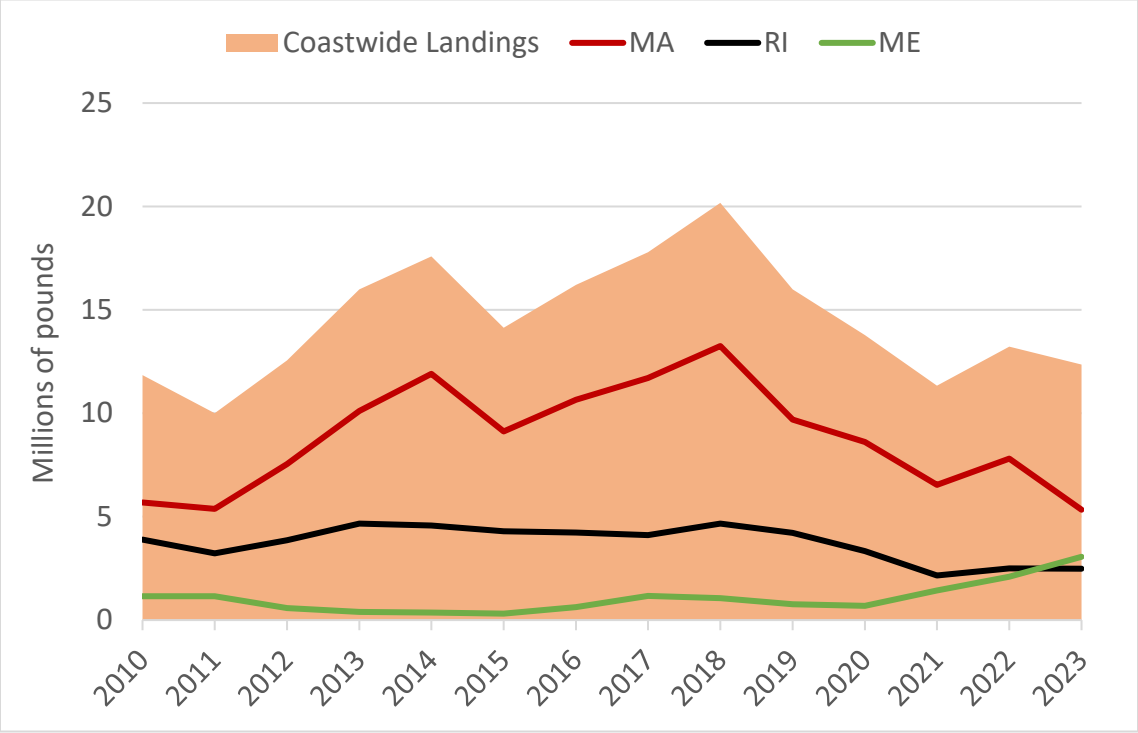

Figure 1. Coastwide commercial Jonah crab landings, 2010-2023. Data from 2010-2022 are from the ACCSP Data Warehouse, and 2023 landings are based on state compliance reports.

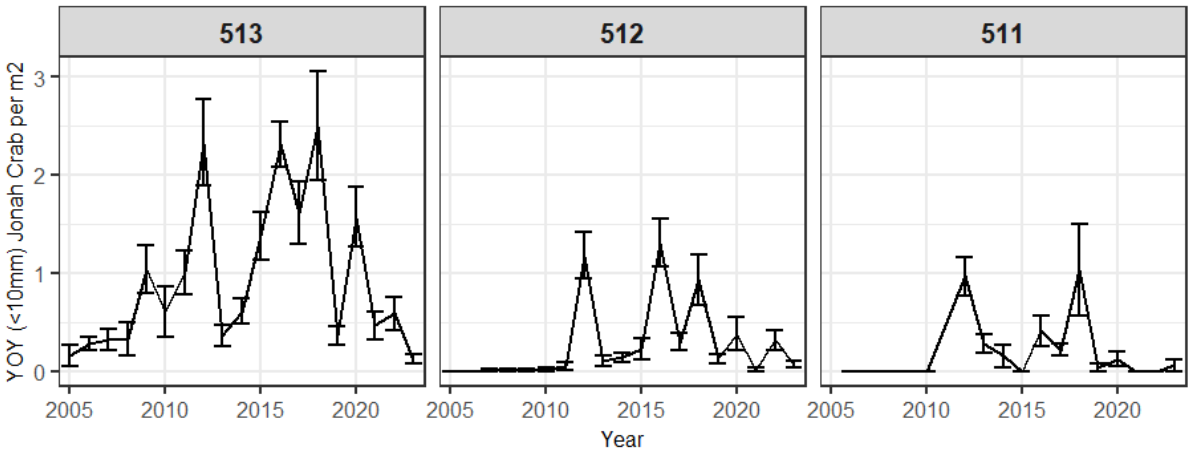

Figure 2. Density of YOY (<10mm carapace width) Jonah crab over time in the Maine Settlement Survey by statistical area.

