# April 2021 Council Meeting Webinar 

Tuesday, April 6 - Thursday, April 8, 2021
Meeting Page: https://www.mafmc.org/briefing/april-2021

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## Agenda

## Tuesday, April 6

| 9:00 a.m. - 10:00 a.m. | Ecosystem Approach to Fisheries Management (EAFM) Updates (Tab 1) <br> $-\quad$ Summer flounder recreational discard management strategy evaluation <br> $-\quad$ Other EAFM related activities |
| :--- | :--- |
| 10:00 a.m. | Council Meeting with the Atlantic States Marine Fisheries Commission's <br> Summer Flounder, Scup, and Black Sea Bass Management Board |
| 10:00 a.m. - 12:00 p.m. |  |

## Wednesday, April 7

| 9:00 a.m. - 10:30 a.m. | Blueline Tilefish Specifications (Tab 3) |
| :---: | :---: |
|  | - Develop and approve 2022-2024 blueline tilefish specifications |
| 10:30 a.m. - 12:00 p.m. | Golden Tilefish Multi-Year Specifications Framework - Meeting 1 (Tab 4) |
|  | - Review and approve draft alternatives |
| 12:00 p.m. - 1:00 p.m. | Lunch |
| 1:00 p.m. - 2:00 p.m. | Listening Session on President Biden's Executive Order on Tackling the Climate Crisis at Home and Abroad (Tab 5) <br> Mr. Paul Doremus, NOAA Fisheries Acting Assistant Administrator |
|  | - Presentation and discussion |
| 2:00 p.m. - 3:00 p.m. | 2021 Mid-Atlantic State of the Ecosystem Report and EAFM Risk Assessment (Tab 6) |
|  | Dr. Sarah Gaichas, NEFSC |
|  | - Review and provide feedback for future reports |
| 3:00 p.m. - 4:00 p.m. | East Coast Climate Change Scenario Planning Initiative (Tab 7) |
|  | Update on NRCC discussions |
|  | - Review plan for scenario planning process |

## Thursday, April 8

| 9:00 a.m. - 10:00 a.m. | Presentation on Climate Change Science Efforts Underway at the <br> Northeast Fisheries Science Center <br>  <br>  <br> Dr. Vincent Saba, NEFSC |
| :--- | :--- |

10:00 a.m. - 1:00 p.m. Business Session
Committee Reports (Tab 8)

- Scientific and Statistical Committee
- Research Steering Committee

Executive Director's Report (Tab 9)
Dr. Chris Moore

- Approve revised NTAP charter

Organization Reports

- NMFS Greater Atlantic Regional Office
- NMFS Northeast Fisheries Science Center
- NOAA Office of General Counsel
- NOAA Office of Law Enforcement
- US Coast Guard


## Liaison Reports (Tab 10)

- New England Council
- South Atlantic Council


## Continuing and New Business

This meeting will be recorded. Consistent with 16 USC 1852, a copy of the recording is available upon request.

The above agenda items may not be taken in the order in which they appear and are subject to change, as necessary. Other items may be added, but the Council cannot take action on such items even if the item requires emergency action without additional public notice. Non-emergency matters not contained in this agenda may come before the Council and / or its Committees for discussion, but these matters may not be the subject of formal Council or Committee action during this meeting. Council and Committee actions will be restricted to the issues specifically listed in this agenda. Any issues requiring emergency action under section 305(c) of the Magnuson-Stevens Act that arise after publication of the Federal Register Notice for this meeting may be acted upon provided that the public has been notified of the Council's intent to take final action to address the emergency. The meeting may be closed to discuss employment or other internal administrative matters.

# Mid-Atlantic Fishery Management Council 

February 10-11, 2021
Webinar Meeting

## MOTIONS

## Wednesday, February 10, 2021

Bluefish Allocation and Rebuilding Amendment<br>Move to approve the Bluefish Allocation and Rebuilding Amendment joint public hearing document and Commission draft amendment document for public comment (as modified today).<br>Council: Duval/Hemilright (motion carries by consent)<br>Board: Haymans/Miller (motion carries by consent)<br>Motion carries

Thursday, February 11, 2021
Executive Director's Report
Move to approve the proposed revisions to the SOPP as presented here today.
Hughes/Wilke
Motion carries by consent with 1 abstention by NMFS

## Continuing and New Business

Move the Council charge the Ecosystem Committee to initiate a review of potential methods to address management of species as a result of their shifting stocks.
DiLernia/Davidson (6/13/0)
Motion fails

## Stock Status of MAFMC-Managed Species

$$
\text { (as of } 3 / 22 / 21 \text { ) }
$$

| SPECIES | STATUS DETERMINATION CRITERIA |  | Stock Status | Most Recent Assessment |
| :---: | :---: | :---: | :---: | :---: |
|  | Overfishing <br> $F_{\text {threshold }}$ | Overfished $1 / 2 B_{\text {MSY }}$ |  |  |
| Summer Flounder | F35\% ${ }_{\text {MSP }}=0.448$ | $\begin{gathered} 63 \\ \text { million lbs } \end{gathered}$ | No overfishing Not overfished | Most recent benchmark assessment was 2018. |
|  | F40\% ${ }_{\text {MSP }}=0.215$ | $\begin{gathered} 103.64 \\ \text { million Ibs } \end{gathered}$ | No overfishing Not overfished | Most recent operational assessment was 2019. |
| Black Sea Bass | F40\% ${ }_{\text {MSP }}=0.46$ | $\begin{gathered} 15.53 \\ \text { million lbs } \end{gathered}$ | No overfishing Not overfished | Most recent operational assessment was 2019. |
|  | $\mathrm{F}_{35 \% \mathrm{SPR}}=0.183$ | $\begin{gathered} 219.05 \\ \text { million lbs } \end{gathered}$ | No overfishing Overfished | Most recent operational assessment was 2019. |
| Illex Squid (short finned) | Unknown | Unknown | Unknown Unknown | Most recent benchmark assessment was 2006; not able to determine current exploitation rates or stock biomass. |
| Longfin Squid | Unknown | $\begin{gathered} 46.7 \\ \text { million Ibs } \end{gathered}$ | Unknown Not overfished | Most recent assessment was 2020; not able to determine current exploitation rates. |
| Atlantic Mackerel | $\mathrm{F}_{40 \%}=0.26$ | 217.0 million pounds | Overfishing Overfished | Most recent benchmark assessment was 2017 |
| Butterfish | $\begin{gathered} \mathrm{F}_{\text {Proxy }}=2 / 3 \mathrm{M} \\ =0.81 \end{gathered}$ | $\begin{gathered} 50.3 \\ \text { million lbs } \end{gathered}$ | No overfishing Not overfished | Most recent assessment was 2020. |
| Chub Mackerel | At least 3,026 <br> MT of catch per year | At least 3,026 MT of catch three years in a row | No overfishing Not overfished | No stock assessment. |


| SPECIES | STATUS DETERMINATION CRITERIA |  | Stock Status | Most Recent Assessment |
| :---: | :---: | :---: | :---: | :---: |
|  | Overfishing <br> $F_{\text {threshold }}$ | Overfished $1 / 2 B_{\text {MSY }}$ |  |  |
| Surfclam | $\mathrm{F} / \mathrm{F}_{\text {threshold }}=1{ }^{\text {a }}$ | SSB $/$ SSB $_{\text {threshold }}=1{ }^{\text {b }}$ | No overfishing Not overfished | Most recent assessment was 2020 |
| Ocean Quahog | $\mathrm{F} / \mathrm{F}_{\text {threshold }}=1{ }^{\text {c }}$ | SSB/SSB ${ }_{\text {threshold }}=1{ }^{\text {d }}$ | No overfishing Not overfished | Most recent assessment was 2020. |
| Golden Tilefish | $\mathrm{F}_{38 \% \mathrm{MSP}}=0.310$ | $10.46$ <br> million Ibs | No overfishing Not overfished | Most recent assessment update was 2017. |
| Blueline Tilefish | Unknown | Unknown | South of Cape Hatteras: <br> No overfishing <br> Not overfished <br> North of Cape Hatteras: Unknown Unknown | Most recent benchmark assessment was 2017. |
| Spiny Dogfish (Joint mgmt with NEFMC) | $\mathrm{F}_{\text {MSY }}=0.2439$ | 175.6 <br> million Ibs Female SSB | No overfishing Not overfished | Most recent assessment update was 2018. |
| Monkfish (Joint mgmt with NEFMC) | NFMA \& SFMA $F_{\text {MAX }}=0.2$ | NFMA - <br> $1.25 \mathrm{~kg} /$ tow <br> SFMA - <br> $0.93 \mathrm{~kg} /$ tow (autumn trawl survey) | Unknown Unknown | Recent benchmark failed peer review and invalidated previous 2010 benchmark assessment results. Operational assessment in 2019 used survey data to scale earlier ABC. |

SOURCES: Office of Sustainable Fisheries - Status Report of U.S. Fisheries; SAW/SARC, SEDAR, and TRACAssessment Reports.

[^0]
## Stock Size Relative to Biological Reference Points

(as of $3 / 22 / 21$ )


## Notes:

- Unknown $\mathrm{B}_{\text {msy }}$ - Illex squid, monkfish (NFMA \& SFMA), blueline tilefish (North of Cape Hatteras), and chub mackerel.
- Of the 15 species managed by the Council, 5 are above $B_{\text {msy }}, 6$ are below $B_{\text {msy }}$, and 4 are unknown.

| Year of data used to determine <br> stock size |  |
| :--- | :--- |
| Atlantic Mackerel | 2016 |
| Black Sea Bass | 2018 |
| Bluefish | 2018 |
| Butterfish | 2019 |
| Golden Tilefish | 2016 |
| Longfin Squid | $2018-2019$ <br> (average) |
| Ocean Quahog | 2019 |
| Spiny Dogfish | 2018 |
| Surfclam | 2019 |
| Scup | 2018 |
| Summer Flounder | 2017 |

## Fishing Mortality Ratios for MAFMC-Managed Species

(as of 3/22/21)



## Notes:

- Unknown fishing mortality: Illex squid, Longfin squid, monkfish (NFMA and SFMA), blueline tilefish (North of Cape Hatteras), and chub mackerel.
- Of the 15 species managed by the Council, 9 are above $F_{\text {msy }}, 1$ is above, and 5 are unknown.

| Year of data used to <br> determine fishing mortality |  |
| :--- | :--- |
| Atlantic Mackerel | 2016 |
| Black Sea Bass | 2018 |
| Bluefish | 2018 |
| Butterfish | 2019 |
| Golden Tilefish | 2016 |
| Ocean Quahog | 2019 |
| Spiny Dogfish | 2017 |
| Surfclam | 2019 |
| Scup | 2018 |
| Summer Flounder | 2017 |

MID-ATLANTIC

# Ecosystem Approach to Fisheries Management (EAFM) Updates April 2021 Council Meeting 

Prepared By: Brandon Muffley, Council Staff

March 24, 2021

This briefing document provides an update on the developments and accomplishments of projects that continue to advance and implement the Mid-Atlantic Fishery Management Council's (Council) Ecosystem Approach to Fisheries Management (EAFM) Guidance Document, most notably the summer flounder management strategy evaluation (MSE) and a climate driven short-term projections project. The Council has been briefed on both projects in the past, with the latest update at the October 2020 Council meeting ${ }^{1}$. Here we provide some short background information but focus on the activities that have taken place since the last update and on future work and timelines. For the summer flounder MSE project, it is anticipated that this will be the last general update to the Council and the next time this topic comes before the Council will be at a joint meeting with the Atlantic States Marine Fisheries Commission Summer Flounder, Scup, and Black Sea Bass Board for specific feedback and direction as the MSE progresses (more information in memo).

In addition, during the April 2021 meeting, the Council will receive the 2021 EAFM Risk Assessment update that is included as part of the Mid-Atlantic State of the Ecosystem agenda item (materials behind Tab 6). The updated risk assessment allows the Council to re-evaluate risk on an annual basis, track changes in risk across managed species and sectors, and identify possible management and science priorities.

## Summer Flounder Management Strategy Evaluation:

## Background

Analyzing management procedures through a comprehensive management strategy evaluation (MSE) is the third step in the Council's EAFM structured framework process (Figure 1). In December 2019, the Council initiated the development of an MSE following the completion of a conceptual model process which helped identify key management questions to address. Using the results of the conceptual model, the Council agreed to conduct an MSE that will evaluate different management strategies designed to minimize discards in the recreational summer flounder fishery.

[^1]The objectives of this MSE are to (1) evaluate the biological and economic benefits of minimizing discards (dead and alive) and converting discards into landings in the recreational summer flounder fishery, and (2) identify management strategies to effectively realize these benefits. Utilizing an MSE to help evaluate these broad objectives will provide the Council an opportunity to balance different management strategies and their associated biological, social, and economic trade-offs that best address their management objectives within an ecosystem context. This MSE also provides a unique opportunity to align the EAFM process and the Council's typical recreational management process.

Because the Council jointly manages summer flounder with the Atlantic States Marine Fisheries Commission (ASMFC), any management outcomes and alternatives developed as a result of this project will require a joint decision. Therefore, while the MSE is a Council led effort, the MSE process will also require extensive involvement and engagement of the ASMFC Summer Flounder, Scup, and Black Sea Bass Board (Board),


Figure 1. The Mid-Atlantic Fishery Management Council's EAFM structured decision framework to incorporate ecosystem considerations into management (from Gaichas et al. 2016). staff, and stakeholders.

A critical component of MSE development is an inclusive stakeholder process. Stakeholder engagement will be particularly important for this project since the MSE process is relatively new to the Council and Board and there has been mixed reaction to the use and success of MSEs in other regions. In an effort to solicit as much stakeholder input for this project as feasible, the Council is planning an extensive outreach and engagement approach (Figure 2, see additional details on these activities in section below). Stakeholders will help the Council and Board identify clearly defined objectives, performance metrics, and management strategies to test as part of the MSE.

Additional details about the summer flounder MSE project, including more information about the EAFM structured framework, can be found at a recently developed webpage devoted to the project: https://www.mafmc.org/actions/summer-flounder-mse. This page also includes information about upcoming meetings and activities, technical work group membership and work products.

## Stakeholder Engagement

## Advisory Panel Kick-Off Webinar and Mock Workshop

In September 2020, a kick-off webinar and mock MSE workshop was held with the Council's Ecosystem and Ocean Planning Advisory Panel (AP) and the Council and ASMFC Summer Flounder, Scup, and Black Sea Bass APs ${ }^{2}$. This webinar introduced AP members to the MSE process and simulated a mock MSE workshop using an example fishery with the goal of familiarizing participants about MSE goals and expectations to help provide for more productive stakeholder workshops in the future.

The workshop was well attended (55 participants) with a diverse mix of participants and AP members that provided a lot of good insights during the workshop. Workshop attendees were

[^2]also provided a survey following the workshop to obtain insights on their perspectives regarding workshop materials, structure, format, and overall value. In general, the response from workshop participants was very positive and most indicated they learned something new or, by the end of the workshop, understood the value of conducting an MSE. Participants also provided feedback on areas of the workshop that did not work as well and this input was considered by the technical work group to help plan and improve future stakeholder workshops.

The follow-up survey also included a solicitation of interest to serve on a core stakeholder group that would participate in future workshops specific to the summer flounder recreational discards MSE project (more details on the core stakeholder group can be found in sub-section below). As noted above, the survey was sent to all workshop participants and it was also sent to all AP members to help ensure a broad and diverse group of potential participants. There was high interest from across the AP in participating on the core stakeholder group with over $95 \%$ of the survey respondents expressing interest. The technical work group had initially considered using the AP membership to populate the core stakeholder group; however, after further discussion and consideration, it was determined that a broader core stakeholder group, that includes AP members, would be more appropriate. This approach would help ensure core group members represent and can provide insight from key stakeholder groups. Therefore, the technical work group proposed additional solicitation opportunities be provided for interested stakeholders.

## Stakeholder Scoping Feedback

The technical work group also proposed additional stakeholder scoping and outreach initiatives, beyond AP membership, to obtain as much input from as many interested individuals as possible (Figure 2). The technical work group felt that investing in more outreach up front and early will be more beneficial to the entire process, lead to more productive core stakeholder group workshops, and greater buyin by the public in the process and outcomes. Each initiative could then build upon each other where the input and results from one activity would then be used to help inform and focus the discussion and input in later activities.

The first of these additional initiatives wan an online scoping feedback form ${ }^{3}$. This method was an efficient, simple, and effective way to collect information from any interested stakeholder. The scoping form solicited input on management objectives, performance metrics, and identifying uncertainties associated with recreational summer flounder discards. It also included a solicitation for the core stakeholder group.

From January 11 - 25, 2021, the Council solicited public input regarding current and future management of the recreational summer flounder fishery through an online


Figure 2. Process and approach for stakeholder engagement and input for EAFM summer flounder MSE project. scoping form. The scoping form contained a number of mandatory, close-ended questions (i.e., participants provided options to choose) and optional, open-ended questions covering a variety of topics such as recreational discard concerns and fishery implications, management objectives and strategies, data sources, and uncertainties. The

[^3]feedback form also requested input regarding the core stakeholder group and, if a respondent was interested, additional questions regarding their fishing background were included.

Response to the scoping feedback was extremely high, with a total of 818 individual responses received and at least one response from each state from Massachusetts through North Carolina, the entire summer flounder management unit. Response was also very high to the optional, openended questions with as many as $56 \%$ of all respondents providing detailed input to a particular question. In addition, 220 respondents recommended a peer for consideration as a core stakeholder member and over $31 \%$ of all respondents indicated they were interested in serving as a core stakeholder member.

The technical work group then worked to analyze and summarize all of the input received in order to find common themes, evaluate regional similarities/differences, identify possible priorities, and the potential application of stakeholder suggestions and ideas within the scope of the MSE. The initial analysis and results will be used to help structure and focus feedback and input during the regional workshops (more information in sub-section below). The work group will continue to evaluate and incorporate the scoping feedback as the MSE progresses and to help identify well-defined objectives and strategies.

A general summary of the top ranked concerns, management objectives, and strategies across all respondents and across regions (MA-CT, NY-DE, and MD-NC) are presented here. Additional background information, analysis and approaches, and findings from the stakeholder scoping form can be found in the supplemental document behind Tab 1 of briefing book, titled "MSE Stakeholder Scoping - Summary of Stakeholder Feedback and Regional Evaluation".

Respondents were first asked about their perceived discard concerns to understand what the current issues are and what concerns are driving a desire to improve management of recreational discards in the summer flounder fishery. Respondents were asked to rank their concern from "not concerned" to "major concern" for 16 specific discard related impacts in the recreational summer flounder fishery. Table 1 identifies the top 5 concerns ranked by all respondents and by region as a "major concern".

Table 1. Top five discard concerns identified by region and for all respondents. Same concern is noted with the same color across groupings.

| Rank | All Respondents | MA-CT | NY-DE | MD-NC |
| :---: | :--- | :--- | :--- | :--- |
| 1 | High discard rates a nd <br> mortality offemales | High discard rates and <br> mortality offemales | High discard rates and <br> mortality offemales | Ability to retain fish |
| 2 | Ability to retain fish | Lack of robust and trusted <br> data | Lack of robust and trusted <br> da ta | Angler satisfaction |
| 3 | Lack of <br> fa irness/inequitable <br> access among states | Lack of <br> fa irness/inequitable <br> access among states | Lack of <br> fairness/inequitable <br> access among states | High discard rates and <br> mortality offemales |
| 4 | Future management <br> implications to address <br> discards | Proper ha ndling <br> techniques | Managementresponse to <br> stakeholder input | Managementresponseto <br> stakeholder input |
| 5 | Lack of robust and <br> trusted data | Three tied for 5th | Future management <br> implications to address <br> discards | Two tied for 5th |

The next set of questions asked respondents about management objectives to understand what a successful recreational fishery would look like that minimized discards and discard mortality. Table 2 identifies the top 5 management objectives identified by all respondents and by region.

Table 2. Top five management objectives identified by region and for all respondents. Same concern is noted with the same color across the groupings.

| Rank | All Respondents | MA-CT | NY-DE | MD-NC |
| :---: | :--- | :--- | :--- | :--- |
| 1 | Maximize chances a trip <br> produces a legal sized <br> fish | Minimize risk of <br> overfishing and stock <br> becoming overfished | Maximize chances a trip <br> produces a legal sized fish | Improve quality of <br> recreational fishing <br> experience |
|  | Improvequality of <br> recreational fishing <br> experience | Minimize the mortality of <br> relea sed summer flounder | Minimize the mortality of <br> released summer flounder | Minimize negative <br> biologicalimpacts to the <br> summer flounder stock |
| 3 | Minimize the mortality <br> of released summer <br> flounder | Minimize negative <br> biologicalimpacts to the <br> summer flounderstock | Minimize the differences <br> in regula tions between <br> neighboring states | Maximize recreational <br> fishingparticipation in <br> all sectors |
| 4 | Minimize the differences <br> in regulations between <br> neighboring states | Maximize chances a trip <br> produces a legalsized fish | Improvequality of <br> recreational fishing <br> experience | Minimize risk of <br> overfishing and stock <br> becomingoverfished |
| 5 | Minimize risk of <br> overfishing a ndstock <br> becomingoverfished | Improvequality of <br> recreational fishing <br> experience | Reduce the harvest of <br> female summer flounder | Minimize the mortality <br> of released summer <br> flounder |

Finally, respondents were then asked about strategies that could be implemented to successfully achieve those objectives. Strategies identified here would consist of potential management actions or alternatives (e.g., slot limits, gear requirements, reporting requirements etc.) that should be evaluated in the MSE to determine if management objectives were achieved. Table 3 identifies the top 5 strategies by all respondents and all regions.

Table 3. Top five strategies identified by region and for all respondents (Question \#6). Same concern is noted with the same color across the groupings.

| Rank | All Respondents | MA-CT | NY-DE | MD-NC |
| :---: | :--- | :--- | :--- | :--- |
| 1 | Best practice <br> recommendations to <br> minimize recreational <br> discard mortality | Best practice <br> recommendations to minimize <br> recrea tional discard mortality | Implement lower size <br> limits | Expand the <br> recrea tional season |
| 2 | Establish slot size limits | Create an outreach program to <br> improve anglereducation on <br> proper discarding techniques | Establish slot size limits | Establish slot size <br> limits |
| 3 | Expand the recreational <br> sea son | Resea rch to validate or update <br> the current 10\% recreational <br> discard mortality rate | Research to validateor <br> updatethe current $10 \%$ <br> recreational discard <br> mortality rate | Research to validateor <br> updatethe current 10\% <br> recreationaldiscard <br> mortality rate |
| 4 | Researchto validateor <br> updatethe current 10\% <br> recreational discard <br> mortality rate | Expand use of electronic <br> reportingandvolunteer angler <br> surveys to report discards | Best practice <br> recommendations to <br> minimize recreational <br> discard mortality | Best practice <br> recommendations to <br> minimize recreational <br> discard mortality |
| 5 | Implementlower size <br> limits | Adjust regulations <br> dynamically through time <br> based onthe status of the <br> fishery | Expandthe recreational <br> sea son | Two tied for 5th |

The second additional stakeholder engagement initiative identified by the technical work group was a series of three regional MSE workshops. Similar to the online scoping feedback form, these regional workshops are intended to allow a broad group of stakeholders bring ideas into the process early on and before any analysis begins or any decisions are made, but in a more structured and interactive approach. Workshop participants will provide input on topics such as recreational discard concerns, possible management objectives, and performance metrics to achieve these objectives. The findings from the scoping feedback form will be used to help focus the discussion on these topics.

All regional workshops will be held virtually and begin with introductory presentations to familiarize participants with the Council's EAFM process, give a quick introduction to the MSE process and approach, and provide an overview of the regional results received through the scoping feedback. Everyone will then participate in both full group and smaller breakout sessions to allow for some focused discussion and feedback on each topic. Workshop participants will also be asked about their interest in potentially serving on the core stakeholder group or recommend someone for the group.

The three scheduled virtual regional workshops are as follows:

- Massachusetts through Connecticut: Monday, March 29th from 5:30 P.M. - 8:00 P.M.
- New York through Delaware: Wednesday, March 31 st from 5:30 P.M. - 8:00 P.M.
- Maryland through North Carolina: Monday, April 5th from 5:30 P.M. - 8:00 P.M.

For additional workshop information, including the agenda and all meeting materials, see the workshop webpage at: https://www.mafmc.org/workshop/summer-flounder-mse.

## MSE Core Stakeholder Group

As mentioned above and outlined in Figure 2, all the input received from these broad outreach activities will then feed into a series of more focused stakeholder workshops. For these workshops, a small core group of stakeholders (12-15 in total) representing the range of fishery perspectives will participate in a series of workshops to help the Council more efficiently and effectively progress through the MSE process. Core stakeholder group members will be asked to participate and attend all workshops, represent both their interests and those of the fishery, be open minded and collaborative, and support the potential outcomes of the MSE process.

Through the AP kick-off webinar and the scoping feedback form, 282 individuals have already expressed interest in being considered for the core stakeholder group and an additional 185 individuals have been recommended by their peers. It is anticipated that additional individuals will express interest after the completion of the regional workshops. Given this level of interest and the limited number of spots available for the core stakeholder group, careful consideration will be needed to identify the right mix of representation, background, and experience.

To begin the process of narrowing down possible participants, the technical work group has already started evaluating the responses interested individuals provided to a series of core group questions. Once the regional workshops are complete and all interested individuals have submitted their background information, the technical work group will evaluate all information and make recommendations regarding core group participants. The technical work group plans to develop a document that outlines the process of collecting information, evaluating respondents, and identifying the criteria and tools used by work group to reach their core group
recommendations. This document, including the core group recommendations, will then be provided to the Council and Board for their review and approval. Once finalized, the document and names and affiliation/representation of the core group members will be posted the MSE webpage: https://www.mafmc.org/actions/summer-flounder-mse.

## Next Steps and Anticipated Timeline

The proposed next steps and anticipated timeline remain very similar to what was presented to the Council in October. Once membership has been finalized, the technical work group and facilitator will begin planning and preparing to hold three core stakeholder group workshops for the project. These workshops would be spread out over the next 8-10 months. The first workshop, likely held in June, would solicit input and feedback on management objectives, performance metrics, and identifying uncertainties and unknowns. The second workshop would review initial model development and any preliminary results. The final workshop would review updated model development and preliminary "final" results.

After each core-group workshop, the Council's EOP and Summer Flounder, Scup, and Black Sea Bass Committees, along with a sub-set of members from the Board will meet to review the stakeholder feedback and input provided during these workshops. This sub-group of managers will provide further direction and refinement for the technical work group to consider. This would then be followed by check-ins during joint meetings of the full Council and Board. It is anticipated these check-ins would occur in August and December 2021 (Table 4). This iterative process and regular check-ins will ensure the technical work group is receiving input from stakeholders and managers to make


Figure 3. Proposed process for stakeholder and management input for EAFM summer flounder MSE project. sure project goals, objectives, and expectations are being met (Figure 3).

While originally unplanned stakeholder engagement opportunities were added since the last update, they are not expected to result in any delays to the project. These additional opportunities should help streamline the first round of workshops and meetings and keep the remaining tasks on schedule. It is anticipated the final results and management alternatives will be presented to the Council and Board for consideration in April/May 2022. Any outcomes and decisions, depending on their scope, could potentially be implemented for the 2023 recreational season as the Council and Board begin specification and regulation review and development in August 2022. Table 4 below provides an updated overview of MSE tasks/activities and the associated timelines.

Table 4. Anticipated timeline of activities associated with completion of the EAFM summer flounder management strategy evaluation project.

| Task/Activity | Timeframe <br> (subject to change) |
| :--- | :--- |
| Finalize technical work group membership and initial meeting | May 2020 |
| Kick-off webinar and mock workshop with Council and ASMFC advisory <br> panels (https://www.mafmc.org/council-events/2020/eop-sfsbsb-ap-meeting- <br> sept22) | September 2020 |
| Stakeholder scoping feedback form <br> (https:///www.mafmc.org/newsfeed/2021/summer-flounder-mse-comment- <br> opportunity) | January 2021 |
| Regional MSE workshops (https://www.mafmc.org/newsfeed/2021/council- <br> to-hold-virtual-summer-flounder-management-strategy-evaluation-mse- <br> workshops) | March - April 2021 |
| Finalize core stakeholder group participants; initial core stakeholder <br> workshop and Committee/Board sub-group meeting to develop <br> objectives/performance metrics/uncertainties; data synthesis, initial model <br> development and linking existing models | May - August 2021 |
| Simulation testing of management strategies; model refinement as necessary; <br> deliver interim results at second stakeholder workshop and Committee/Board <br> sub-group meeting | September - December <br> 2021 |
| Continue with MSE analysis; third stakeholder workshop and <br> Committee/Board sub-group meeting to review draft final results; refine <br> models and results, as needed | January 2022 - March <br> 2022 |
| Review final results; Council and ASMFC Board considers potential <br> management alternatives and action to address recreational summer flounder <br> discards | April/May 2022 |

## Short-Term Projections Project:

Significant progress continues to be made on the collaborative project between the Council and Dr. Malin Pinsky and Dr. Alexa Fredston from Rutgers University. This research project, funded by the Lenfest Ocean Program, will test new methods and models to predict short-term (the next one to ten years) climate-induced movements of diverse species that better align with management timescales ${ }^{4}$. The four focal species to be evaluated as part of the project include spiny dogfish, Illex squid, summer flounder, and gray triggerfish.

Since the Council's last update on the project in October 2020, there have been a number of advancements and activities associated with this project. The first set of dynamic range models that will be fit to the four focal species has been completed. These models include the following features and processes:

- Spatial population structure (one "patch" for each 1-degree latitude band)
- Dispersal between adjacent patches

[^4]- Life stage structure (3 stages - small juveniles, large juveniles, adults)
- Temperature-dependent growth between life stages or temperature-dependent fecundity

Once the process model component of the forecast has been completed, the team will proceed with observation models of the four focal species. Development of observation models for spiny dogfish and summer flounder began in late 2020. The next steps are to fit the model to data using tailored observation models that take into account each species' unique data distribution over space and time in various survey datasets. The group anticipates having fitted models for each focal species by summer 2021.

The group is also working on, or planning, a number of different outreach components to the project. The first manuscript describing the model and methods, testing it on simulated data, and applying it to a small test case will be submitted to a peer-reviewed journal in April. In addition, abstracts have been submitted to the to 2021 Ecological Society of America annual meeting and the Society for Industrial and Applied Mathematics annual meeting in order to present this work and get feedback on the project's theoretical aspects. Lastly, the group is planning a possible follow-up webinar in late summer/early fall with the Ecosystem and Ocean Planning (EOP) Committee and AP to provide an update and get feedback on the model development and preliminary results. Council staff will work with the project team and EOP leadership to determine an appropriate time and agenda for the webinar.

# Summer Flounder Management Strategy Evaluation Stakeholder Scoping 

Summary of Stakeholder Feedback and Regional Evaluation

March 2021

## Background:

From January 11 - 25, 2021, the Mid-Atlantic Fishery Management Council (Council) collected stakeholder feedback regarding the current and future management of the recreational summer flounder fishery ${ }^{1}$. Public input provided will help inform the development of a management strategy evaluation (MSE) which will evaluate different management strategies designed to minimize discards in the recreational summer flounder fishery. The results of the scoping feedback will be used by the Council, independent facilitators, and a technical work group to help guide model development and plan future stakeholder workshops.

The Council, along with several state and federal partners, notified stakeholders, permit holders, and interested parties about the scoping feedback form ${ }^{2}$ using their available listserv contacts and advisory panel membership lists. A total of 818 individual responses were received with at least one response from each state from Massachusetts through North Carolina, the entire summer flounder management unit. Respondents' answers could be submitted anonymously, or they could provide their name and email address. In addition, the scoping form included questions regarding a respondent's interest in potential participation in future MSE stakeholder workshops. If a respondent expressed interest, they were asked a series of additional questions regarding their fishing background. These questions provided the opportunity to collect some basic demographic information such as state fished and stakeholder type.

The answers from this sub-set of respondents ( 285 individuals or approx. $35 \%$ of all respondents) were then pooled into regional groupings (MA-CT, NY-CT, and MD-NC) and analyzed to identify regional differences/similarities and common themes. In addition, regional responses were compared to the entire dataset (i.e., all 818 responses) to evaluate the overall representativeness of the regional information. A summary of the results of this analysis are provided below and focuses on information provided regarding summer flounder discard concerns, possible management objectives, and potential strategies to achieve these objectives.

[^5]
## General Findings:

- Of the respondents that provided demographic information, over $60 \%$ were from New Jersey, followed by North Carolina (13\%) and Massachusetts (10\%) (Figure 1).
- Of the respondents that provided demographic information, recreational fishermen (private boat angler and shore angler) comprised nearly $84 \%$ of the response (Figure 2). This was followed by charter captain/owner (6.8\%) and then the general public (3.2\%).
- In general, the regional responses appear to be very reflective of the responses provided by all survey respondents (Figures 3, 5, and 8). The responses between the two groups are most similar for the discard concerns that were ranked as a "major concern" (Table 1); while only slightly less similar when identifying priority management objectives and strategies (Tables 4 and 5 ).
- Top discard concern: High discard rates and discard mortality of larger female summer flounder and potential negative impacts to stock (both groups)
- Top management objective: Maximize the chances a trip produces a legal sized summer flounder (both groups)
- Top strategy to achieve objective: Provide best practice recommendations to minimize recreational discard mortality (all respondents); Establish slot size limits (regional respondents)
- In general, the NY-DE and MD-NC region responses were more similar than those from the MA-CT region (Figures 4, 6, 9). For example, the NY-DE and MD-NC tended to rank a greater number of discard concerns as "major concern" compared to the MA-CT region. However, there was a lot of similarities and common themes when evaluating only the top five concerns, management objectives, and strategies across all respondents and all regions (Tables 1, 2, and 3).
- Response to the open-ended questions was very high and, in many cases, stakeholders provided extensive feedback. However, evaluating and summarizing this information can be challenging. Fortunately, using different techniques (Appendix A, Figure 1a and b), it was possible to find broad categories and common themes across all responses (Appendix A, Tables 1-6).
- For example, "Other discard concerns" identified by respondents were grouped into the following six broad categories, including one common theme associated with the category:
- Commercial Fishery - smaller commercial size limit
- Enforcement and Education - proper fish handling techniques
- Regulations -implement lower size limits
- Gear and Tackle - use of circle hooks
- Management - more responsive management
- Science and Data - estimated discard mortality rate is incorrect


## Regional Demographics:

A total of 818 individuals competed the summer flounder scoping form. Respondents were asked if they would be interested in potentially serving on a core group of stakeholders that would participate in future focused MSE workshops. If a respondent was interested, they were asked to provide additional information about themselves, including their fishing experience and relevant demographic information. A sub-set of the total respondents, 285 individuals or $35 \%$ of all respondents, indicated they were interested in the core group and this information was used to evaluate scoping responses by state, region, and sector.

The majority of the respondents indicated they were from New Jersey, which represented just over 64\% of all individual respondents (Figure 1). This was followed by North Carolina (13\%), Massachusetts ( $9.9 \%$ ), and New York ( $6 \%$ ). In general, the states with the greater response tend to account for a higher proportion of summer flounder harvest and many of these states (e.g., New Jersey and Massachusetts) used their state email listserv to send targeted notification to their anglers about the scoping opportunity. However, it's unclear as to why the New Jersey response was significantly higher than other states.

When looking at response by stakeholder type, private boat anglers and shore anglers comprised nearly $84 \%$ of all respondents ( $53.6 \%$ and $30.4 \%$, respectively) (Figure 2). This was followed by charter boat captain/owner ( $6.8 \%$ ), the general public ( $3.2 \%$ ), and then head boat captain/owner and scientist (both at $1.6 \%$ ). This response by stakeholder category within the recreational sector contrasts with the typical feedback received for other Council public comment opportunities. Generally, the for-hire sector tends to provide most of the public input and shore-mode anglers tend to make up a small portion of the input. However, this response is more in line with the recent (2015-2019) breakdown of recreational summer flounder harvest where private boat and shore anglers comprise $94 \%$ of the harvest and the for-hire fleet comprises $6 \%$. Lastly, given the focus on recreational discards, it's not surprising that respondents from the commercial sector made up a very small portion of the response.


Figure 1. Breakdown of respondents by state that completed the summer flounder scoping questionnaire and answered questions regarding demographic information.


Figure 2. Breakdown of respondents by stakeholder type that completed the summer flounder scoping questionnaire and answered questions regarding demographic information.

## Discard Concerns:

The first part of the scoping form was to obtain feedback on the Council's identified "problem definition" to be addressed through the MSE - management approaches to account for the effects of discarding on the recreational summerflounder fishery. Respondents were asked a series of questions regarding their perceived discard concerns to understand what the current issues are and what concerns are driving a desire to improve management of recreational discards in the summer flounder fishery.

Question \#1 asked respondents to rank their concern from "not concerned" to "major concern" for 16 specific discard related impacts in the recreational summer flounder fishery. The proportion of respondents that ranked a specific discard impact as a "major concern" was evaluated across all respondents and across regions (state specific responses were pooled into three regions, MA-CT, NY-DE, and MD-NC) to identify those impacts respondents' thought were of greatest concern.

In general, the proportion of respondents that indicated a discard impact was identified as a "major concern" was very similar across all respondents and regional respondents (Figure 3). When looking across regions, the NY-DE and MD-NC were quite similar and tended to consider a greater proportion of impacts as "major concern"; while the MA-CT region respondents tended to consider more impacts as a lower concern (Figure 4). However, when looking at the top five ranked impacts identified as a "major concern", all respondents and all regions had very similar concerns (Table 1). For example, concerns about the high discard rates/discard mortality of females was a top five concern for all respondents and all regions. In addition, the lack of fairness/equitable access among states and the lack of robust/trusted discard data were "major concerns" for three of the four groups. Lack of angler knowledge of gear configurations (e.g., hook sizes) that reduce mortality and reduced patronage of for-hire vessels due to high regulatory discard rates were most frequently ranked as impacts with "minor concern" across all groups.