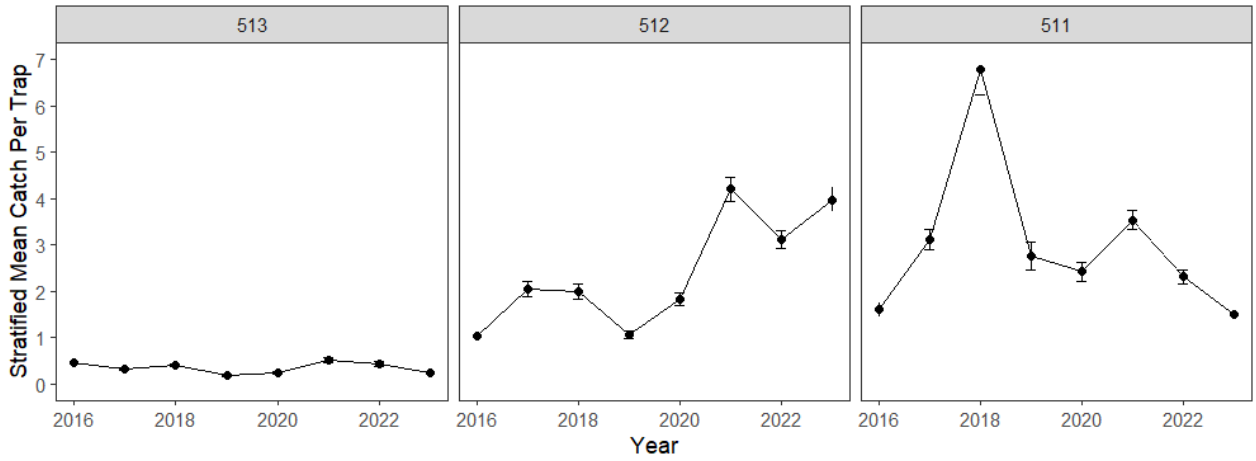

Figure 3. Stratified mean of Jonah crab from Maine Ventless Trap Survey 2016-2023. Standard error shown.

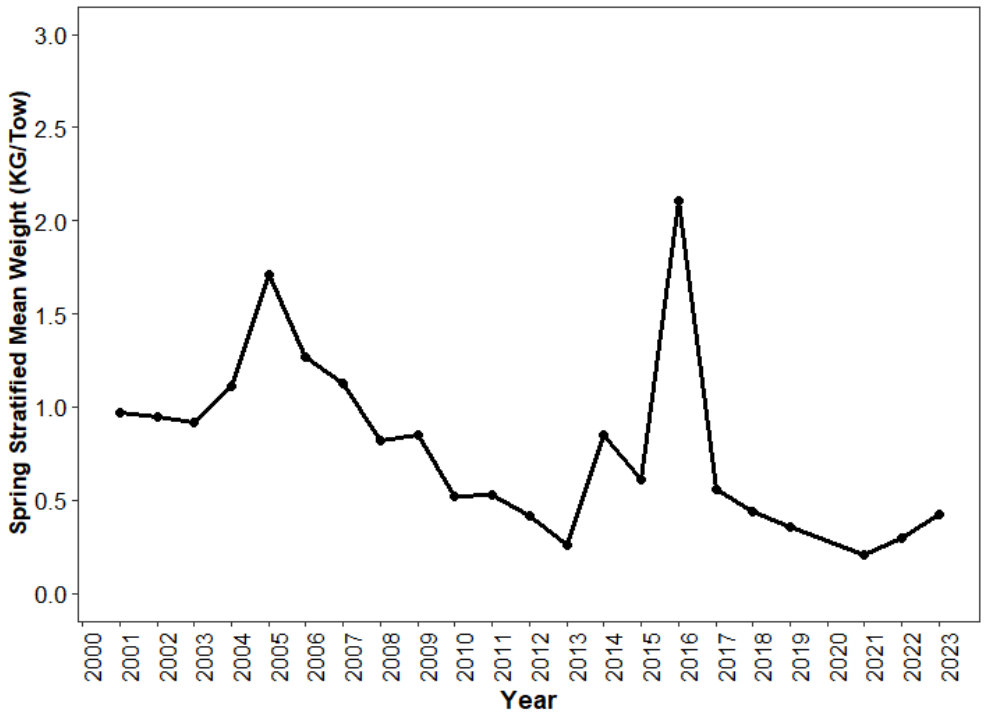

Figure 4. Stratified mean weight (kg/tow) of Jonah crab for Spring Maine-New Hampshire Inshore Trawl Survey 2001-2023.