Figure 3. The proportion that all scoping respondents and regional respondents (i.e., state-specific information provided) indicated whether a specific discard impact was ranked as a "major concern". See Appendix B, Question \#1 for discard concern options.


Figure 4. The proportion respondents by region that indicated whether a specific discard concern was ranked as a "major concern". See Appendix B, Question \#1 for discard concern options.

Table 1. Top five discard concerns identified by region and for all respondents. Same concern is noted with the same color across groupings.

| Rank | All Respondents | MA-CT | NY-DE | MD-NC |
| :---: | :--- | :--- | :--- | :--- |
| 1 | High discard rates and <br> mortality of females | High discard rates and <br> mortality offemales | High discard rates and <br> mortality of females | Ability to retain fish |
| 2 | Ability to retain fish | Lack of robust and <br> trusted data | Lack of robust and <br> trusted data | Angler satisfaction |
| 3 | Lack of <br> fairness/inequitable <br> access among states | Lack of <br> fairness/inequitable <br> access among states | Lack of <br> fairness/inequitable <br> access among states | High discard rates and <br> mortality of females |
| 4 | Future management <br> implications to <br> address discards | Proper handling <br> techniques | Managementresponse to <br> stakeholder input | Management response <br> to stakeholder input |
| 5 | Lack of robust and <br> trusted data | Three tied for 5th | Future management <br> implications to address <br> discards | Two tied for 5th |

Please see Appendix A for additional information regarding the analysis, results, and potential application of stakeholder feedback received on the open-ended questions focusing on "other discard concerns".

## Management Objectives

With the management problem defined and stakeholder concerns associated with the problem identified, the next section of scoping feedback focused on management objectives. Here respondents were asked a few questions to elicit input and perspectives as to what a successful recreational fishery would look like that minimized discards and discard mortality.

Similar to the discard concerns section, there were a combination of closed and open-ended questions provided for feedback. However, for the closed-ended question, instead of using a linear ranking scale (e.g., not concerned to highly concerned) for feedback, respondents were asked to select their top five management objectives. Management objectives were then evaluated and prioritized based on the proportion a particular objective was selected compared to all objectives or by the frequency an objective was selected by respondents (note: both methods produced nearly identical results, see Figure 7 as an example). Again, results were evaluated across all respondents and across all regions to find similarities and differences between the different groupings.

While there are some slight differences for a few specific management objectives, the results were consistent with the discard concern findings. Overall, the proportion of all respondents selecting a particular objective was very similar to those respondents at a regional level (Figure 5). When looking across the three regions, the responses are more varied, but the NY-DE and MD-NC were again more similar than the MA-CT region (Figure 6). However, when considering just the top five management objectives selected by the different groups, many similarities arise across all groups (Table 2). For example, two management objectives were ranked in the top five for all four groups: minimize the mortality of released summer flounder and improve the quality of the recreational fishing experience. Two more management objectives were in the top five for three of the four groups: minimize the risk of
overfishing and the stock becoming overfished and maximize the chances a trip produces a legal sized fish. Similarly, there was also general agreement across allgroups on the lowest priority management objectives. Minimizing the differences in retention rates by fishing method (e.g., shore, private vessel, for-hire) and minimizing the regulatory burden on recreational businesses (e.g., for-hire, bait and tackle, boat rentals) ranked as the two lowest management objectives.


Figure 5. The proportion that all scoping respondents and regional respondents that selected a specific management objective option as one of the most critical to achieve. See Appendix B, Question \#4 for management objectives options.


Figure 6. The proportion of respondents by region that selected a specific management objective alternative as one of the most critical to achieve. See Appendix B. Question \#4 for management objective options.


Figure 7. Comparison between the proportion of an objective relative to all objectives and the proportion a management objective was selected by a respondent for the MA-CT region (Question \#4).

Table 2. Top five management objectives identified by region and for all respondents. Same concern is noted with the same color across the groupings.

| Rank | All Respondents | MA-CT | NY-DE | MD-NC |
| :---: | :--- | :--- | :--- | :--- |
| 1 | Maximize chances a trip <br> produces a legal sized <br> fish | Minimize risk of <br> overfishing and stock <br> becoming overfished | Maximize chances a trip <br> produces a legal sized <br> fish | Improve quality of <br> recreationalfishing <br> experience |
| 2 | Improve quality of <br> recreational fishing <br> experience | Minimize the mortality <br> of released summer <br> flounder | Minimize the mortality <br> of released summer <br> flounder | Minimize negative <br> biological impacts to <br> the summer flounder <br> stock |
| 3 | Minimize the mortality <br> ofreleased summer <br> flounder | Minimize negative <br> biological impacts to <br> the summer flounder <br> stock | Minimize the <br> differences in <br> regulations between <br> neighboring states | Maximize recreational <br> fishing participation in <br> all sectors |
| 4 | Minimize the <br> differences in <br> regulations between <br> neighboring states | Maximize chances a <br> trip produces alegal <br> sized fish | Improve quality of <br> recreational fishing <br> experience | Minimize risk of <br> overfishing and stock <br> becoming overfished |
| 5 | Minimize risk of <br> overfishing and stock <br> becoming overfished | Improve quality of <br> recreational fishing <br> experience | Reduce the harvest of <br> female summer <br> flounder | Minimize the mortality <br> of released summer <br> flounder |

## Strategies

Once priority objectives were identified, respondents were then asked about strategies that could be implemented to successfully achieve those objectives. Strategies identified here would consist of potential management actions or alternatives (e.g., slot limits, gear requirements, reporting
requirements etc.) that should be evaluated in the MSE to determine if management objectives were achieved. The question structure and subsequent analysis was the same as that used for the management objectives section.

Similar to the discard concern and management objective findings, the proportion an individual strategy was selected as a priority compared to all strategies was very similar between all respondents and those respondents at a regional level (Figure 8). When looking across the three regions, there were greater differences in some of the selected priority strategies and the differences in priority strategies between the MA-CT region and the NY-DE and MD-NC regions were more pronounced (Figure 9). In fact, only two of the top five priority strategies for the MA-CT region were also a priority in the other three groups (Table 3). However, the remaining two strategies did rank in the top five for all groups: best practice recommendations to minimize recreational discard mortality and research to validate or update the current $10 \%$ recreational discard mortality rate. Establishing slot limits was a priority strategy for three of the four groupings. The lowest priority strategies were consistent across all of the groupings with increasing possession limits, expanding shore-based opportunities, and setting differential regulations by sector at the bottom.


Figure 8. The proportion a management strategy was selected to be evaluated compared to all possible strategies by all scoping respondents and by regional respondents. See Appendix B, Question \#6 for all strategy options.


Figure 9. The proportion a management strategy was selected to be evaluated compared to all possible strategies by region. See Appendix B, Question \#6 for all strategy options.

Table 3. Top five strategies identified by region and for all respondents (Question \#6). Same concern is noted with the same color across the groupings.

| Rank | All Respondents | MA-CT | NY-DE | MD-NC |
| :---: | :--- | :--- | :--- | :--- |
| 1 | Best practice <br> recommendations to <br> minimize recreational <br> discard mortality | Best practice <br> recommendations to <br> minimize recreational <br> discard mortality | Implement lower size <br> limits | Expand the <br> recreational season |
| 2 | Establish slot size limits | Create an outreach <br> program to improve angler <br> education on proper <br> discarding techniques | Establish slot size limits | Establish slot size <br> limits |
| 3 | Expand the recreational <br> season | Researchto validate or <br> update the current 10\% <br> recreationaldiscard <br> mortality rate | Research to validate or <br> update the current 10\% <br> recreationaldiscard <br> mortality rate | Research to validate <br> or update the current <br> 10\% recreational <br> discard mortality rate |
| 4 | Research to validate or <br> update the current 10\% <br> recreationaldiscard <br> mortality rate | Expand use of electronic <br> reporting and volunteer <br> angler surveys to report <br> discards | Best practice <br> recommendations to <br> minimize recreational <br> discard mortality | Best practice <br> recommendations to <br> minimize recreational <br> discard mortality |
| 5 | Implement lower size <br> limits | Adjust regulations <br> dynamically through time <br> based on the status of the <br> fishery | Expand the recreational <br> season | Two tied for 5th |

## Appendix A



# Analysis and Outcomes of Open-Ended Scoping Questions 

## Stakeholder Feedback on Other Discard Concerns

In addition to discrete, closed-ended questions (e.g., Question\#1) in which a respondent would select an appropriate answer(s), there were also open-ended questions included to allow for respondents to provide any additional feedback or comments that may not have been previously considered. Question \#2 asked respondents to provide additional concerns that were not mentioned previously. The response to Question \#2 (consistent with the other open-ended questions) was quite high for a survey like this with 376 individuals, or $46 \%$ of all respondents, providing additional feedback and comments regarding discard concerns.

While these types of questions can provide extremely valuable information regarding stakeholder insights, they are much more difficult to quantify and evaluate. A variety of different tools and techniques, such as word clouds, were used to analyze the feedback to search for commonly used words and phrases (Figure 5a and b) . After applying these techniques, it was possible to find broad common response categories in which individual responses could be binned. Six different broad discard concern categories were identified: Commercial Fishery, Enforcement and Education, Regulations, Gear and Tackle, Management, and Science and Data. Then within each category, it was possible to identify themes in which multiple responses would provide very similar recommendations (e.g., different configurations of slot limit sizes). This process efficiently and effectively condensed 376 individual responses down to 50 distinct themes that captures all of the feedback received on other discard concerns (Tables 1-6).

While all input and every recommendation will be reviewed, not all of them can be considered. This may be due to a variety of factors such as: a lack of data, the inability to model an idea, outside the scope of the MSE (i.e., recreational discards), enforceability concerns, or higher management priorities etc. Therefore, the MSE technical work group reviewed all distinct discard concern themes to determine if a theme could be modeled, could be evaluated with a proxy metric, or would be considered in this MSE. This will help refine and prioritize potential management objectives and strategies to be evaluated in this MSE and documentation that provides the rationale as to why a particular recommendation was/was not considered will be developed.

Figure $1 \mathbf{a}$ and $\mathbf{b}$. Word cloud diagrams capturing the key words and phrases from 376 individual stakeholder responses to the open-ended question regarding recreational summer flounder discard concerns (Question 2). a) an evaluation of slightly condensed individual responses and b) an evaluation of highly condensed individual responses.
a)

b)


Table 1. Summary of response categories to Question \#2 - Other Discard Concerns - grouped under the "Commercial Industry" broad category. Each individual response was reviewed and grouped into a broad theme and, within each theme, responses were then grouped into categories with other similar responses. Each response category was reviewed for possible consideration to determine if it could be evaluated in a simulation model(s) or would be considered in this MSE. A proxy determination means a specific recommendation could not be modeled or included in the MSE, but an alternative metric could be used instead.

| Broad Concern Category: Commercial Fishery |  |  |
| :--- | :---: | :---: |
| Commorn from 22\% of all regional respondents |  |  |
|  | Possible to model <br> (Y/N/M/Proxy) | Within scope of <br> MSE <br> (Y/N/M/Proxy) |
| Impacts, access, and equity of smaller (14 inch) <br> commercial minimum size limit | Y | N |
| Ban use/get rid of commercial gill nets, bottom trawls, <br> smallmesh | Y | N |
| Commercial discards are greater concern/impact <br> compared to recreational discards | M | N |
| Negative impacts of commercial fishing gear on habitat <br> and juvenile fish/summer flounder | Y | N |
| Reduce the commercial quota | Proxy | N |
| Modify the commercial fishing season | Y | N |
| Bycatch by commercial fishing vessels | Y | N |
| Commercial reporting is not accurate |  | M |

Table 2. Summary and individual responses to Question \#2 - Other Discard Concerns -grouped under the "Education and Enforcement" broad category theme. See caption for Table 2 for additional table information.

| Broad Concern Category: Education and Enforcement |  |  |
| :--- | :--- | :--- |
| Common General Themes | Possible to model <br> (Y/N/M/Proxy) | Within scope of <br> MSE <br> (Y/N/M/Proxy) |
|  | Proxy | Proxy |
| Inform public about impacts of discards, small/released fish <br> are legal fish in the future | Proxy |  |
| Angler education programs: proper handling, safe release, <br> proper release of gut hooked fish, guidelines to maximize fish <br> survival | Proxy | Proxy |
| Provide educational information on proper handling and <br> releasing at bait and tackle shops and boat rental facilities; <br> require training prior to renting a boat | Proxy | M/Proxy |
| Need additional enforcement across all sectors to ensure <br> regulations have meaning | Proxy | M/Proxy |
| Regulations frustrate anglers and create cheaters and poor <br> handling of fish | Proxy | M/Proxy |
| Coast Guard should do more enforcement, particularly <br> inspecting private vessels | Proxy | M/Proxy |
| Confusion and education regarding NC flounder (summer and <br> southern) regulations | Proxy |  |

Table 3. Summary and individual responses to Question \#2 - Other Discard Concerns -grouped under the "Regulations" broad category theme. See caption for Table 2 for additional table information.

| Broad Concern Category: Regulations |  |  |
| :--- | :--- | :--- |
| Commern from 39\% of all regional respondents |  | Possible to model <br> (Y/N/M/Proxy) |
| Within scope of <br> MSE <br> (Y/N/M/Proxy) |  |  |
| Too many and unfair regulations; public losing interest | Proxy | M/Proxy |
| Slot limits will not work for the charter/party fleet | Y | M |
| Consider the open seasons for other fisheries (e.g., blacksea <br> bass) | Y | Proxy |
| Allowance/use a tag program to retain a gut hooked/mortally <br> wounded fish | M | M |
| Lower the size limit (e.g., 14", 15",16", or 17"); allowance for <br> one large (e.g., >22") fish | Y | Y |
| Implement slot limits; maximum size limit | Y | Y |
| Extend the recreational season; keep season open later in year <br> when larger fish are available | Y | M |


| Bag limit needs to be increased | Y | Y |
| :--- | :--- | :--- |
| Bag limit should be reduced | Y | Y |
| Protect females | Y | M/N |
| Incentivize states with additional quota if they implement <br> measures to reduce discard mortality | Y | M |
| Release all large, female fish | Y | M |
| Keep first three fish caught | Y | M |
| Different measures for shore and back bay anglers | Y | M |
| Fishing every other year | Y | M |

Table 4. Summary and individual responses to Question \#2 - Other Discard Concerns - grouped under the "Gear and Tackle" broad category theme. See caption for Table 2 for additional table information.

| Broad Concern Category: Gear and Tackle |  |  |
| :---: | :---: | :---: |
| Concern from 7\% of all regional respondents |  |  |
| Common general themes | Possible to model (Y/N/M/Proxy) | Within scope of MSE <br> (Y/N/M/Proxy) |
| Regulate hook types: minimum hook size, barbless hook, circle hook | M/Proxy | M/Proxy |
| Ban English bend/Kahle style hook | M/Proxy | M/Proxy |
| Require the use of non-offset circle hooks for all live or cut bait fishing to reduce gut hooked flounder | M/Proxy | M/Proxy |
| Implement measure such as: one line per person, barbless hooks, no plastic baits, no treble hooks unless fishing from shore | M/Proxy | M/Proxy |

Table 5. Summary and individual responses to Question \#2 - Other Discard Concerns -grouped under the "Management" broad category theme. See caption for Table 2 for additional table information.

| Broad Concern Category: Management |  |  |
| :---: | :---: | :---: |
| Concern from 4\% of all regional respondents |  |  |
| Common General Themes | Possible to model (Y/N/M/Proxy) | Within scope of MSE <br> (Y/N/M/Proxy) |
| Address regional differences: between states, within states (e.g., northern/southern New Jersey) | Y/M | Y |
| Responsive and streamlined management process; listen to advisors | Y/M | M/N |
| Manage for future generations; maintain high abundance and size structure | Y | Y |
| Too many regulations | Y | Y |
| Create opportunities for fishermen to keep a fish | Y | Y |

Table 6. Summary and individual responses to Question \#2 - Other Discard Concerns -grouped under the "Science and Data" broad category theme. See caption for Table 2 for additional table information.

| Broad Concern Category: Science and Data |  |  |
| :---: | :---: | :---: |
| Concern from $13 \%$ of all regional respondents |  |  |
| Common General Themes | Possible to model (Y/N/M/Proxy) | Within scope of MSE <br> (Y/N/M/Proxy) |
| Bad or inadequate data on recreational harvest and discards; improper use of data | Y | Y |
| Effects of discards on "natural mortality" in the stock assessment | M | N |
| Protect females; stock implications of harvesting too many females | Y | Proxy |
| $10 \%$ recreational discard mortality rate is incorrect (too high, too low) | Y | Y |
| Overestimating recreational harvest and catch per angler or trip | Y | Y |
| Require electronic reporting for all recreational anglers/trips | Proxy | Proxy |
| Use of Volunteer Angler Surveys to collect discard information; need to minimize handling to collect information | Proxy | Proxy |
| Use of the ALS dataset | M | M/N |
| Species interactions (e.g., change in summer flounder abundance once black sea bass became abundant in LIS or sea robins in back bays) | M | M |
| Loss of summer flounder habitat; impacts of beach replenishment projects | M | N |



## MEMORANDUM

Date: March 26, 2021
To: $\quad$ Council and Board
From: Kiley Dancy, Karson Coutre, and Julia Beaty, Staff
Subject: Summer Flounder, Scup, and Black Sea Bass Commercial/Recreational Allocation Amendment: Final Action

On Tuesday, April 6, the Council and Board will review public comments and input from advisors and the Fishery Management Action Team before considering final action on the Summer Flounder, Scup, and Black Sea Bass Commercial/Recreational Allocation Amendment.

## Briefing Materials

The briefing materials for this meeting include:

1) Memo with Council staff recommendations for final action
2) Amendment public comment summary of comments received through March 16
3) Additional written comments submitted between March 17 and March 24
4) Amendment public hearing document

The following materials will be posted to the meeting webpage as supplemental:

1) Advisory Panel meeting summary from March 23, 2021 plus additional written AP comments received in connection with this meeting
2) FMAT meeting summary from March 24,2021
3) Additional comments received after March 24, if any
4) Commission draft amendment document

# MEMORANDUM 

Date: $\quad$ March 29, 2021
To: $\quad$ Chris Moore, Executive Director
From: Kiley Dancy, Karson Coutre, and Julia Beaty, Staff
Subject: Summer Flounder, Scup, and Black Sea Bass Commercial/Recreational Allocation Amendment: Council Staff Recommendations for Final Action

On Tuesday, April 6, the Council and Board will review public comments and input from advisors and the Fishery Management Action Team (FMAT) before considering final action on the Summer Flounder, Scup, and Black Sea Bass Commercial/Recreational Allocation Amendment. This memo outlines three realistic paths forward from a Council staff perspective and potential implications of and considerations for each path. The three paths are: a) postpone final action to a time certain, b) take final action in April selecting the status quo allocation alternatives, or c) take final action in April selecting alternatives to change the allocations. Staff are not recommending a specific path; however, there are recommendations associated with each path if the Council and Board were to choose that path.

GARFO staff have indicated that due to their workload concerns and priorities, any allocation changes would not be implemented until January 2023. As such, allocations will remain status quo in 2022 under all scenarios. The impacts of status quo allocations are uncertain given that 2022 catch limits will be unknown until assessments are available later this summer. We are also unsure as to how the 2020 and 2021 recreational harvest estimates will be used to develop 2022 recreational measures. For the past two years, the Council and Board have recommended status quo recreational bag, size, and season limits despite expected Recreational Harvest Limit (RHL) overages to allow more time to complete this allocation amendment, to make progress on the Recreational Reform Initiative (see Appendix), and to more fully transition the management program to the use of the revised Marine Recreational Information Program (MRIP) data. Normally this would not have been possible under the constraints of the Fishery Management Plan (FMP); however, it was viewed as a temporary solution. It's not clear if a similar approach can be used for 2022 recreational management measures.

## a) Postpone final action to a time certain

- As described in the public hearing summary and Advisory Panel (AP) meeting summary, many stakeholders and GARFO representatives have recommended further developing the Recreational Reform Initiative (see Appendix) before making an allocation decision. They suggest that fundamental changes to recreational fisheries management should be
considered before considering if and how the commercial/recreational allocations should be changed. This path has been discussed at previous Council and Board meetings, public hearings, the AP meeting and the FMAT meeting.
- If the Council and Board decide to postpone taking final action on this amendment, staff recommend postponing until a date certain, and propose postponing until December 2021. This would allow for further development of the Recreational Reform Initiative while still providing time for document development and rulemaking on the amendment before a target implementation of any allocation changes on January 1, 2023.
- Staff believe it is unwise to delay implementation of any desired allocation changes beyond January 2023 - a delay would result in additional years of status quo allocations. In this case, it would be preferable for the Council and Board to take final action at the April meeting by selecting the status quo alternatives (see section b), rather than postponing a decision indefinitely. Managers and stakeholders need clarity on if and how the Council and Board plan to revise the allocations. The allocations and the changes considered through the Recreational Reform Initiative can work together to define potential future management programs. Neither management action alone will completely resolve current management challenges. Staff believe that both the Recreational Reform Initiative and consideration of allocation adjustments through this action have the potential to address current management issues, and do not see a benefit to delaying implementation of this action beyond January 2023.
- Postponing a final decision on allocations indefinitely, rather than to a time certain, creates uncertainty for managers and stakeholders. Depending on when progress on the amendment were to be resumed, this would require updated analysis and potentially additional public comment period if available information were to change or there was a desire to change the alternatives. Staff strongly caution against postponing final action on this amendment indefinitely.


## b) Take final action in April selecting the status quo alternative for each species

- If the Council and Board select the status quo allocation alternatives, the allocations will remain unchanged until reviewed through a future amendment (or framework action/addendum, if framework/addendum provisions are adopted through this action).
- In 2019, the Council adopted an allocation review policy which indicates that review of allocations should take place at least every 10 years. ${ }^{1}$
- If future RHLs remain similar to recent levels under status quo allocations, this would likely require additional restrictions in the recreational scup and black sea bass fisheries to prevent RHL overages. For example, 2019 scup harvest ( 14.12 mil lb ) was $117 \%$ higher than the 2020 RHL ( 6.51 mil lb ) and the 2019 black sea bass harvest ( 8.61 mil lb ) is $48 \%$ higher than the 2020 RHL ( 5.81 mil lb ). These comparisons are provided as examples.

[^6]Actual future percentage reductions or liberalizations will vary depending on the outcome of the 2021 stock assessments, as well as future recreational harvest estimates.

## c) Take final action in April selecting alternatives to change the allocations

- As described above, GARFO has indicated that any allocation changes adopted at the April meeting would be effective January 1, 2023.
- If the Council and Board take final action in April selecting alternatives to change the allocations, they must choose preferred alternatives based on the information currently available. For example, there is currently no indication that the Recreational Reform Initiative will eliminate the need to constrain the recreational fishery to their catch and landings limits and therefore eliminate the need for near-term restrictions in the recreational scup and black sea bass fisheries under status quo allocations. The Recreational Reform Initiative focuses on management changes to more appropriately account for uncertainty and variability in the MRIP data and provide stability in the recreational bag, size, and season limits (see Appendix). It does not consider ways to avoid the Magnuson Act provisions that require accountability measures for annual catch limit (ACL) overages. Therefore, if the Council and Board were to select a preferred alternative to change the allocations in April, their selection should not be based on an assumption that the Recreational Reform Initiative will prevent the need to further constrain the recreational fisheries. At this point in time, a considerable amount of additional work needs to be done to determine exactly how the Recreational Reform Initiative could change recreational fisheries management for 2022 and beyond. As described in the Appendix, the Council and Board prioritized a list of topics for further development through the Recreational Reform Initiative. However, the details of the associated potential management changes have not been fully developed.
- If the Council and Board select alternatives that change the allocations in April, the sections below contain species-specific considerations for how to change the allocations, given currently available information.


## Summer Flounder

Staff agrees with the FMAT conclusion that catch-based allocations are generally preferable from a technical and process standpoint. ${ }^{2}$ Currently, the summer flounder allocation is landings-based. This has resulted in each sector receiving a varying percentage of the Acceptable Biological Catch (ABC) each year in the form of sector ACLs, depending on annual sector discard trends. Because the management process has moved toward catch accounting and greater consideration of discards since the original summer flounder allocations were set, changing the summer flounder allocation to catch-based would simplify the specifications process and decrease the influence of discards from one sector on the other sectors ACLs.

The current 1980-1989 base years for summer flounder were adopted by the Council and Commission based on landings data during a time period when the fisheries were largely

[^7]unconstrained prior to implementation of the joint FMP. Staff believe that updating these base years with our current best scientific available data would be a well-justified approach for revising summer flounder allocations should the Council and Board wish to reallocate. Other base year options would represent time periods during which each sector was theoretically constrained by their existing allocation, while in practice the summer flounder, the recreational fishery has had much more variable performance relative to their limits since 2004 compared to the commercial fishery. However, for summer flounder, catch-based allocations cannot be calculated using the existing 1980-1989 base years given that dead discard estimates are not available in the stock assessment until 1989. Observer data cannot be used to develop summer flounder discard estimates for years prior to 1989. In addition, MRIP data are only available starting in 1981, so the full 19801989 base years cannot be re-calculated for the recreational fishery in catch or harvest.

Based on these considerations, if the Council and Board decide to change the allocations in April, staff recommend selecting a new alternative using the percentages from landings-based alternative 1a-5 (55\% commercial, $45 \%$ recreational based on 1981-1989 revised data), but applied to catch instead of landings. This would allow for continued use of the existing base years with a transition to a catch-based allocation approach. In comparison to the other alternatives in the document, this would represent a relatively small shift in allocation from the commercial to recreational sector and represent an outcome between status quo (alternative 1a-4) and each of the existing catchbased alternatives (alternatives 1a-1 through 1a-3).

A catch-based allocation of $55 \%$ commercial/ $45 \%$ recreational would in fact be very similar to recent splits of the ABC into sector ACLs (Table 1). In this way, this allocation would represent an outcome close to status quo in many years, depending on sector discard trends and projection methods. Furthermore, landings limits for each sector would vary based on projected sector discards, providing an incentive to reduce discards in a given sector to increase their landings limits.

Table 1: Effective split of the ABC into implemented sector ACLs for summer flounder since 2012.

|  | $\mathbf{2 0 1 2}$ | $\mathbf{2 0 1 3}$ | $\mathbf{2 0 1 4}$ | $\mathbf{2 0 1 5}$ | $\mathbf{2 0 1 6}$ | $\mathbf{2 0 1 7}$ | $\mathbf{2 0 1 8}$ | $\mathbf{2 0 1 9}$ | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{A v g}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Comm ACL <br> \% of ABC | $55 \%$ | $54 \%$ | $59 \%$ | $59 \%$ | $58 \%$ | $58 \%$ | $58 \%$ | $54 \%$ | $54 \%$ | $54 \%$ | $56 \%$ |
| Rec ACL \% <br> of ABC | $45 \%$ | $46 \%$ | $41 \%$ | $42 \%$ | $42 \%$ | $42 \%$ | $42 \%$ | $46 \%$ | $46 \%$ | $46 \%$ | $44 \%$ |

## Scup

For the purposes of setting specifications and catch accounting, FMAT members generally preferred catch-based allocations. Unlike for summer flounder and black sea bass, the allocation percentages for scup are currently catch based, therefore staff do not recommend further consideration of the landings based reallocation alternatives ( $1 \mathrm{~b}-5,1 \mathrm{~b}-6$, and $1 \mathrm{~b}-7$ ).

Under all reallocation alternatives there are several tradeoffs to consider. Unlike black sea bass and summer flounder, the scup stock biomass estimate did not increase after the incorporation of the revised MRIP data. In addition, scup biomass is currently decreasing, though still well above
the target level. The base years used for the current scup allocation percentages are all years prior to Council and Commission management. The approach under alternative $1 \mathrm{~b}-2$ of revising the commercial/recreational allocations using the same base years with the updated data would allow for consideration of scup fisheries prior to influence by the commercial/recreational allocations and harvest constraints. It would also use what is currently the best scientific information for these fisheries in those base years.

Based on example quotas and RHLs calculated for the Public Hearing Document and recent landings information, the other catch-based reallocation alternatives ( $1 \mathrm{~b}-3$ and $1 \mathrm{~b}-4$ ) would likely allow for less restrictive measures for the recreational sector than alternative $1 \mathrm{~b}-2$; however, these alternatives would reallocate based on time periods when the recreational fishery was effectively less constrained to their limits than the commercial fishery. This was a prominent fairness issue identified throughout the public comment period. Based on this same comparison for the commercial sector, all the catch-based reallocation alternatives ( $1 \mathrm{~b}-2,1 \mathrm{~b}-3$ and $1 \mathrm{~b}-4$ ) would not require more restrictive commercial measures under similar ABCs . If scup biomass continues to decline, or the scup market expands and landings increase, revised allocations have the potential to limit the commercial sector compared with status quo allocations. Based on these considerations, if the Council and Board decide to change the allocations in April, alternative 1b2 (same base years with revised data) is the recommended alternative and would result in $65 \%$ allocation to the commercial sector and $35 \%$ allocation to the recreational sector.

## Black Sea Bass

As described in the Public Hearing Document, the black sea bass commercial quotas and RHLs both increased by $59 \%$ from 2019 to 2020 based on the 2019 operational assessment. This was largely the result of incorporating the revised time series of MRIP data into the assessment, but it was also partially the result of the above average 2015 year class. The quotas and RHLs also increased slightly from 2020 to 2021 due to a change in the Council's risk policy. The degree to which the recent catch and landings limits increased because of the new MRIP data, as opposed to the risk policy change and the above average 2015 year class, cannot be precisely quantified. It stands to reason that both sectors should benefit from biomass increases due to factors other than the revised MRIP data (i.e., incorporation of data on the above average 2015 year class and the risk policy change). However, as described in the Public Hearing Document, only alternatives 1c4 (status quo black sea bass allocations) and 1c-5 (same base years, new data) would allow the commercial fishery to increase their landings beyond historic levels if the ABC remains similar to recent years. These same alternatives would require notable restrictions in the recreational fisheries to constrain harvest to the RHL if the ABC remains similar to recent levels (Figure 1). All other reallocation alternatives would constrain the commercial fishery to at or below pre-2019 levels, would not allow recreational liberalizations, and could require some moderate recreational restrictions in some cases. Under all reallocation alternatives there are several tradeoffs to consider

Based on the same fairness considerations described above for scup, Council staff do not believe it would be appropriate to constrain the commercial fishery to below pre-2019 levels with the sole purpose of preventing the need for additional recreational restrictions. For these reasons, if the Council and Board wish to select a preferred reallocation alternative for black sea bass at the April meeting, Council staff recommend consideration of allocation percentages that are not associated
with a specific alternative in the Public Hearing Document, but are within the range of those alternatives.

For the same reasons described above for the other species, staff recommend transitioning to a catch-based allocation for black sea bass. Staff recommend consideration of a catch-based allocation of $42 \%$ commercial and $58 \%$ recreational, which would result in an example commercial quota of 4.12 million pounds and example RHL of 6.95 million pounds, based on the methodology described in Appendix C of the Public Hearing document, which used the 2020 ABC. The 2021 ABC is slightly higher than the 2020 ABC due to the risk policy change. The ABCs for 2022 and beyond are currently unknown and will depend on upcoming stock assessments. The example quota of 4.12 million pounds is identical to the historic high for the black sea bass quota in 2017. It would allow for a slight increase in commercial landings compared to the 2018-2019 quotas (both 3.52 million pounds); however, it would represent a notable reduction in quota compared to the 2020 quota ( 5.58 million pounds, which was not fully landed due to COVID-19 impacts) and the 2021 quota ( 6.09 million pounds). It should be emphasized that the example quotas under any allocation scheme are examples and actual future quotas may vary. A $58 \%$ recreational catch-based allocation would require recreational restrictions, considering recent recreational harvest (e.g., 8.61 million pounds in 2019 , the most recent complete year for which information is available) and the example RHL of 6.95 million pounds. At this time, Council staff are not aware of any option that would prevent constraining the recreational fishery to their ACL and RHL under the current management program.

In fact, there is no black sea bass allocation approach based on currently available data that would allow the commercial fishery to stay at or above recent landings levels without requiring recreational restrictions, and vice versa. Council staff suggest a $42 \%$ commercial, $58 \%$ recreational catch-based allocation in an attempt to balance the tradeoffs for both sectors. However, it must be acknowledged that if ABCs remain similar to recent levels, this would result in a need to further constrain the recreational fishery and it would reduce the commercial quota below the 2020 and 2021 quotas (though it would not represent a reduction in commercial landings compared to 20042019 as shown in Figure 1).

A 42\% commercial, $58 \%$ recreational catch-based allocation for black sea bass is within the range of alternatives presented in the Public Hearing Document based on the example quotas and RHLs. Although the specific percentages are not within the range defined by the other catch-based allocation alternatives, Council staff believe this proposed alternative qualifies as within the range of the alternatives based on the expected outcomes.


Figure 1: Recent (2004-2019) commercial and recreational black sea bass landings with comparison to example commercial quotas and RHLs developed using the 2020 ABC (see Appendix C of the Public Hearing Document for methodology).

## Phase-in Provisions

The benefits of a phase-in period will vary depending on the magnitude of the allocation change implemented and the species under consideration. If the Council and Board wish to use a phase-in period, Council staff recommend a two-year phase-in (alternative 1d-2) rather than a longer phasein. Depending on the magnitude of the change implemented, a two-year phase-in would most appropriately balance the need to efficiently transition to a revised allocation with the desire to mitigate some of the negative socioeconomic impacts of reallocation and allow stakeholders to adjust.

## Transfers

Due to the implementation complexities associated with the proposed transfer process outlined in the Public Hearing Document, Council staff advise against the use of transfers for any of these species. Therefore, staff recommend selection of alternative 2a (no action on transfers).

## Framework/Addendum

Council staff support the use of frameworks/addenda to make future allocation changes acknowledging that major allocation changes or controversial allocation changes should still be considered through an amendment. While staff currently recommend against implementing a transfer process for these species, staff recognize that fishery needs, data availability, and proposed transfer mechanisms could change in the future. In this case, a framework/addendum process would be a more efficient means of considering transfer provisions in the future should the Council and Board deem it appropriate. Therefore, Council staff recommend selection of alternative 3 b (allow future changes to allocations, transfers, and other measures included in this amendment) as a preferred alternative. Council staff also advise against constraining the use of
frameworks/addenda to changes within a pre-determined range because the decision to use a framework/addendum or an amendment should always be made on a case-by-case basis.

## APPENDIX: Recreational Reform Initiative

The goals of the Recreational Reform Initiative are to achieve a greater degree of:

- Stability in recreational bag, size, and season limits;
- Flexibility in the management process; and
- Accessibility aligned with availability and stock status.

It is not the intent of the Recreational Reform Initiative to change the current Magnuson Act or FMP requirements for ACLs and accountability measures, nor is the intent to change how catch and landings limits are calculated. The Recreational Reform Initiative will focus more on topics such as how to better account for uncertainty and variability in the MRIP data while also trying to achieve the three goals listed above.

The table below outlines the topics prioritized by the Council and Board through the Recreational Reform Initiative. More information is available in the staff memo at: https://www.mafmc.org/s/Tab01_Rec_reform_memo_Feb2021_v2.pdf.

Table 2: Example grouping of the prioritized Recreational Reform Initiative topics into three types of management actions. The grouping of the technical guidance document and framework/addendum topics may be revisited after further consideration of which topics may require or warrant a change to the FMPs.

| Technical Guidance <br> Document | Framework/Addendum | Amendment |
| :---: | :---: | :---: |
| - Develop a process for identifying and smoothing outlier MRIP estimates. <br> - Evaluate the pros and cons of using preliminary current year MRIP data. <br> - Develop guidelines for maintaining status quo measures. | - Envelope of uncertainty approach for determining if changes to recreational management measures are needed. <br> - Develop process for setting multi-year recreational management measures. <br> - Consider changes to the timing of recommending federal waters measures. <br> - Harvest Control Rule proposal put forward by 6 recreational organizations. | - Recreational sector separation. <br> - Recreational catch accounting. |

# Summer Flounder, Scup, and Black Sea Bass Commercial/Recreational Allocation Amendment 

## PUBLIC COMMENT SUMMARY

March 2021


Prepared by the Mid-Atlantic Fishery Management Council (MAFMC or Council) and the Atlantic States Marine Fisheries Commission (ASMFC or Commission)


MID-ATLANTIC


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## 1 Introduction and Comment Summary

### 1.1 Overview

This document summarizes public comments on the Summer Flounder, Scup, and Black Sea Bass Commercial/ Recreational Allocation Amendment. Through this action, the Mid-Atlantic Fishery Management Council (Council) and the Atlantic States Marine Fisheries Commission (Commission) are considering potential modifications to the allocation of catch or landings between the commercial and recreational fishing sectors for all three species, as well as the potential to transfer annual quota from one sector to the other. Additional information and amendment documents are available at: http://www.mafmc.org/actions/sfsbsb-allocation-amendment.

Five virtual public hearings were held between February 17 and March 2, 2021, targeted toward certain states or regional groupings of states (About half of the comments associated with the commercial fishery came from the form letter with 111 signatures; Table 1). Hearings were attended by approximately 233 unique individuals in total, excluding Council and Commission staff. Approximately 49 unique individuals provided comments across all hearings.

Written comments were accepted from January 15, 2021 through March 16, 2021. In total, 311 individuals or organizations either provided written comments (200) or signed a form letter (111) on this action. ${ }^{1}$ Some of these commenters overlapped with those providing comments at hearings.

In total, 334 unique individuals and organizations provided comments during hearings and/or in writing. Attempts were made so that individuals who provided multiple comments (e.g., in person and written, multiple in person, or multiple written comments) were only counted once towards the tallies included later in this document. In some instances, individuals provided in-person comments on behalf of an

[^8]organization and those organizations also submitted written comments. In those instances, the individual and the organization comments were counted as one comment.