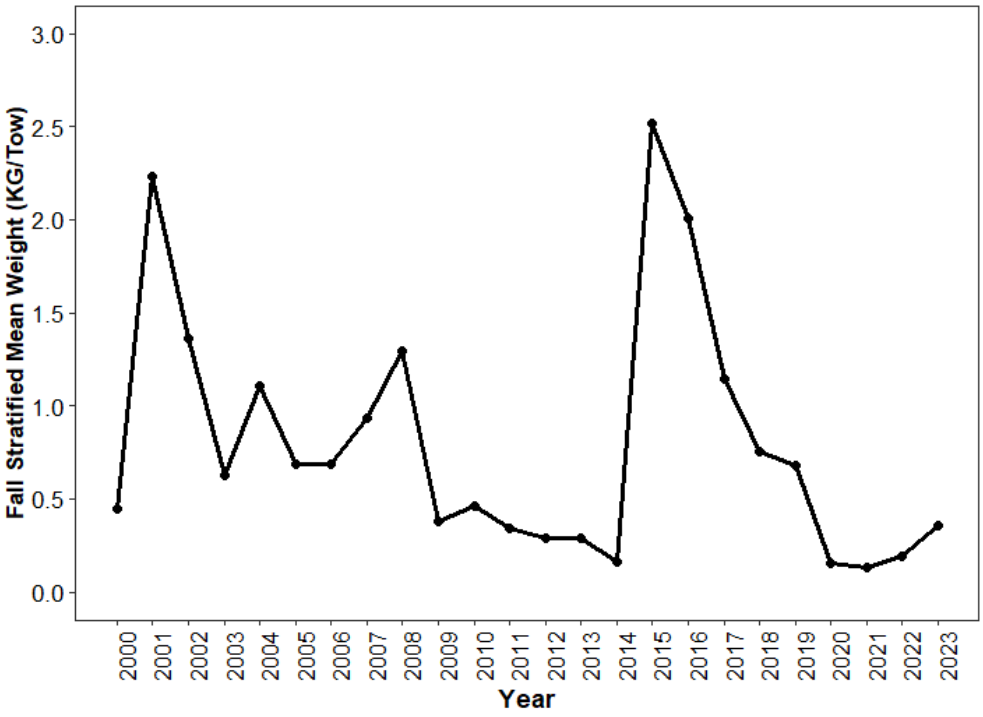

Figure 5. Stratified mean weight (kg/tow) of Jonah crab for Fall Maine-New Hampshire Inshore Trawl Survey 2000-2023.

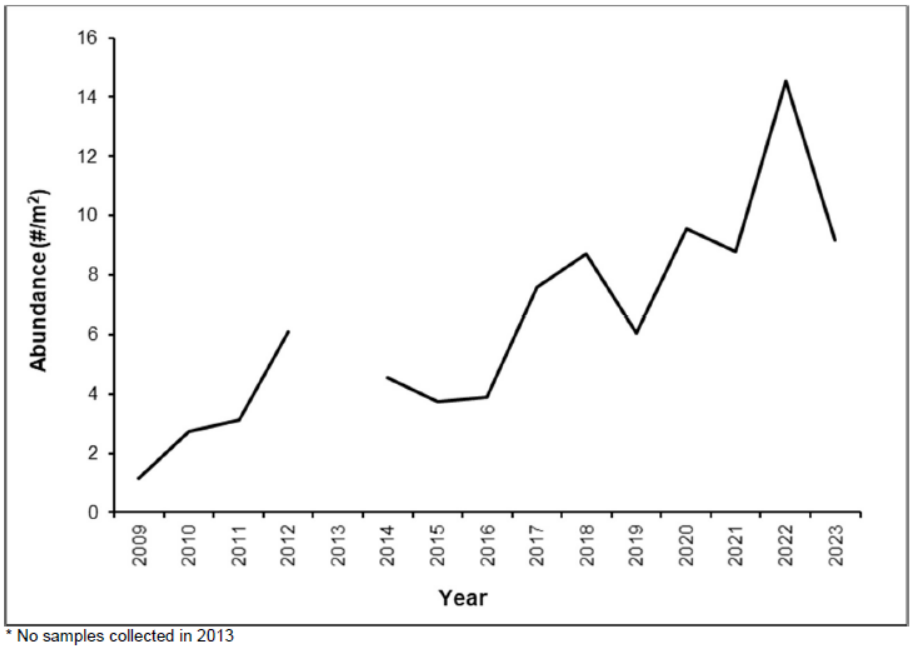

Figure 6. Catch per unit effort (#/m^2) of Jonah crab during the American Lobster Settlement Index Survey, in New Hampshire, from 2009 through 2023.

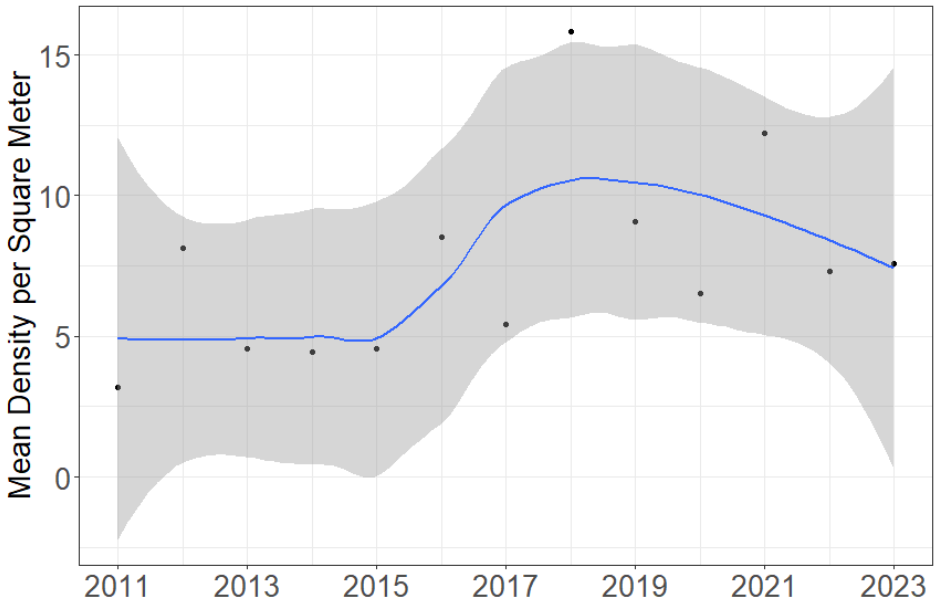

Figure 7. Mean number of Jonah crab per square meter from the MA DMF Settlement Survey from the Gulf of Maine (GOM) region. Black dots are annual means, blue line is a Loess soother, gray area is confidence interval around the Loess smoother.

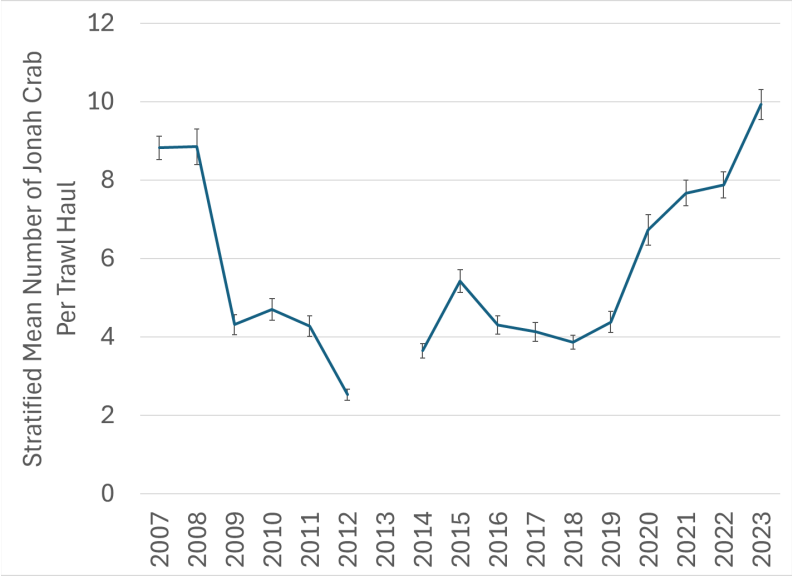

Figure 8. Mean number of Jonah crabs per trawl haul from ventless traps from GOM region of the MA DMF Ventless Trap Survey (standardized to a 6-pot trawl with three vented and three ventless traps). Error bars are two times the standard error. The survey was not conducted in 2013 due to a gap in funding.