Although organizations represent multiple individuals, comments from individuals and organizations are counted equally in the tables below. Comments from organizations are not tallied separately from individual comments.

All public hearing comments are summarized in Section 2 of this document and all written comments are included in Section 3.

Twenty-three percent of the 334 individuals and organizations who provided in-person and/or written comments were primarily affiliated with the recreational fishery, and $69 \%$ with the commercial fishery (Table 2). About half of the comments associated with the commercial fishery came from the form letter with 111 signatures.

Table 1: Amendment public hearing schedule.

| Date | Regional Grouping |
| :--- | :--- |
| Wednesday, February 17, 2021 | Massachusetts and Rhode Island |
| Thursday, February 18, 2021 | New Jersey |
| Wednesday, February 24, 2021 | Delaware and Maryland |
| Monday, March 1, 2021 | Virginia and North Carolina |
| Tuesday, March 2, 2021 | Connecticut and New York |

Table 2: Number of unique individuals and organizations who provided webinar and/or written comments (including 111 form letter/petition signatures which were associated with the commercial sector) by primary affiliation.

| Primary sector | Number of <br> individuals/organizations | Percent of <br> total |
| :--- | :--- | :---: |
| Commercial sector | 229 | $69 \%$ |
| Recreational sector | 77 | $23 \%$ |
| Unknown/not specified | 13 | $4 \%$ |
| Multiple | 11 | $3 \%$ |
| Other | 4 | $1 \%$ |
| Total | $\mathbf{3 3 4}$ | $\mathbf{1 0 0 \%}$ |

### 1.2 COMMENT SUMMARY

Public comments are summarized in the text and tables below, grouped first by comments pertaining directly or indirectly to the alternatives under consideration in the amendment (Tables 3-5), followed by comments on other issues (Table 6). Only those topics addressed by more than two individuals or organizations, or those directly related to specific alternatives are included in the summaries below. However, all comments are included in sections 2 and 3 of this document.

In total, $69 \%$ (230) commenters (individuals or organizations) supported status quo allocations for all three species and $15 \%$ (50) supported a change in the allocations for at least one of the three species. Of
those who supported a change, 45 supported a change for summer flounder, 40 supported a change for scup, and 43 supported a change for black sea bass (Table 3). In some cases, individuals or organizations commented on only one or two of the three species if they did not fish for all three.
The majority of commenters who supported status quo allocations for all three species were in the commercial sector. The rationale provided varied, but common themes included fairness concerns regarding differences between the commercial and recreational sectors in terms of constraints on fishing effort, differences in accountability for landings limit overages, or concerns about negative economic impacts that would result from a reduced commercial allocation (Table 3).
Those who supported a change in the allocations also provided various justifications for doing so. Common themes included a desire to update the allocations to use the revised MRIP data, which represents the best available science and is used in all other parts of the management process, or a desire to set allocations based on more recent historical averages than the current allocations. Comments in favor of specific alternatives for modified allocations are shown in Table 3. For all three species, the comments in favor of a specific change were spread among a few different alternatives, with no alternative gaining a clear majority of support among those who favored a change. In general, commenters who favored a change tended to favor catch-based alternatives over landings-based alternatives (Table 3). Those who provided a rationale for catch-based allocations typically said it is a more logical approach given that both sectors must be managed with catch limits. Some also said it would be more appropriate given differences in discarding between the two sectors.
As previously stated, $69 \%$ of the total commenters supported no change in the allocations; therefore, there would be no change to phase in and they did not comment on the phase-in alternatives. Twenty-one commenters expressed support for no phase-in, 10 commenters supported a 2-year phase-in, 1 commenter supported a 3 -year phase-in, and 1 commenter supported a 5 -year phase-in (Table 3). In some cases, a commenter supported more than one phase-in alternative (e.g., either a two or three year phase-in); therefore, the total number of comments for each phase-in alternative should not be added across alternatives as that would result in some double counting. The rationale provided for each alternative varied. A common justification for no phase-in was that past changes in commercial quotas and Recreational Harvest Limits (RHLs) were not phased in, or that an allocation change is needed to address an immediate or longstanding issue; therefore, changes in allocation changes should not be phased-in. Those who supported a phase-in tended to support shorter phase-ins, usually with the justification that an allocation change is needed to address a problem in the fisheries; therefore, the phase-in period should not be too long.
At total of 184 commenters said they did not support transfers between the sectors and 18 supported bidirectional transfers. Comments regarding transfer caps were spread among multiple transfer cap alternatives (Table 4). Commenters who provided a rationale for not allowing transfers tended to say that they did not think transfers were needed, they were concerned about potential impacts, or that a need for a transfer would indicate that the allocations are not set appropriate or there is a potential issue with the stock. Those who supported transfers said they could be a useful tool in the toolbox; however, several commenters said they would only support transfers in very specific circumstances or after additional analysis or a better understanding of the impacts.

A total of 178 commenters said they did not support making future allocation changes through a framework/addendum (Table 5), in most cases stating that allocation changes have major impacts and should be done through the more thorough amendment process which includes more opportunities for public input than frameworks/addenda. A total of 21 commenters said they would support the use of
frameworks/addenda to revise allocations (Table 5) as this could be a more efficient way to adjust the allocations.

Table 6 lists some common comment themes which are not directly related to allocations (e.g., comments about recreational bag/size/season limits, habitat issues, or general concerns about stock status).

Table 3: Summary totals for comments related to commercial/recreational allocation alternatives and phase-in provisions (alternative set 1). Totals should not be summed between rows as this would result in double counting of individuals/organizations who commented in multiple categories.

| Comment Topic/Theme | Number of unique individuals/ organizations | \% of total comments |
| :---: | :---: | :---: |
| General Positions on Allocation Changes |  |  |
| Status quo allocation for all 3 species | 230 | 69\% |
| Supported an allocation change for at least one species | 50 | 15\% |
| Supported summer flounder allocation change | 45 | 14\% |
| Supported scup allocation change | 40 | 12\% |
| Supported black sea bass allocation change | 43 | 13\% |
| Specific Allocation Alternatives: Summer Flounder |  |  |
| 1a-1: $44 \%$ com., $56 \%$ rec. (catch based) | 4 | 1\% |
| 1a-2: $43 \%$ com., $57 \%$ rec. (catch based) | 12 | 4\% |
| 1a-3: $40 \%$ com., $60 \%$ rec. (catch based) | 16 | 5\% |
| 1a-4: 60\% com., $40 \%$ rec. (status quo; landings based) | 230 | 69\% |
| 1a-5: $55 \%$ com., $45 \%$ rec. (landings based) | 0 | 0\% |
| 1a-6: $45 \%$ com., $55 \%$ rec. (landings based) | 8 | 2\% |
| 1a-7: $41 \%$ com., $59 \%$ rec. (landings based) | 5 | 1\% |
| Specific Allocation Alternatives: Scup |  |  |
| 1b-1: $78 \%$ com., $22 \%$ rec. (status quo; catch based) | 231 | 69\% |
| 1b-2: $65 \%$ com., $35 \%$ rec. (catch based) | 1 | 0\% |
| 1b-3: $61 \%$ com., $39 \%$ rec. (catch based) | 18 | 5\% |
| 1b-4: 59\% com., $41 \%$ rec. (catch based) | 8 | 2\% |
| 1b-5: $57 \%$ com., $43 \%$ rec. (landings based) | 9 | 3\% |
| 1b-6: 56\% com., $44 \%$ rec (landings based) | 0 | 0\% |
| 1b-7: 50\% com., $50 \%$ rec. (landings based) | 4 | 1\% |
| Specific Allocation Alternatives: Black Sea Bass |  |  |
| $1 \mathrm{c}-1: 32 \%$ com., $68 \%$ rec. (catch based) | 10 | 3\% |
| 1c-2: $28 \%$ com., $72 \%$ rec. (catch based) | 8 | 2\% |
| 1c-3: $24 \%$ com., $76 \%$ rec. (catch based) | 10 | 3\% |
| 1c-4: $49 \%$ com., $51 \%$ rec. (status quo; landings based) | 234 | 70\% |
| 1c-5: $45 \%$ com., $55 \%$ rec. (landings based) | 0 | 0\% |


| Comment Topic/Theme | Number of unique individuals/ organizations | \% of total comments |
| :---: | :---: | :---: |
| 1c-6: $29 \%$ com., $71 \%$ rec. (landings based) | 10 | 3\% |
| 1c-7: $22 \%$ com., $78 \%$ rec. (landings based) | 5 | 1\% |
| Phase-In Alternatives |  |  |
| 1d-1: No phase-in (status quo) | 21 | 6\% |
| 1d-2: Allocation \% shift evenly divided over 2 yrs | 10 | 3\% |
| 1d-3: Allocation \% shift evenly divided over 3 yrs | 1 | 0\% |
| 1d-4: Allocation \% shift evenly divided over 5 yrs | 1 | 0\% |
| Catch vs. Landings Based Approaches |  |  |
| Supported at least one catch-based alternative (and no landings-based alternatives) | 18 | 5\% |
| Supported at least one landings-based alternative (and no catch-based alternatives) | 3 | 1\% |
| Supported catch-based as a concept | 16 | 5\% |
| Supported landings-based as a concept | 2 | 1\% |
| Common Themes or Justifications Related to Allocation Comments |  |  |
| Commercial fishery is much more controlled/constrained than recreational (e.g., limited access, in-season closures) | 25 | 7\% |
| Commercial catch is much better quantified than recreational catch | 25 | 7\% |
| More recreational accountability is needed/recreational sector should pay back overages | 16 | 5\% |
| Commercial sector cannot afford to lose quota/livelihoods are at stake | 167 | 50\% |
| Negative impacts to general public/consumers if lower com allocation (e.g., need a steady supply of affordable fish) | 134 | 40\% |
| Comments in favor of pursuing Recreational Reform first or instead of allocation changes | 35 | 10\% |
| Comments in support of Recreational Reform, but not instead of or before this amendment | 11 | 3\% |
| Allocations should use new MRIP as it is best available science; allocations should reflect current fishery conditions and data | 15 | 4\% |
| Reallocation will turn commercial landings into recreational dead discards | 23 | 7\% |
| Concerns about validity of data (mostly referring to MRIP, but a few concerns about commercial data also expressed) | 15 | 4\% |
| The alternatives don't have a strong scientific basis or the basis is not well justified | 7 | 2\% |
| The impacts analysis is not sufficient or complete (e.g., only includes example quotas and RHLs) | 3 | 1\% |

Table 4: Summary totals for comments related to transfer provisions (alternative set 2). Totals should not be summed between rows as this would result in double counting of individuals/organizations who commented in multiple categories.

| Comment Topic/Theme | Number of unique <br> individuals/ <br> organizations | \% of total <br> comments |
| :--- | :--- | :--- |
| Transfer Provisions |  | 184 |
| 2a: no transfers (status quo) | 18 | $55 \%$ |
| 2b: Allow optional bi-directional transfers | 3 | $5 \%$ |
| 2c-1: No transfer cap; any amount of ABC | 5 | $1 \%$ |
| 2c-2: Max transfer of 5\% of the ABC | 6 | $2 \%$ |
| 2c-3: Max transfer of 10\% of the ABC | 1 | $2 \%$ |
| 2c-4: Max transfer of $15 \%$ of the ABC | $0 \%$ |  |

Table 5: Summary totals for comments related to framework/addendum provisions (alternative set 3). Totals should not be summed between rows as this would result in double counting of individuals/organizations who commented in multiple categories.

| Comment Topic/Theme | Number of <br> unique <br> individuals/ <br> organizations | $\%$ of total <br> comments |
| :--- | :--- | :--- |
| Framework/Addendum Provisions | 178 | $53 \%$ |
| 3a: No action (status quo) | 21 | $6 \%$ |
| 3b: Allow future changes to com/rec allocations, transfers, and <br> other measures included in this amendment to be made through <br> framework actions/addenda |  |  |

Table 6: Summary comment totals for other prominent comment themes. Totals should not be summed between rows as this would result in double counting of individuals/organizations who commented in multiple categories.

| Comment Topic/Theme | Number of <br> individuals// <br> organizations | \% of total <br> comments |
| :--- | :--- | :--- |
| Other Comments Not Directly Related to Amendment Alternatives |  |  |
| Comments on recreational bag/size/season limits (e.g., recreational <br> measures should be liberalized, summer flounder size limits should <br> be increased, commercial/recreational size limits should be more <br> equitable, seasons should be coordinated to have something to <br> target) | 36 | $11 \%$ |
| Discards are a problem and need to be addressed (along with or <br> instead of allocations; both recreational and commercial discards <br> mentioned) | 19 | $6 \%$ |
| General concerns about stock status and impacts of fisheries <br> generally | 11 | $3 \%$ |


| Comment Topic/Theme | Number of <br> individuals/ <br> organizations | $\%$ of total <br> comments |
| :--- | :--- | :--- |
| Commercial fishing is detrimental/should be reduced (e.g., <br> privatization of a public resource, concerns with effort during <br> spawning season, bycatch issues) | 13 | $4 \%$ |
| Commercial access should be expanded and/or measures <br> liberalized (e.g., increase commercial allocation, increase permit <br> availability for commercial sector, increase possession limits) | 8 | $2 \%$ |
| Better recreational enforcement is needed (too much non- <br> compliance or restrictive measures lead to non-compliance) | 8 | $2 \%$ |
| Catch limits should be higher for both sectors | 7 | $2 \%$ |
| Concerns about habitat issues (e.g., pollution, beach replenishment) | 6 | $2 \%$ |

## 2019 Recreational Black Sea Bass Discards in Weight

Estimates of recreational black sea bass dead discards in weight for 2019 were raised as a concern at all five public hearings and were also referenced in some written comments. As described below, incorrect information about 2019 recreational discards in weight was corrected midway through the hearing process, generating some confusion, as reflected in the hearing summaries below.
The National Marine Fisheries Service (NMFS) Greater Atlantic Regional Fisheries Office (GARFO) sent a letter to the Council on January 15, 2021 with 2019 landings and dead discard estimates for the commercial and recreational sectors for the purposes of determining if the 2019 commercial and recreational annual catch limits (ACLs) had been exceeded and an accountability measure (AM) should be triggered. This letter is available here: https://www.mafmc.org/s/1 GARFO-SFSBSB-final-2019catch.pdf.

The 2019 ACLs for black sea bass were based on a stock assessment that was completed before the revised time series of MRIP data was released. Therefore, the recreational landings and dead discards estimates for 2019 had to be back-calibrated to the "old" MRIP units to allow for comparison to the 2019 ACL. The January 15, 2021 letter from GARFO showed a $37 \%$ overage of the 2019 recreational ACL based on backcalibrated MRIP data due to higher than projected dead discards. After further reviewing these estimates, GARFO determined that the 2019 recreational discards in the January 15, 2021 letter were in fact in "new" MRIP units but mistakenly labeled as the "old" MRIP units. After correcting for this error, the discards in old MRIP units were much lower and it was determined that the 2019 recreational ACL had not been exceeded based on the back-calibrated estimates. GARFO sent a letter to Council and Commission leadership on February 24, 2021 (the day of the third public hearing for this amendment) explaining the mistake and the corrections. This second letter is available here: https://www.mafmc.org/s/2_GARFO-Revised-2019-BSB-Accounting.pdf.
Some stakeholders asked why the information presented during hearings and in the amendment public hearing document was not updated to account for this new information. It should be emphasized that only the back-calibrated 2019 recreational dead discard estimates in weight were corrected. These estimates in the "old" MRIP units are used only for the purposes of comparing catch against the 2019 ACL. All alternatives and analysis in the amendment use new MRIP data and, for the most part, rely on multiple years of data.

## 2 Public Hearing Summaries

A summary of each public hearing is provided below. Comments are summarized and paraphrased from hearing participants.

### 2.1 Massachusetts and Rhode IsLand <br> Wednesday, February 17, 2021, 6:00 p.m.

Attendees (78 excluding Council/Commission staff): Katie Almeida, Greg Ardini, Rick Bellavance, Joan Berko, Alan Bianchi, Michael Botelho, Bonnie Brady, Wayne Capizzi, Paul Caruso, Jesse Cheng, Chris Cokinos, Joseph Correia, Ed Coveney, Jack Creighton, Peter Cruz, James Cullen, Peter Cummins, Andy Dangelo, Bob Danielson, Jeff Deem, John DePersenaire, Greg DiDomenico, Edward Dietrich, Anthony DiLernia, Douglas Dockery, Michelle Duval, Dan Farnham, Christopher Fay, Frank Florio, Paul Haertel, Jared Hansen, Emerson Hasbrouck, Thomas Heimann, Dewey Hemilright, Rich Hittinger, Brett Hoffmeister, Robert Hojonoski, Kaitlyn Iannone, Lauren Josephs, Jeff Kaelin, Raymond Kane, Kevin Krupa, John Lake, Meghan Lapp, Harry Livingston, James Lukas, Eric Lundvall, Luciano Mascari, Conor McManus, Jason McNamee, Stephen Medeiros, George Mello, Stephen Mello, Nichola Meserve, Michael Monteforte, David Monti, Robert Morris, Richard Nealley, Stephen OMalley, Chris Parkins, Michael Pierdinock, George Place, Eric Reid, Paul Risi, Savonn San, Jack Skammels, Joel Southall, Greg Spier, RIT Stec, Paul Tokarz, David Tomasia, John Townes, Wes Townsend, James Troupes, Corinne Truesdale, Sam Truesdell, Michael Tucker, Paul Vafides, Nicholas Volino

## Summary

Among the commenters at this hearing, five supported status quo commercial/recreational allocations, with some saying the Recreational Reform Initiative should take priority over this action. In contrast, two spoke in support of reallocation via this amendment using the new MRIP data, though they did not recommend a specific reallocation alternative during the hearing. Multiple participants expressed concern with high discards in the recreational fisheries in general and some specific concern over recent black sea bass recreational discards.

Some attendees raised questions about the resulting commercial quotas and recreational harvest limits (RHLs) under the allocation alternatives. Some participants noted that the current example limits in the document are based on projections and assumptions and expressed concern that actual future catch limits are not included in the document. Staff noted that it is not possible to precisely predict future limits, which depend on future ABCs which are unknown beyond 2021. Limits also depend on sector specific discard projections, which are informed by recent trends and Monitoring Committee advice. Example commercial quotas and RHLs in the document using the 2020 ABCs and a regression approach to estimate discards are the best estimate of future limits at this time.

There were also questions related to the 2019 black sea bass recreational discard estimate in a letter from GARFO on January 15, 2021 and why those numbers were not incorporated into the public hearing document. Staff noted that the hearing document was approved in December, before the letter was received, and incorporating a single additional year of data would not meaningfully change the alternatives, example quotas and RHLs because these values were derived from multiple years of data and longer-term trends.

## Comments

Meghan Lapp (Seafreeze Ltd and Seafreeze Shoreside): The public hearing document is misleading because it uses scenarios to show the public what the results of each alternative are. In January, GARFO sent a letter showing the black sea bass recreational sector discarded over half of catch. ${ }^{2}$ I don't believe this document is ready for final action. Taking quota from the commercial sector and giving it to the recreational sector won't even cover the recreational discards. Any resulting reallocation will result in real hardship on the commercial industry. Because of the black sea bass 2019 numbers, the numbers in this hearing document should be re-examined before final action. The Council should also complete Recreational Reform before final action on this amendment, especially since the black sea bass OFL was exceeded. We can only support no action at this time.