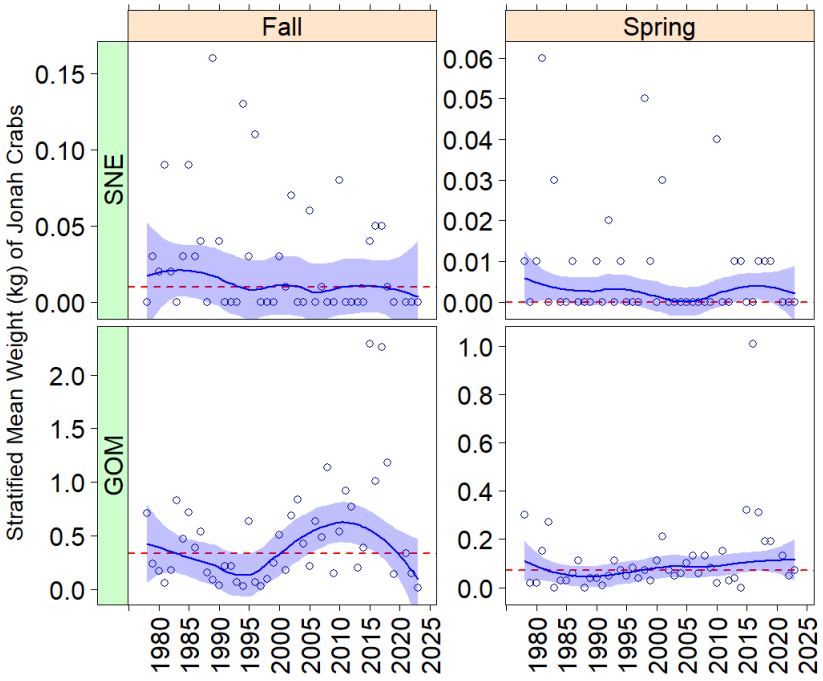

Figure 9. Stratified mean weight (kg) of Jonah crab from the MA DMF Trawl Survey. The left column shows the fall surveys, the right columns show the spring surveys. Southern New England (SNE) is on the top row, Gulf of Maine (GOM) is on the bottom. Red dashed line is the time series median. Blue line is a trend line (Loess smoother), and the blue shaded area is the confidence interval around the trend line. The survey was not conducted in 2020 due to the Covid-19 pandemic.

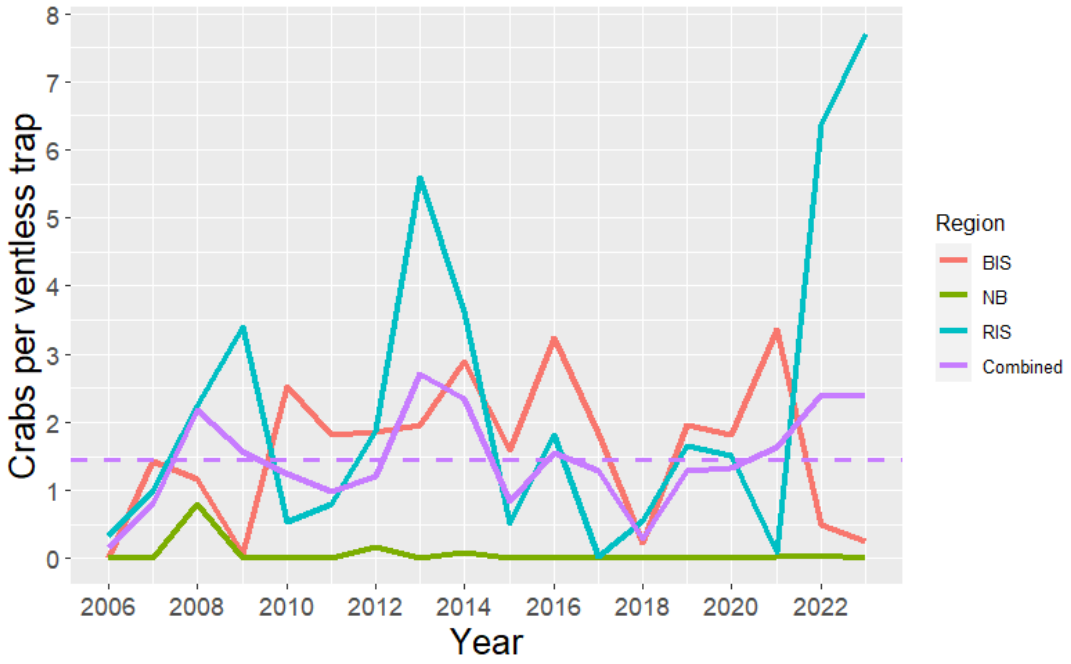

Figure 10. Rhode Island ventless trap survey index of Jonah crab abundance by region: Narragansett Bay (NB), Rhode Island Sound (RIS), and Block Island Sound (BIS). Time series mean for the combined region is presented as a dashed purple line.