Rich Hittinger (Rhode Island Saltwater Anglers Association): We are in favor of reallocation for all three species. As shown in the presentation, the recent increases in recreational catch are an artifact of changes made in the MRIP estimation process. We feel it's necessary to put the recreational/commercial allocation back to the previous balance before those changes. We support updating the base years used to the most recent years for determining allocation. We also believe that if the recreational allowable catch is not achieved due to recreational fisheries releasing fish unharmed, this excess catch should not be part of any transfer to the commercial sector but should be allowed to contribute to an abundance of fish in the wild.

Katie Almeida (Town Dock): We agree that the numbers and analysis need to be correct before the amendment moves forward. We also support prioritizing Recreational Reform before any reallocation discussions. At this time will have to support no action on this amendment and will follow up with written comments.

Rick Bellavance (Rhode Island Charter and Party Boat Association): In this amendment there will be winners and losers so everyone will try to protect what they have. We feel strongly that we need to go through this process because we have a new way of understanding recreational catch. The revised MRIP numbers were used in the assessments that create our TACs and quotas, and if we use it for that then we have to use it for allocation distribution so that they are appropriate and fair. I think it's important that we go through this as soon as possible. Recreational Reform would be helpful, but at the end of the day the allocations need to be decided first to know what reform is needed. I think it's wrong to table this and put it off because it will cause increased hardship on the recreational fishery. The commercial sector will lose some fish, but they gained some in the assessments due to the new MRIP numbers. I don't think it's right to put reallocation off any longer and Recreational Reform can be taken up after this amendment.

Greg DiDomenico (Lund's Fisheries): I agree with a lot of other comments said tonight but would like to reiterate a few of them. I feel strongly that this allocation amendment doesn't offer solutions, it only offers tradeoffs and penalizes the commercial fishery, and very likely penalizes recreational fishery as well. I would prefer that Recreational Reform be prioritized and it probably offers solutions that don't penalize the recreational sector. I have to remind everybody that the MRIP data situation has been going on for about 12 years and I feel very strongly that for last 12 years we should have been doing Recreational Reform that entire time and then we probably wouldn't be here. For tonight's purposes, I will have to back myself into a corner and protect our interests by supporting status quo. Until we have data that can be understood by all stakeholders, I am reluctant to offer any other comments. I also feel very strongly that this debate about catch vs. landings based management needs a really thorough review, with real numbers

[^9]and real discards, so everyone understands exactly what they're asking for. I would hate to have drastic reductions to the commercial sector and be penalized because of recreational discards and MRIP numbers that people don't believe are real.

Bonnie Brady (Long Island Commercial Fishermen's Association): The public hearing document is multi layered with a lot of options. The result is a confusing document that very few people understand fully. I think the only thing to do is status quo. The majority of the commercial fishermen are on the water every day and will have a great deal of difficulty with this document. This letter that recently arrived from GARFO means that the goalposts have changed and I think Recreational Reform is a better way for us to get these MRIP numbers right. There are still a lot of questions about MRIP and recreational discards being so high defeats the entire purpose. If the recreational sector can get handle on the recreational numbers, then maybe we will not be in a situation of taking from one sector to give to another.

Eric Lundvall (Commercial fisherman): I agree with previous comments that the document is confusing and misleading. I also support Recreational Reform before this amendment is considered.

Bobby Morris (Commercial fisherman): I'm there on the fishing grounds fishing and with my mesh size I catch very few undersized fish and am lucky to catch my quota. Recreational people fishing alongside me are catching everything and discarding many fish.

Jack Creighton (Recreational fisherman): I'm 75 years old and I haven't seen a lot of sea bass or fluke not survive the release when I am fishing. Most that we catch are lip caught, not gut caught. I am not against Recreational Reform and I think that each state should work hard to teach all of its fishermen the proper way to catch and release fish.

Greg Spier (Recreational fisherman, Rhode Island Saltwater Anglers Association member): I catch a fair amount of black sea bass off Rhode Island. We are pretty careful about throwing small catch back safely. It's important to have continuity between states regarding when seasons are open. I think recreational anglers would be willing to participate in a survey or voluntary reporting to give additional data and it is important to get a better handle on recreational catch. We are also consistent about not fishing during closed season. I think recreational people here would be more than willing to report what's actually happening with the fishery and more enforcement is needed for shore-based anglers.

### 2.2 NEW JERSEY

Thursday, February 18, 2021, 6:00 p.m.
Attendees (90 excluding Council/Commission staff): Greg Ardini, Dave Aripotch, Carmine Barbato, Chris Batsavage, Rick Bellvance, John Berglin, Joan Berko, Alan Bianchi, Howard Bogan, Nicole Bogan, William Bolton, Bonnie Brady, Jeffrey Brust, George Burns, Wayne Capizzi, Mike Celestino, Joe Cimino, Peter Clarke, Heather Corbett, Jessica Daher, John Davi, John DePersenaire, Vinny DelGozzo, Scott Denlinger, Tommy Denlinger, Greg DiDomenico, Tony DiLernia, Michelle Duval, Michael Egan, James Fletcher, Dan Farnham, Rich Fiocco, Tom Fote, Tara Froehlich, Timothy Froelich, John Fullmer, Bryan Goman, Stephen Granieri, Steven Grust, Sonny Gwin, Paul Haertel, Larry Hart, Amanda Hart, Dewey Hemilright, Steve Hernandez, Jeff Kaelin, Meghan Lapp, Malcom McClintock, Scot Mackey, Jim Maher, Rick Mariano, Reel MaxLife, Joe McKenna, Richard Melton, Nichola Meserve, Jon Morgan, Paul Mulholland, Brian Neilan, Adam Nowalsky, Jeff Orsoe, Mark Phillips, Michael Piotrowski, Chad Power, Chuck Reed, Eric Reid, Michael Reilly, Marc Sherry, Bill Shillingford, Thomas Siciliano, Philip Simon, Mark Taylor, Jon Toth, Arnold Ulrich, Dave Vanderbeck, Denise Wagner, Terry Wallace, Kevin Wark, Philip Welsh, Aaron Williams, Harvey Yenkinson, Roger Zahn, Joe Zagorski

## Summary

Among the commenters at this hearing, seven supported status quo commercial/recreational allocations, with some saying that the Recreational Reform Initiative should take priority over this action. In contrast, three spoke in support of reallocation via this amendment using the new MRIP data, though they did not recommend a specific reallocation alternative during the hearing. Two of these three individuals said they support Recreational Reform in addition to this amendment. One commenter in support of reallocation was specific in their support of catch-based allocations. Five participants expressed concern with high discarding levels in the recreational fisheries. Three commenters noted the need to improve recreational data and/or accountability. Another three commenters opposed transfer provisions between the commercial and recreational fisheries.

Some attendees raised questions about the resulting commercial quotas and RHLs under the allocation alternatives. Some participants noted that the current example limits in the document are based on projections and assumptions and expressed concern that actual future catch limits were not included in the document. Staff noted that it is not possible to precisely predict future limits, which depend on future ABCs which are unknown beyond 2021. Limits also depend on sector specific discard projections, which are informed by recent trends and Monitoring Committee advice. Example commercial quotas and RHLs in the document using the 2020 ABCs and a regression approach to estimate discards are the best estimate of future limits at this time.

There were also several questions related to recreational discards. One individual asked whether educational programs and measures to reduce discard mortality could change the way discards are estimated and accounted for. Staff responded that the discard mortality rate used in the stock assessments would need to change for this to impact future catch limits. Other questions included whether the causes of recreational discards are known and whether discard trends differ among recreational fishing modes. Some expressed general concern that given the current recreational discard mortality rate assumptions ( $10 \%$ for summer flounder and $15 \%$ for scup and black sea bass), our estimates of live releases must be extremely high to arrive at our current estimates of dead discards.

## Comments

Greg DiDomenico (Lund's Fisheries): Mr. DiDomenico reiterated his comments made at the Massachusetts/Rhode Island hearing that the commercial fishery would like to maintain their existing catch levels, and not at the expense of the recreational fishery, and that this amendment does not provide solutions. He reiterated support for prioritizing the Recreational Reform Initiative over this amendment. He also reiterated his prior comments that the example quotas and RHLs in amendment are not sufficient and real landings limits are needed. He provided the following additional comments at this hearing: If the amendment is not paused, Lund's supports status quo. Management has to come to grips with our failure to appropriately manage rebuilt stocks. If recreational landings are as high as the data indicate, then we are in a situation where we have to take this back to the SSC to have increased OFLs and quotas because there are a lot of black sea bass out there. We need to reduce discards for both sectors, and we owe it to the recreational community to convert their discards into landings and allow them to bring fish home and have higher satisfaction.

Denise Wagner (Commercial industry): I support status quo. For years we have been struggling with low trip limits and quotas. The recent increase in quota has finally allowed for better fishing and we cannot go back. Instead of giving quota to the recreational sector, we need to lower the minimum size for the recreational fishery so they can bring their fish in instead of creating discards. How can you justify taking quota away from a sector that has been suffering for so long? I hope we can find another way to help the recreational fishery. We need to address the recreational sector problems before giving commercial quota away. This whole process is unfair. As for transfers, we are talking about projecting and taking fish from the fishery next year. Every year the fishery changes - we might be at the point where we would be okay with a transfer one year, but the next year we might be at the point where we wish we would have kept it. The transfer provisions are going to be a problem.

Harvey Yenkinson (Recreational angler): When new the MRIP data were released, they were accepted and used in stock assessments, which increased stock size estimates. It seems logical that if NOAA is going to use these new data, we should go back retrospectively and adjust the allocations since they are now based on wrong data. It's only fair to change these allocations to something that is representative of the new MRIP data. According to my calculations, the commercial sector will still come out ahead with the increases in biomass from the recent assessments. Regarding catch vs. landings-based allocations, as we transition to ecosystem-based management approaches, it would be helpful to have a simpler process where all three of these species are managed the same way. I support using catch-based allocations for all three. In a catch-based system, each sector is more responsible for its own discards. There's a lot of room in both sectors for reducing discards and discard mortality. For allocations, alternatives 1a-3, 1b-3 and 1c3 are the fairest. For phase-in, the recent MRIP changes and assessment changes were not phased in, so these allocation changes should not be phased in over a long period. I would suggest phasing in over 2 years. For transfers, it sounds extremely complex using data from the year before and trying to figure out how much to transfer. I am against the proposed transfer processes. The uncertainty is too great - if one sector doesn't use its quota, it should contribute toward the species rebuilding or maintaining a high biomass.

John Toth (Jersey Coast Anglers Association): The recreational industry is dying a slow death. So many anglers tell me they're not fishing anymore due to regulations. We've built up the stock with sea bass to $240 \%$ rebuilt. During those periods where we have seasonal gaps, it'd be great if we could liberalize black sea bass measures so people have something to fish for during those times. With the pandemic, the bait
and tackle shops and the for-hire fleet are hurting. Liberalizations should be used as a tool to help rebuild the industry.

Dave Aripotch (F/V Caitlin and Mairead): I have been fishing all my life and always been told to stay with it and I would reap rewards down the line. We are not reaping any rewards except windmills taking up our grounds. I support status quo. I have a lot of party boat friends, we're all connected. But it's apples and oranges. For scup, we can't reach the quota because we are held to unrealistic standards. May 1 we are restricted. When we go over with commercial limits, we pay it back. There is no one looking at logbooks or filling out a bill of landing for recreational folks. The commercial side can be held accountable. Commercial buyers have to send data electronically within 48 hours and we submit eVTRs as soon as the fish are off the boat. There are a lot of sea bass, and I don't want to hurt the recreational guys. I would think that sea bass could be liberalized for everybody. I don't see how you are realistically going to enforce the recreational fleet. We need to get the numbers right and know what is being caught or discarded before we start taking fish away from the commercial sector. Greg DiDomenico made a good point that we are great at closing the fishery down, but we have a tough time managing the fish once it's rebuilt. Both the commercial and recreational fisheries could be happier with the existing quotas. I support staying with status quo on everything.

John DePersenaire (Recreational Fishing Alliance): Allocation is not a new issue. RFA filed a petition for rulemaking for fluke allocation years ago, proposing a $50 / 50$ allocation despite having historical surveys showing the recreational allocation should be even higher. Ultimately this was not approved by the Council and since then the recreational fishery has had more restrictive measures. The justification for reallocation has been in place for over 20 years, and it's been pushed for a long time. We've been fighting over NMFS data forever, but MRIP is always considered best available science. The 2018 recalibration, despite how difficult it is to believe in some cases, is still considered best available. Is it reasonable to think that we can change that when we've tried for years and not been successful? We definitely see potential with Recreational Reform, but it hasn't been fully fleshed out or developed. It's a promising concept, but basically an unknown at this point. RFA's standpoint is we believe reallocations should move forward and so should Recreational Reform. Dead discards are a big issue and source of frustration. These are food fisheries and dead discards have no value for either sector or the resource. Allocation decisions should consider ways to reduce dead discards. The status quo alternatives are not realistic. The 1980s/1990s numbers used as a baseline don't exist anymore and the new numbers are the best available science. We had hoped to see some pragmatic options included in the document, such as looking at historical commercial harvest and coming up with appropriate harvest, and then not having a cap on recreational side, in other words allowing recreational harvest to float.

Meghan Lapp (Seafreeze Ltd/Seafreeze Shoreside): Ms. Lapp reiterated her comments made at the Massachusetts/Rhode Island hearing that this amendment is not ready for prime time, and that the January 15 letter from GARFO shows concerning information about black sea bass dead discards that has implications for this action. She added that we won't know if this has caused overfishing until after final action on this amendment and reiterated support for status quo allocations.

Scot Mackey (Garden State Seafood Association): We realize the challenges this situation poses especially for the recreational sector, but on behalf of New Jersey commercial fishermen, we support status quo for all three species with no transfers. Everyone on the commercial side has made it clear we've been held to a hard cap on landings. To penalize us for data changes in the MRIP data seems unfair.

John Davi (Commercial fisherman): New York state commercial fishermen will be asking for status quo on all three species. We feel in New York that the recreational sector is basically a runaway train.

They can continue to grow every year while the commercial sector is at a standstill due to the regulations and limited access.

Mark Phillips (F/V Illusion): The Council has had more than 30 years to address recreational accountability and overfishing. From day one of the fluke plan, commercial fishermen have been accountable and punished for overfishing. Unlike the recreational sector, who have skated by with overfishing and causing deductions from the next year's total allowable catch, or by gimmicks to erase overages. This would never be allowed for commercial overages. This Council hasn't done its job and they don't want to do the job of controlling all overfishing. Accountability measures need to be in effect before reallocation. If not, all Council members should tell the public that they are never going to address recreational overfishing. I support status quo until this council addresses recreational accountability measures.

William Bolton (Recreational angler): The fact is we are targeting larger summer flounder in order to get keepers, and we are not discussing the evidence of harm to biomass as a whole from harvesting all females. More research is needed to look into that. This could be causing more harm than good to target them. More research is also needed into the fact that we used to fish largely with bait, and a lot of fish would be gut hooked, whereas these days everyone is fishing on reefs and rocks using bucktails and different methods. These methods might have reduced mortality due to fewer gut hooked fish.

Aaron Williams (F/V Tradition and Heritage): I'm a summer flounder permit holder in New Jersey, and I agree with other commercial fishermen that spoke in support of status quo.

Bonnie Brady (Long Island Commercial Fishing Association): Commercial fishermen have been held to standards where they do offer pound for pound paybacks. It's unbelievable that 40 million black sea bass were caught recreationally. I hope that we will pause reallocation because we don't have the numbers and we don't want anyone hurt economically.

John Fullmer (NJ Council of Diving Clubs): We have been diving on wrecks, and I've never seen as many black sea bass as I've seen this year. You should consider raising the biological catch for both the commercial and recreational sectors.

James Fletcher (United National Fishermen's Association): It's amazing that certain sections of the Magnuson Act say to encourage development of practical measures to avoid bycatch and discourage unnecessary waste. Why do the Monitoring Committee and SSC not calculate the effects of a recreational total length retention strategy? As an advisor I have recommended that the recreational sector be held to a total length limit regardless of size. Why hasn't the Council supported mandatory electronic reporting for recreational anglers?

Malcom McClintock (F/V Rhonda Denise): In my 15 years of commercial dragging, every time I go out there seems to be more fluke, scup, and black sea bass compared to when I started. We participate in tow-by-tow reporting, and everything is accounted for all the time. How could someone ask for a reallocation when the data are so sketchy? You can't ask for more when you can't show what's currently taken. I know recreational guys and I have nothing against them, but how do you go about changing the allocation when you can't even show what's currently going on? We take observers on our vessels, get boarded by the Coast Guard...how can you ask for more when you can't show what you're doing? I support status quo.

Paul Haertel (Jersey Coast Anglers Association): At this time we support moving forward with both Recreational Reform and this allocation amendment as soon as possible. The for-hire fleet has been losing boats at an alarming rate due to restrictive regulations.

Attendees (53 excluding Council/Commission staff): Greg Ardini, Joan Berko, Alan Bianchi, Bonnie Brady, Myra Brouwer, John Brzoska, Joe Cimino, John Clark, Hailey Conrad, John Davis, John DePersenaire, Greg DiDomeico, Anthony DiLernia, Michelle Duval, James Fletcher, Dan Farnham, Brent Fulcher, Kara G, Corey Gwin, Sonny Gwin, Dewey Hemilright, Jeff Kaelin, Emily Keiley, Ron Larsen, Scott Lenox, Michael Luisi, Sam Martin, Kevin McMenamin, Roy Miller, Robert Morris, Eric Reid, Buddy Seigel, David Stormer, William Trader, David Trader, Craig Weedon, Angel Willey, Erik Zlokovitz, Wes Townsend, Geoff White, George Andrews, Tyrone Carelock, Mike Coppa, Ben MacPherson, Daniel Malone, Nichola Meserve, Jerry Morgan, Derek Richards, Chris Wilson, Sam Wilson, Robert Wren, Steven Magdeburger, Robert Valenti

## Summary

Seven of the nine individuals who commented at the hearing supported maintaining status quo allocations for all three species. One individual said he was opposed to maintaining status quo allocations, and would follow up with more specifics in a written comment. Four people said they were concerned about recreational discards. Several commenters shared general skepticism of MRIP data and two people supported recreational electronic reporting to remedy this issue. Lastly, one individual commented that he was opposed to the phase-in approach, did not think transfers should be allowed in either direction, and thought that future allocation changes should only be made through an amendment.
Several attendees asked questions regarding a recent letter from GARFO which provided back-calibrated MRIP landings and discards estimates for black sea bass. ${ }^{3}$ Some attendees questioned why this action was taking place if according to this data the recreational sector did not harvest its entire 2019 RHL. Staff explained that the impetus for this action was the change in MRIP methodology and the disconnect that this creates with the current allocation percentages. The MRIP estimates have scaled up significantly and any comparison of back-calibrated MRIP estimates to old landings limits are irrelevant to fishery performance moving forward. Another attendee asked about the application of section 302-7 of the Magnuson Stevens Act (MSA) regarding the need for Council member recusal from this action given that some Council members hold permits for these species. Staff responded that there are guidelines in the Council's Statement of Organization Practices and Procedures (SOPPs) regarding recusal from a motion, specifically Council members may not vote on any Council decision that would have a significant and predictable effect on financial interests.