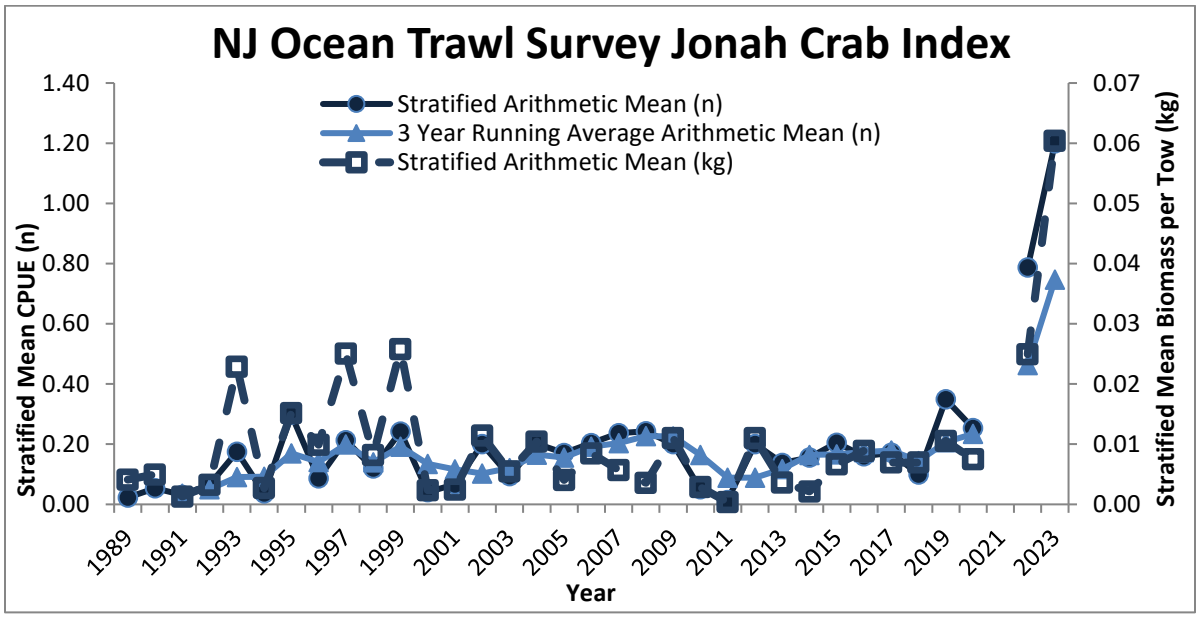

Figure 11. Stratified mean CPUE of all Jonah crab collected aboard the NJDFW Ocean Trawl Survey. The survey stratifies sampling in three depth gradients, inshore (18'-30'), mid-shore (30'-60'), offshore (60'-90'). The mean CPUE was calculated as the sum of the mean weight (in kg) of Jonah crab per size class collected in each sampling area weighted by the stratum area. *NOTE: No April 2019 Survey was conducted due to Research vessel mechanical issues. Due to the COVID-19 pandemic, Apr-Oct 2020 and 2021 CPUE and indices were not obtained.