## Comments

Brent Fulcher (Commercial fisherman): The commercial fishery has commercial moratorium permits to enter the fishery while the recreational fishery is not limited in the same way. We need to come up with long-term solutions for managing the recreational fishery like implementing phone app reporting or tags to properly record recreational catch. I support 1a-4, 1b-1, 1c-4 (status quo) for all three species. Starting with VA/NC - states have provided flexibility where vessels can abide by one state's possession limits, but unload fish in another state. This helps to reduce commercial discards. The next thing is to work through gear selectivity to land fish that are viable, below the present legal size limit to reduce that amount of dead discards. This applies to the recreational fishery as well where they are fishing on almost all females. You can't effectively manage a resource that way.
Robert Morris (F/V Living Waters): These fisheries are not managed correctly, regulations are overly restrictive, and the estimates for discards are unbelievable. Recreational fishermen have to catch and
discard 25-30 fish before they land a keeper at 19 inches. It would be better to keep one smaller fish than discarding fish all day long. This amendment cannot be based off bad data. It costs money to do business to feed the public that own the fish. The health and safety of the people of this country is the most important and to take that away to allow people a recreational pursuit is ridiculous.
Greg DiDomenico (Lund's Fisheries): Mr. DiDomenico reiterated his comments from prior hearings including putting the amendment on hold, supporting status quo allocations, asserting that the amendment does not provide solutions just economic consequences, and voicing support for further development of the Recreational Reform Initiative.
Bonnie Brady (Long Island Commercial Fishing Association): Ms. Brady reiterated her comments from prior hearings voicing support for status quo and stating that the public has not had time to understand what has transpired in regards to 2019 black sea bass discards and landings estimates in the last couple weeks. She provided the following additional comments during this hearing: I live in a town with a lot of commercial and recreational fishermen. We don't want to see anyone suffer. I would hope there are better and more creative ways of dealing with this issue instead of taking from one sector to give to another. The commercial sector has suffered enough. We need to resolve this recreational discarding issue.

Sam Martin (Martin Fish Company): I support status quo for these fisheries until recreational management issues and discard issues are resolved.
James Fletcher (United National Fishermen's Association): Mr. Fletcher repeated comments made at a previous hearing in support of status quo allocations, a total retention strategy in the recreational fisheries based on total length, and mandatory recreational electronic reporting. He provided the following additional comments at this hearing: Why are we going through with this amendment when there is so little confidence in the MRIP data? Have we looked at all of the numbers of state by state licenses? Why does management allow for $50 \%$ of recreational dead catch to be comprised of discarded fish? Why do you believe that the MRIP data is any better than the MRFSS data when it is not based on electronic reporting?
John DePersenaire (Recreational Fishing Alliance): Mr. DePerenaire reiterated his comments from the New Jersey hearing that he does not support status quo because the data do not support the current allocations for these fisheries. He restated that RFA and other groups been fighting for this for the past 20+ years and that MRIP is the best available science and is being used elsewhere in the management process.

Jeff Kaelin (Lund's Fisheries): The commercial fisheries have rarely exceeded quotas by notable amounts due to close monitoring and reporting. This recreational effort issue is a long foreseen problem. Alternatives that modify the base allocation years are based on time periods when the recreational fishery was effectively less constrained to their limits than the commercial fishery was. Setting this process aside to proceed with the Recreational Reform Initiative seems to be the fairest approach. In the last few years, demersal fish have become more important to us as a company. Some of that was through a landings reform initiative that we worked out with NJDEP where we can retain fish on board destined for another state while New Jersey limits are offloaded. This year even with Covid-19, it has been one of the best years we've had. We are able to put product into wholesale frozen markets. We've been able to provide value-added products people can take home, but only because of our investments. The assessment allowed for a higher quota, don't take that away from us. We don't know how much of the scup quota we're going to lose going into next fishing year. This puts us in impossible situation. We can't plan for market

[^10]expansion and meeting contracts when we don't know what quota we will get. MSA National Standard 5 says measures where practicable should consider efficiency except that no measure shall have allocation as its sole purpose. This amendment conflicts with National Standard 5. We are supporting status quo for all species, $1 \mathrm{a}-4,1 \mathrm{~b}-1,1 \mathrm{c}-4$. No phase in necessary. No transfers in either direction. Any action with allocation should only be done by amendment.

### 2.4 Virginia and North Carolina

Monday, March 1, 2021, 6:00 p.m.
Attendees (38 excluding Council/Commission staff): Greg Ardini, Chris Batsavage, Jay Baysden, David Behringer, Alan Bianchi, Ellen Bolen, Bonnie Brady, Greg DiDomenico, Anthony DiLernia, Harry Doernte, Michelle Duval, James Fletcher, Brent Fulcher, Alexa Galvan, Patrick Geer, Lewis Gillingham, Bill Gorham, Sonny Gwin, Mark Hodges, Dewey Hemilright, Jeff Kaelin, Meghan Lapp, Ron Larsen, Shanna Madsen, Nichola Meserve, Mark Phillips, Eric Reid, Paul Risi, Robert Ruhle, Brandi Salmon, Mark Sanford, Jerry Schill, Art Smith, David Sneed, Mike Waine, Kate Wilke, Sara Winslow, Wes Townsend

## Summary

Among the commenters at this hearing, nine supported status quo commercial/recreational allocations. Six of these commenters provided similar comments at previous hearings. In contrast, one commenter spoke in support of reallocation via this amendment using the new MRIP data, though they did not recommend a specific reallocation alternative during the hearing. Multiple participants expressed concern with high discards in the recreational fisheries in general and some specific concern over recent black sea bass recreational discards.

A question was raised about what other guidance or best available science the Council and Board might use to make allocation decisions such as any reasoning outlined in the Council's allocation review policy. They specifically asked if using the new MRIP numbers in the assessments, but not for reallocation, would be ignoring best available science. Staff responded that the Council's allocation review policy is to assess allocations at least every ten years or as a management or biological needs arise. Best available science would still have been used in setting the OFL and ABCs based on the most recent stock assessments whereas the allocation decision is more of a policy choice. Another question was asked regarding how reducing dead discards with methods such as circle hooks, descending devices and other techniques can translate into lower dead discard estimates for the recreational sector. Staff responded that this would only result in reduced dead discard estimates in the future if it was scientifically quantified, peer reviewed, and incorporated into the stock assessment. Similar to previous hearings, attendees also asked whether the 2019 black sea bass harvest and discard numbers were final after a corrected letter from GARFO. Some attendees also asked for clarification on when new versus old MRIP estimates are used.

## Comments

Brent Fulcher (Chair, North Carolina Fisheries Association): Mr. Fulcher reiterated comments from the New Jersey hearing supporting status quo for all species and highlighting the need for the recreational sector to reduce discards.

Jerry Schill (North Carolina Fisheries Association): NCFA was asked to sit on the Summer Flounder Advisory Panel for its original amendment. NCFA is in favor of status quo for all three of these species. I am also curious why I did not hear politics listed as a reason why reallocation is being considered.

Bonnie Brady (Long Island Commercial Fishing Association): Ms. Brady reiterated support for status quo and concerns over 2019 recreational black sea bass discards from previous hearings.

Greg DiDomenico (Lund's Fisheries): Mr. DiDomenico reiterated his comments from prior hearings including putting this amendment on hold, supporting status quo, asserting that the amendment does not provide solutions just tradeoffs and economic consequences, stating that issues with the recreational data have been known for a long time, and voicing support for further development of the Recreational Reform Initiative, particularly to improve recreational discards.

Meghan Lapp (Seafreeze Ltd/Seafreeze Shoreside): Ms. Lapp reiterated her comments made at previous hearings that she supports status quo, thinks this amendment is not ready for final action and it would hurt the commercial sector, and has concerns over the 2019 black sea bass discards not being included in this amendment. She provided the following additional comments during this hearing: The changing 2019 numbers provided by GARFO has been confusing for the public and that managers don't know what is happening with MRIP. ${ }^{4}$

Robert Ruhle (F/V Darana R): I agree with Meghan Lapp's comments and think that no action is the only choice, reallocation would not accomplish anything.
James Fletcher (United National Fishermen's Association): Mr. Fletcher reiterated his comments made at previous hearings in support of status quo allocations and a total retention strategy in the recreational fisheries based on total length. He provided the following additional comments at this hearing: The Magnuson Stevens Act requires the creation of a recreational registry of anglers in the EEZ and NFMS has not complied with that law. This requirement should be addressed before reallocation.

Mike Waine (American Sportfishing Association): We do not support status quo. The Council and Board need to follow the action plan and follow through with reallocation through this amendment without delay in addition to recreational reform.

Jeff Kaelin (Lund's Fisheries): Mr. Kaelin reiterated comments made at the Delaware/Maryland hearing regarding the company's investments in diverse fisheries, the need for Recreational Reform, National Standard 5, and supporting no action/status quo. He provided the following additional comments at this hearing: We need to go back to the saltwater registry and have a conservation ethic. Taking away commercial quota through this amendment is wrong. In terms of the economic effect of this amendment, the results of the updated economic model for fluke show that the current regulations are not sub-optimal and due to limitations in data from the recreational sector, we don't know that sector's value.

Mark Phillips (F/V Illusion): Mr. Phillips reiterated points made at the NJ hearing regarding recreational accountability and supporting no action/status quo until those issues are addressed.

[^11]
### 2.5 Connecticut and New York

Tuesday, March 2, 2021, 6:00 p.m.
Attendees (70 excluding Council/Commission staff): Katie Almeida, Greg Ardini, Don Ball, Sean Barret, Paul Beckwith, Rick Bellavance, John Berglin, Joan Berko, Alan Bianchi, Howard Bogan, Ellen Bolen, David Bornemann, Brady Bonnie, Peter Consiglio, John Davi, Maureen Davidson, Justin Davis, John DePersenaire, Gerg DiDomenico, Tony DiLernia, Charles Etzel, Julie Evans, James Flthcer, Michael Fallon, Dan Farnham, Paul Farnham, Daniel Farnham Jr., Bill Foster, Timothy Froelich, Denise Froelich, Brent Fulcher, Jim Gilmore, Bryan Gosman, Sonny Gwin, Corey Harris, Emerson Hasbrouck, Dewey Hemilright, Stephen Johnston, Richard Jones, Jeff Kaelin, Cynthia Kaminsky, TJ Karbowski, Don King, Warren Kremin, Meghan Lapp, Carl LoBue, David Lofstad, Daniel Malone, John Maniscalco, Tara McClintock, Malcolm McClintock, Nichola Meserve, Jerry Morgan, Charles O’Connell, Mark Phillips, Stephen Pisano, Michael Plaia, John Rade, Brian Rade, William Reed, Eric Reid, Chris Scola, Rene St. Amand, Mike Waine, John Windels, Vincent Damm, Charles Etzel, Joesph Gilbert, Joel Lizza, Wes Townsend

## Summary

The majority ( 25 out of 27 individuals) of those who commented at the hearing supported maintaining status quo allocations for all three species. Two individuals indicated that they were opposed to maintaining status quo allocations and would follow up with more specifics in a written comment. Nine commenters expressed frustration with the perceived lack of accountability in the recreational sector, and supported status quo in order to prioritize the Recreational Reform Initiative. Three commenters noted that the alternatives were based on questionable science and expressed an issue with the new MRIP calculations. Two commenters indicated that this amendment was only increasing the divide between the recreational and commercial sectors.

Questions were raised about the possibility of an alternative that would keep the commercial fishery at similar quota levels and give the recreational fishery more if and when abundance increased. Staff noted that this was not possible at this time due to this recommendation not falling within the range of alternatives in the document. Questions were also raised about whether the food value of commercially harvested fish will be taken into account when making these decisions. Other questions included clarification on how commercial and recreational discards were calculated and if precise quotas and RHLs based on actual future ABCs and discards would be made available. Staff noted that it is not possible to precisely predict future limits, which depend on future ABCs which are unknown beyond 2021. Limits also depend on sector specific discard projections, which are informed by recent trends and Monitoring Committee advice. The example commercial quotas and RHLs in the document using the 2020 ABCs and a regression approach to estimate discards are the best estimate of future limits at this time.

## Comments

Warren Kremin (Blue Ribbon Fish Co.): Will the Council consider the food value of commercially harvested fish? The commercial industry is feeding the public, and you can't monitor recreational catch rates as well as commercial. We are feeding people. The country has a food shortage. The recreational fishery does not feed the population, and they do not need more quota. Taking away from commercial fishery will take away jobs.

Sean Barrett (Dock to Dish): I can only support status quo for this amendment on the scup, black sea bass, and fluke quotas. New York cannot afford to lose more quota in these fisheries; it will be devastating
to me and my fishing community and the businesses that support us. I support the Recreational Reform Initiative to try and turn discards into landings, but I cannot support taking my landings that feed people and turning them into their dead discards.

Dan Farnham Jr. (Commercial fisherman): We have seen commercial effort and participants held at status quo, while the recreational sector has seen growth. This is the trend with any type of population growth. The cost to access the recreational fishery has decreased over time, and we will always see their effort increase. We need Recreational Reform. They have been going over their quotas, and we have retroactively realized they went over and now that there is an increase in biomass, we can justify the increase to the effort they put in. I would like to see no action, with the regional administration addressing Recreational Reform first.

John Davi (Commercial fisherman): I would like to see the allocations stay at status quo forever. They shouldn't pull quota from commercial when it is recreational that is the problem. This is just causing a divide between the sectors.

Katie Almeida (Town Dock): Ms. Almeida reiterated comments made at a previous hearing in favor of no action and prioritizing the Recreational Reform Initiative before considering reallocation. She provided the following additional comments at this hearing: We should be supporting the US seafood and supply chain, and this reallocation is taking food out of the public supply chain. The commercial sector is held to a very strict quota, and the recreational sector does not have the same accountability.

Peter Consiglio (Commercial fisherman): Commercial fishermen are getting cut out on the state and federal end and are already trading seafood for energy. Now they want us to trade our livelihoods for more recreational fishing. I support status quo.

Mike Fallon (Commercial dragger): I can only support status quo, and I don't know why this is even a discussion.

Dave Aripotch (Commercial dragger): Mr. Aripotch reiterated comments made at a previous hearing regarding the lack of effort controls in the recreational fishery and resulting recreational overages as well as his support for status quo allocations and the Recreational Reform Initiative.

Elain Fallon (Commercial industry): I hope for status quo, and I hope that you are really listening to what the public is saying. Unfortunately when stakeholders make comments, their comments are heard but not considered before making policies.

John DePersenaire (Recreational Fishing Alliance): Mr. DePersenaire reiterated comments given at previous hearings regarding the new MRIP data as the best available science and not supporting status quo allocations.

Tim Froelich (Commercial fisherman): I support status quo. Twenty to 25 years ago we were told that in the future we would be made whole. This just seems like a quota grab. Status quo should be kept until we can come to a point where we can agree on all the terms and quotas. This is like changing the rules in the middle of the game. If the recreational side needs more quota because they're overharvesting, they need to go back to the drawing board and increase the overall limits so we all benefit.

Greg DiDomenico (Lund's Fisheries): Mr. DiDomenico reiterated comments made at previous hearings regarding support for status quo allocations, prioritizing the Recreational Reform Initiative over this amendment, and a desire to allow for more liberal recreational management measures without reallocation.

Joe Gilbert (Commercial fisherman): Support status quo.
Meghan Lapp (Seafreeze Ltd/Seafreeze Shoreside): Ms. Lapp reiterated comments made at previous hearings regarding confusion about the 2019 black sea bass numbers, which were recently released and not incorporated into the amendment document, as well as concerns about the scale of recreational discards and a perceived lack of recreational accountability. She also reiterated her previous comments in favor of status quo allocations and completion of the Recreational Reform Initiative before considering reallocation.

Bill Foster (Commercial fisherman): Commercial data collection is a census; for recreational, everything is an estimate full of assumptions and uncertainty. If recreational wants limited entry, vessel permits, logbooks, dealer reports, bycatch reduction measures, then get those in place and then we can talk reallocation. Status quo because I do not think any of the alternatives are based on science.

Chris Scola (Commercial fisherman, Montauk): I can only support status quo. The commercial fishery and the public shouldn't be punished because the recreational fishery isn't accountable for their overages.

Mike Waine (American Sportfishing Association): Mr. Waine repeated his support for reallocation expressed at a previous hearing. He added the following additional comments during this hearing: We know allocation is an incredibly painful process, but this is honestly more painful than I expected. When stakeholders are in this position about fighting over who gets to catch what it makes everyone extremely defensive and forces them to ignore the facts to justify their positions. That's exactly what's happening here as I listen to the comments and it's really disappointing. We'll follow up with written comments based on the facts in the document, we do not support status quo.

Denis Froelich (Commercial industry): I support status quo for all 3 species.
Brent Fulcher (Commercial fisherman): Mr. Fulcher reiterated comments made a previous hearings in support of status quo allocations, a desire to turn dead discards into landings, and noting that the commercial fishery has been more controlled than the recreational fishery.

Julie Evans (East Hampton Town Fishery Advisory Committee): We support status quo. With more work, we could come to an agreement on your proposal moving forward.

Joel Lizza (Commercial fisherman): I support status quo. I am not looking to hurt the recreational industry, and there is no reason to divide us to hurt each other. The number of recreational fishermen keeps increasing, and they are entitled to do so. We need to get control of discards on the recreational side, and reallocation is not going to fix the problem.

Charles Etzel (Commercial fisherman): I can only support status quo. New York already chronically under harvests and smooths over recreational overharvest. It is just not right.

Daniel Malone (Commercial fisherman): Get Recreational Reform going. I support status quo on allocations.

Bonnie Brady (Long Island Commercial Fishing Association): Ms. Brady reiterated similar comments that were made at prior hearings that the commercial fishery is important to small businesses and communities, and has been held accountable for overages, while the recreational fishery has not. She added that the goal is to have optimal yield, not discard as many fish as you can.

Mark Phillips (F/V Illusion): Recreational participation has increased, but we haven't been able to increase commercial. We didn't realize how bad we were getting screwed in the mid-1980s with fluke as
commercial fishermen with no representation on the council. We have to be responsible for our own catch, where recreational has been allowed to do whatever they want because they never get punished. I am for status quo, and we need recreational accountability measures. Once group should not be rewarded because the council cannot do their job.

Howard Bogan (Recreational Party/Charter): I do not support status quo, but I am unsure what alternative I support yet.

Vincent Damm (Commercial fisherman): I support status quo. We get shut down while recreational does not.

## 3 Written Comments

This section includes all written comments on the amendment received or postmarked from January 15, 2021 through 11:59 pm, Tuesday, March 16, 2021, including those received by email, web form, fax, or mail.