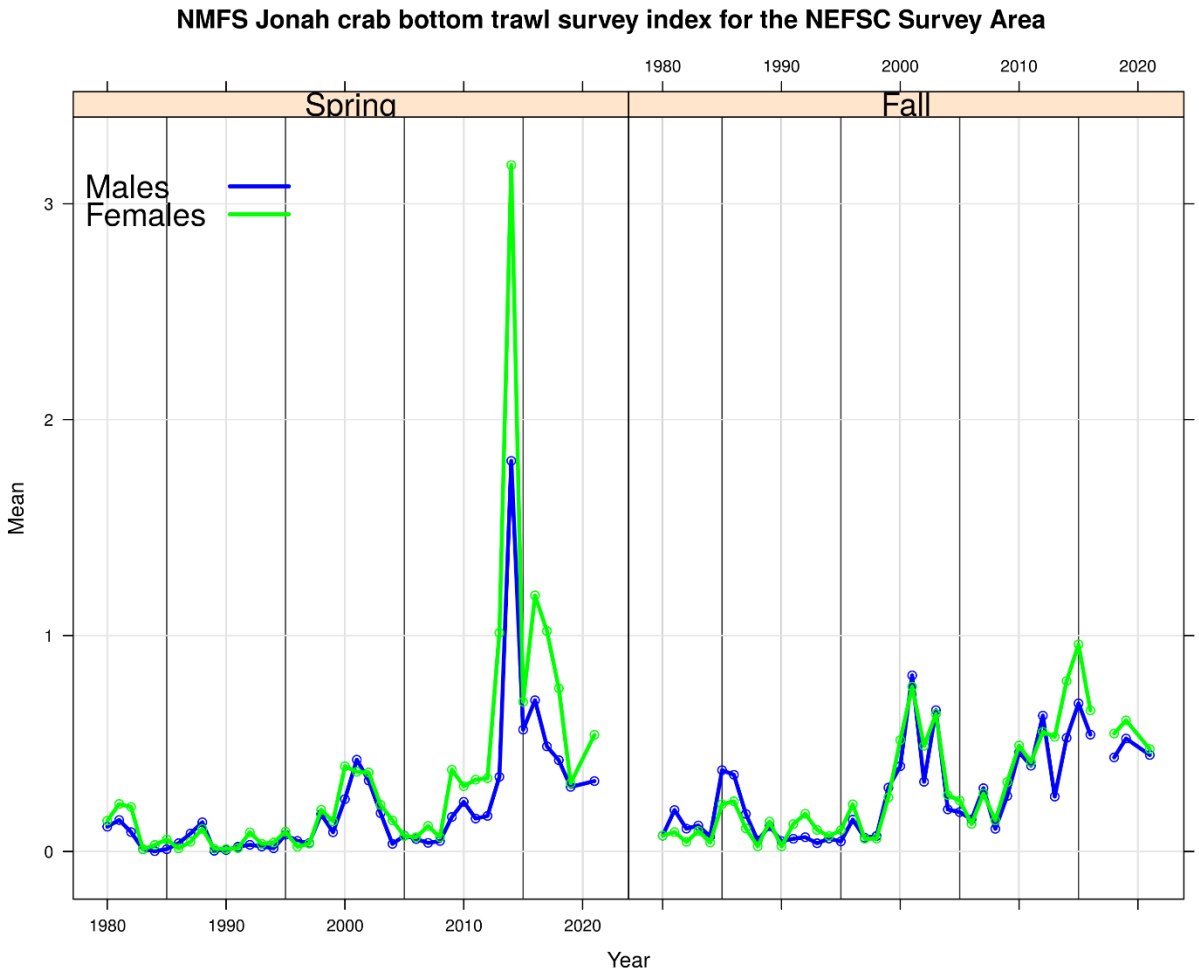

Figure 12. NMFS Jonah Crab index (mean number per tow) from the bottom trawl survey for the NEFSC Survey Area, through fall 2021. There was no survey conducted in 2020 due to the COVID-19 pandemic. 2022 and 2023 data are not yet available.

Atlantic States Marine Fisheries Commission

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Law Enforcement Committee
Meeting Summary

October 1, 2024

Committee Members: Scott Pearce, Chair, FL; Rob Beal, ME; Delayne Brown, NH; Keith Williams, CT; Sean Reilly / Thomas Gadomski, NY; Brian Scott, NJ; Nicholas Couch, DE; Matt Rogers, VA; Michael Paul Thomas, SC; Robert Hogan, NOAA GC; Katie Moore, USCG

ASMFC Staff: Toni Kerns, Caitlin Stark, Madeline Musante and Kurt Blanchard

Other Participants: Carl Lemire NOAA

The Law Enforcement Committee (LEC) conducted a virtual meeting on October 1, 2024, to discuss Electronic Vessel Tracking for Federal Permit Holders as required under Addendum XXIX to Amendment 3 to the American Lobster Fishery Management Plan and Addendum IV to the Jonah Crab Fishery Management Plan. **Specifically, the LEC was asked by the chair of the American Lobster Management Board (Board) to think about a definition of fishing as it relates to vessel tracking in the federal lobster fishery.**

Ms. Caitlin Starks, ASMFC FMP coordinator presented on the development of this addendum and the current state of the fishery management plan, including Board discussion on the 24/7 tracking requirement under Addendum XXIX and industry concerns over privacy. Caitlin Starks offered insight into the "Work Group" report on potential modifications to the vessel tracking program that would address privacy concerns while maintaining necessary data collection, as well as the LEC recommendations on development of vessel tracking in this fishery.

A general discussion ensued with members of the committee, ASMFC staff and a VMS specialist from NOAA. Topics such as the definition of fishing, geofencing, snoozing and privacy concerns were discussed in detail, with many opinions being offered. A breakdown of these topics are as follows:

Geofencing

Geofencing has a practical use in vessel monitoring for closed areas and crossing of lines of demarcation when used in concert with satellite monitoring. Geofencing is not practical in the application of tracking lobster vessels in the northeast, especially in Maine where due to the geography of the coastline there is poor cellular service. Many federally permitted vessels fish nearshore and without an adequate cellular or satellite service signal which would translate to a significant loss of data.

Snoozing or powering down the device.

The current specifications for the accepted devices in this program do not allow for a snooze or power down function. Trackers may only power down under specific circumstances and must have a letter of authorization from the program administrator to do so. The guidelines for this purpose are well defined and consistent between state and federal programs. The proposal of snoozing, or powering down, while in port and not fishing for short periods of time is not practical for the fisher and or the program administrator. Approval for each request would need to be granted, with consideration of the magnitude of requests. This would create an undue burden on both the fisher and the program administrator.

Privacy Concerns

Concerns over fisher privacy have been raised. With the 24/7 tracking of vessels and the multi-purpose use of these vessels outside of fishing, fishers are concerned that the scope of the program is reaching outside of the permitted activity. As the plan is written, and depending on how the state regulation is adopted, it may be considered prima facia evidence of a violation for just operating a federally permitted lobster / Jonah crab fishing vessel without the vessel tracker being powered on. Law enforcement would not typically prosecute a case of this nature without contacting the vessel operator and providing evidence of the vessel being used for the permitted activity.

Definition of Fishing

The Magnuson Stevens Fishery Conservation and Management Act clearly defines the activity of fishing:

- The term "fishing" means— (A) the catching, taking, or harvesting of fish; (B) the attempted catching, taking, or harvesting of fish; (C) any other activity which can reasonably be expected to result in the catching, taking, or harvesting of fish; or (D) any operations at sea in support of, or in preparation for, any activity described in subparagraphs (A) through (C). Such term does not include any scientific research activity which is conducted by a scientific research vessel.

States have adopted similar definitions for each of their respective fishery programs. These definitions may not be identical in wording, but the general context is the same. The committee discussed narrowing this definition to be more specific to lobster fishing and to clarify what elements would need to be met by law enforcement to show a fisher / vessel is engaged in the permitted activity. Topics such as bait being on board the vessel, targeted species being on board the vessel, working condition of the vessel, working condition of the captain and crew, were all discussed. The concept of declaring in and out of a fishery as used in the Federal VHS program was also discussed. With the plan as written, the committee could not come to a consensus of a definition for this purpose.

Additional Considerations

The committee discussed evidentiary elements needed or helpful for making a case for non-compliance relevant to this topic. Having a tracker that has a visual indicator on the device to show if a tracker is powered on or off would aid law enforcement in recognizing compliance. Additionally, having the ability to communicate via the device for a fisher to hail in or out of the fishery may alleviate privacy concerns among fishers.

There was additional discussion on who has the burden of proving a fisher is engage in the fishery if non- 24/7 tracking is pursued. Would the fisher need to show they are not engaged in the permitted activity or is it the responsibility of the regulator? This burden would typically fall on the regulator. The standard for burden of proof in a criminal or civil case would rest on the prosecution and or plaintiff, respectfully.

The following excerpt is from the Guidelines for Resource Managers on the Enforceability of Fishery Management Measures (May 2024).

VESSEL MONITORING SYSTEM (VMS)

Definition: A requirement to keep a positioning transmitter (transponder) onboard a fishing vessel. The transponder transmits position and movement information at specified time intervals to the management agency.

Average Overall Rating: 3.82

Recommendations:

- As VMS use is expanded, it should incorporate data transmission regarding gear onboard and the fish being targeted. It can increase the efficiency and effectiveness of enforcement patrols and inspections but does not replace on-the-water or dockside enforcement requirements.
- VMS should be considered for any large-scale fishery that is conducted in remote waters or offshore where at-sea and airborne enforcement is difficult or inefficient.