## Name: JOHN HERRICK

## Email: herrickj01930@yahoo.com

Check all that apply: Private Recreational Angler, Charter/Headboat For-Hire Captain, Commercial Fishing Industry

## : JOHN HERRICK

Comments: With ocean temperatures rising and species such as black sea bass moving farther north, what is the plan for expanding the number of available commercial state permits? Is there a plan for commercial permits north of Boston for the future similarly to the way state lobster permits are issued? Thank you,
John
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## Name: JOHN HERRICK

## Email: herrickj01930@yahoo.com

Check all that apply: Private Recreational Angler, Charter/Headboat For-Hire Captain, Commercial Fishing Industry

## : JOHN HERRICK

Comments: As these fish move farther north, I'd like to see the vison for more summer commercial opportunities. Example, black sea bass were not found in quantity north of Plymouth in 2000. Now we catch them in lobster traps during the summer months on Cape Ann.

Thank you
Name: joseph hickey
Email: joehickey@,comcast.net
Check all that apply: Private Recreational Angler
: joseph hickey
Comments: I oppose any reductions

From: Gary Puma < garytpuma@gmail.com>
Sent: Friday, January 15, 2021 4:20 PM
To: Kiley Dancy
Subject: Summer Flounder
The size limitation is too large for these fish.
Everyone should be able to take one fish home at 14 ". Then let the larger size kick in up to the limit that you decide is
best for the fishery. This way people can bring home on fish for a dinner plus the larger size if they catch one that meets
that standard.
Gary Puma
35 Rosewood Drive
Shrewsbury, NJ 07702
From: Matt Fitzgerald
To: Kiley Dancy
Subject: Scup, fluke, and seabass allotments
Date: Tuesday, January 19, 2021 5:31:26 PM
Please stop allowing our public resources to be destroyed for profit. It is disgusting!!! You are ruining our fishery and causing untold damage to the future of our ecosystem for money. This makes sense to you? Insane! Look at the historical data. Of course we all know this does not matter to you as you only care about satisfying the needs of a few by ignoring everyone else. Do we allow the harvest and sale of wild game? No, of course not!!! Wake up!

Name: Peter Athaide

## Email: Taoghiro@comcast.net

Check all that apply: Private Recreational Angler
Comments: I feel that the size limit should be the same for both commercial and recreational fishermen. You can adjust the bag limit to control how many fish are taken. Also I feel that the Black Seabass season should be longer into the Fall. You can control the seasonal limits again by adjusting the daily bag limit. Thanks Peter

From: Jean Public [jeanpublic1@yahoo.com](mailto:jeanpublic1@yahoo.com)
Sent: Tuesday, January 19, 2021 3:05 PM
To: tina.berger@mafmc.org; mary_sabo@mafmc.org; Leaning, Dustin Colson; Kiley Dancy; info@peta.org; information@sierraclub.org; info@pewtrusts.org; info@godscreaturesministry.org Subject: Fw: MAFMC and ASMFC to Hold Public Hearings for Summer Flounder, Scup, and Black Sea Bass Commercial/Recreational Allocation Amendment
public commenton federal register
i donot believ the catch reports submitted by either recreational or commercial fishemen are honest but are in fact deceitful and dishonest as to catch. every time patrols board a boat there are extra fish taken which are not put on teh rolls as caught. every single time. i is quite clear they both are dishonest in filling out reports. for that reason, all catch to both shoudl be cut by $50 \%$ ^ immediately. this cmometn is for the public record. please rceipt. jean publiee jeanpublic1@yahoo.com
From: jean public
To: Kiley Dancy; INFORMATION@sierraclub.org; info@oceana.org; scoops@huffpost.com; contact@thedodo.com; PETA Info; bhackett@hsus.org; foe@foer.org; info@sort.org; info; info@sentientbeings.org; ANGI METLER
Subject: Fwd: comment
Date: Friday, January 29, 2021 12:56:36 PM
public comment on federal registe
this agency is admitting it hasnt changed some regs since 1990-20 years ago. shows inattention to changes ni this earth, doesnt it? i think all quotas need to be downsized by $50 \%$ immediately. teh overfishing is tremeneoud. this agency works only for pro the case. jean pubilee jean pubilc1@gmail.com

From: Jean Public [jeanpublic1@yahoo.com](mailto:jeanpublic1@yahoo.com)
Sent: Monday, March 15, 2021 10:22 AM
To: Kiley Dancy; info@oceana.org; info@pewtrusts.org; info@peta.org; bhackett@hsus.org
Subject: Fw: Reminder: Public Comment Deadline for Summer Flounder, Scup, and Black Sea Bass
Commercial/Recreational Allocation Amendment urgent
public comment all quotas should be cut by $50 \%$ immediately. You are allowing overfishing. this comment is for the public record. please receipt. jean publiee jean public1@yahoo.com

## Name: Patrick Fitzgerald

## Email: patrickfitzgerald884@gmail.com

Check all that apply: Private Recreational Angler
: Patrick M Fitzgerald
Comments: Through recreational fishing and conversing with other recreational and commercial fishermen, the consensus is that summer flounder is being overfished. In the last six years the frequency of keeper size summer flounder landed has decreased drastically. Larger summer flounder are harder and harder to find in Massachusetts and Rhode Island waters. The commercial dragging for summer flounder has detrimental effects on the seafloor that many other organisms (many of which are commercial and recreational species) depend upon for survival. The uprooting of seaweed is detrimental to mussel, clam, and squid larvae. This decreases survivability because the substrate they inhabited has been uprooted and destroyed. As you should know, many other marine organisms depend on the larvae to survive. This includes small summer flounder, black sea bass, and many other species. Now, my money pays for this fishery, as does the money of many others across the country. I cannot stand for the over exploitation of the species that I enjoy fishing for. I pay for a fishery that is managed under the Public Trust for the benefit of the public. I believe that this commission is not living up to this ideal. Commerical fishing is the privatization of a public resource for profit, which is not an ideal of the Public Trust Doctrine found in common law and court cases throughout the history of the United States. Commercial fishing is only detrimental to everyone and beneficial to few. Over fishing, especially allowing commercial vessels to overfish is the most detrimental to the future of the resource.

From: Center [bboutdoor1@aol.com](mailto:bboutdoor1@aol.com)
Sent: Tuesday, January 19, 2021 10:39 PM
To: Kiley Dancy
Subject: allocation
Good evening ,
I think the taking of black sea bass and scup as stated for 2020 for recreation fisherman were great. However flounder fisherman got left out. To many commercial boats scrape the bottom and kill every fish. Cut back on their numbers and allow the worm dunkers more of a chance to catch these great fish until June 15 then allow the draggers into Boston Harbor, Cape Cod Bay, Plum Island etc. Thank you
Bill Biswanger
Townsend Mass

## From: Charles etzel

To: Kiley Dancy
Subject: Commercial Recreational scup,sea bass,Summer Flounder amendment
Date: Friday, January 22, 2021 9:12:19 PM
To Whom It May Concern, I would like to comment in favor of the status qou going forward with this amendment. Here in NY we consistently work within our low quota shares and any further cuts would be very problematic. Sincerely, Charles Etzel

Name: Ron Musselman

## Email: powercat0@comcast.net

Check all that apply: Private Recreational Angler

## : Flounder

Comments: I have been flounder fishing for 50 years. I have seen the decline of the stock over time. I have seen the stock numbers also rise and again decline. What I don't understand is the thought that mandating the harvesting of nothing but female, over 18 " fish, makes sense to rebuild a declining stock, at least here in southern New Jersey. Also, allowing the commercial draggers to harvest flounder offshore during their breeding season.

I belong to a fishing club with over 100 members and everyone can't understand the reason for not having some kind of slot fish regulation to reduce the harvesting of nothing but the egg producing females.
Regards,
Ron Musselman
Name: Joe Jurasek
Email: josephjurasek@yahoo.com
Check all that apply: Private Recreational Angler
: I oppose the reallocation of fluke and sea bass
Comments: There should not be a reallocation of fluke and Black Sea bass. I'm not sure why this needs to be done, other than to benefit the commercial fisherman. Why take more from the recreational fishermen. Last year you changed the striped bass regulations to benefit the commercial fisherman and limited the recreational fisherman. You stated it was so the bigger fish could breed more bigger fish? That doesn't make sense when you allow the commercial fishermen to take the same fish you said we need to protect. Also, they can still use any hook and potentially kill all the fish 34 " and under. Now you want to limit what we can catch for fluke and sea bass for the recreational fisherman and give more of it to the commercial guys. Just a question, is this board filled with members who are commercial fishermen? Because it really doesn't seem to have the best interests of the recreational fishermen in mind.

Name: Stephen Katkowski
Email: stevekatkowski@gmail.com
Check all that apply: Commercial Fishing Industry
Comments: Commercial and recreational quotas should be kept separate. Should either group overfish it's quota, they should be held accountable and quotas readjusted based on each groups activity. Borrowing quota to balance the take from each group only works on paper. Maybe

Name: Zigurds Zingis
Email: jzingishome3@verizon.net
Check all that apply: Private Recreational Angler
: Z. John Zingis
Comments: While I fully understand the fish size limit for summer flounder to be 18 ", there are plenty of fish that approach the target length of 18 " I believe there should be one "slot fish", perhaps between 17-18". Keeping one slot fish would satisfy anglers and reduce summer flounder mortality.

Name: RICHARD REICH
Email: rareich1@verizon.net
Check all that apply: Private Recreational Angler
: RICHARD REICH
Comments: While Fluke fishing in May I always catch my biggest Sea Bass of the season.. I normally fish inshore up to 90 feet of water out of Point Judith. The amount of Sea Bass we catch now is greater than the Fluke and it seems to increase every year. Please open the season early as Connecticut and Massachusetts have May 19th

From: fdefinis@verizon.net
Sent: Monday, February 15, 2021 8:55 AM
To: Kiley Dancy
Subject: Fluke/Scup/Sea Bass Allocation Amendment
As a recreational angler, I strongly urge that this amendment be postponed pending further study. The reason for my concern is that the impetus for this shift is largely based on a change in sampling procedure, not on what is happening on the water.
-The old random telephone survey was statistically invalid due to response bias or more properly, lack of response bias. Upgrading the sampling process via the newer mail survey did not change how many fish are in the sea nor how many are being caught.
-APAIS data is very heavily skewed towards charter and party boat anglers and severely underrepresents private anglers. Again, we have a very small sample size for private anglers. You cannot compare the experiences of those fishing with a professional captain whose job is putting anglers over the fish and those fishing from shore or private craft.

Generally speaking, there are too many data anomalies to warrant this type of radical change without more study. As an example, I would defy you to find a Rhode Island angler who would say there are more summer flounder or that he/she has caught more summer flounder than previously. Going from a very poor to perhaps barely acceptable data set does not justify a sudden change in allocations.

This amendment needs to be shelved so that all the stakeholders have more time to analyze how we got to this point.

Fred DeFinis
16 Evelin Circle
Middletown, RI.
Name: Charles Julian

## Email: zionlion31@gmail.com

Check all that apply: Private Recreational Angler, Charter/Headboat For-Hire Captain, Commercial Fishing Industry
: Charles Julian
Comments: As a commercial fisherman, I am very concerned about the proposed black seabass allotment. These 3 species are my bread and butter and reducing my allotment will put my family in economic jeopardy. I strongly believe that out local biomass is very strong and do not feel it is overfished. Please reconsider leaving the black seabass fishery as status quo.

Sincerely
Charles Julian

## Name: Robert Severi

## Email: robert.severi@gmail.com

Check all that apply: Private Recreational Angler
Comments: Please promulgate regulations to ensure the viability of our fisheries, which are presently under distress and faltering. Please be guided by the science and not emotionally based feelings. Please take advisement from only subject matter experts. I don't have the expertise and data to suggest the most prudent direction. However, my antececdotal long term recreational fishing experience clearly indicates that all of our fisheries are under extreme duress. Fishing is worsening. Whatever we're doing isn't working. Let's try something else. Perhaps the subject matter experts can recommend an acceptable solution. Thanks for asking for my input.

Name: Michael Spall
Email: mspall@whoi.edu
Check all that apply: Private Recreational Angler
Comments: The recreational summer flounder fishery in Vineyard Sound is dead. Typically less than $1 / 10$ meet the 17 " limit. This is no surprise when the commercial size limit is $14{ }^{\prime \prime}$. How do you expect anything to be left for the recreational fisherman?

Name: Raymond LeFante
Email: ray79@aol.com
Check all that apply: Private Recreational Angler
: Raymond LeFante
Comments: As a dad with 3 sons spending money on a boat trip is very expensive. It is over a $\$ 500.00$ day when you add in bait, tackle, food, gas, tolls, boat fare etc. To come home with zero fish is frustrating and disappointing especially when I can go to Wegmans and buy the same fish for $\$ 18.00$ per pound. We need a slot limit of one fluke $16-17$ " so it pretty much guarantees a few fillets. Not only that it makes a better experience for young anglers who are the future of the sport when they can take a fish home and show mom. It makes them want to go again. Having kids with a positive hobby like fishing will prevent them from going down a wrong path.

Name: Luciano Mascari

## Email: luciano.mascari@gmail.com

Check all that apply: Private Recreational Angler, Commercial Fishing Industry
: Luciano Mascari
Comments: In neither of these alternatives do we see any changes in individual minimum fish size / length that impact the biomass. E.g. in MA Commercial summer flounder minimum is 14 " while recreational is $171 / 2$ " I would like to see an increase in minimum length for commercial rather than a decrease in minimum for recreational. Same goes for Black Sea Bass and scup individual fish size. This would enable the biomass average catch size of each fish to increase over time and result in higher egg laying. Greater satisfaction for recreational fishers experiencing higher quality catch rates. additionally having higher quality products for commercial fishers with less individual size fish to achieve daily quotas over time. Racing down to high catch rate of smaller less mature fish is a recipe for fish stock collapse just like in the Cod fishery.

As good stewards of the seas, what are we doing to improve the size and quality of the biomasses for improved sustainability?

Name: Ronald Rosa
Email: ron_rosa52@verizon.net
Check all that apply: Private Recreational Angler
: Fluke/scup/sea bass allocation amendment.
Comments: For several years now the minimum length to keep fluke has been $18{ }^{\prime \prime}$. Almost every fluke caught has been a throw back since few, if any, were 18". I feel that each angler should be allowed to keep 1 fluke $16^{\prime \prime}$ or more and 2 at $18^{\prime \prime}$ rather than 3 at $18^{\prime \prime}$. This way at least there is a better chance for an angler to bring home a fish rather than go home empty handed.

## Name: Kevin Kloza

## Email: kevnmary@optonline.net

Check all that apply: Private Recreational Angler
Comments: As a new boat owner I was surprised and disappointed to have the Summer Flounder season close last year on Sept 19 and no open season for sea bass until October 8th. This basically leaves a recreational angler with nothing to fish for almost 3 weeks. With reduced seasonal crowds and perfect weather this is the time that we want to be on the water practicing safe social distancing and enjoying more relaxed angling. From a conservation perspective I would rather the fluke season start on June 1st and extend past the end of September. If this threatens the biomass I would prefer a 3 fish 18 1/2 or even 19 inch fish limit per angler, a fair trade off for more opportunities in the Fall. Additionally, as a private angler I question why such a long closure in the seabass season. 5 weeks closed? A reduced limit or larger size requirement still allows anglers to target the fish with little threat to the species. My experiences last year indicated a abundance of smaller seabass at almost every rockpile in Monmouth County. I urge the counsel to consider the recreational angler and give us something to target in the early Fall.

Name: KEITH PISKORSKI

## Email: tillie8@,optonline.net

Check all that apply: Private Recreational Angler, Charter/Headboat For-Hire Captain
: SEABASS, FLUKE
Comments: I FISHED AT LEAST 3 TO 4 DAYS OUT OF 7 LAST YEAR AND THE FLUKE FISHING WAS OK, BUT THROWING BACK SHORT FISH ONLY FOR THE COMMERCIAL DRAGGERS TO SCOOP THEM UP FOR HARVEST IS NOT A FAIR GAME PLAN. WE WOULD LIKE TO SEE A 3 FISH LIMIT, 2 AT 18" AND 1 AT 17" WOULD WOULD BE A LITTLE MORE FEASIBLE.
AS FOR THE SEA BASS AFTER THE FIRST WK OR 2 IN THE FALL A KEEPER WAS NON EXISTING, AND AGAIN FOR THIS YEAR THE THE COMMERCIAL LIMIT WAS RAISED. HOPE YOU COULD EXPLAIN THAT TO ME.

THANK YOU FOR YOUR TIME
KEITH PISKORSKI
CONCERNED ANGLER

## Name: William Rathjen

## Email: billar@verizon.net

## Check all that apply: Private Recreational Angler

Comments: Believe there should be a slot size of $161 / 2$ or $17^{\prime \prime}$ of 1 fish for recreational fishermen to be allowed to take 1 ffluke home for dinner. The large fluke are the breeders and the backwaters are full of fluke under 18 ". It is very common to catch 20-30 fish and go home empty handed.Give the recreational fishermen a break. Thank You. Bill Rathjen

Name: Edward Lloyd Jr
Email: nikkadog1@optimum.net
Check all that apply: Private Recreational Angler

## : Edward Lloyd Jr

Comments: Flounder Fishing Season size limit. It is hard to keep track from state to state .Like New Jersey to New York for example Jersey size limit is 18.5 and New York say it 19 inch. Person fishing already has an illegal fish. How can you or all the Eastern State come up with one size fish that will fit all state up and the coast,

Name: Ray Heagele

## Email: rheagele@gmail.com

Check all that apply: Private Recreational Angler
Comments: Please make the regulactions universal for the entire zone. The area you cover is not that variable. It iratates me each Time I throw back a $17 \ln$ fish when across the bay I could keep a $16 \ln$ fish. It just doesn't make sense.

From: dannylester [dannylester@optonline.net](mailto:dannylester@optonline.net)
Sent: Thursday, February 18, 2021 2:52 PM
To: Kiley Dancy
Subject: quota allocation
I am a commercial fisherman and i would like to see that our quota stay the same for all on the agenda. I can't believe anyone would even think to give ours to the rec side. If anything the commercial quota should be raised. Thank you i hope you take all correspondence into consideration.

Daniel Lester

## Name: Carmine Taffuri

## Email: carminet@comcast.net

## Check all that apply: Private Recreational Angler

Comments: I would like to see a change in size limits for Summer Flounder. I believe the Commercial limit should be the larger due mainly to the fact that this fishing is done with nets, rather then rod/reel. I feel that the Recreational limit should be 14 " since with this change these fish would hopefully be smaller then the net mesh size and therefore not end up as dead by catch. I've been fishing for 60 years, and its always been nice to bring home family dinner, but with trawlers being able to take 14 " fish, how many 18 " fish do they also remove from the biomass, and thus from the recreational quota? On a dollar and cents point, I spend $\$ 40$. to go out on a day boat, and hopefully catch 1 or 2 fish, if I don't get anything and go to the store on the way home, I'm paying $\$ 12 . / \mathrm{lb}$. for a fish I could not legally keep at sea!

Name: Chuck Weimar
Email: star2017@aol.com
Check all that apply: Commercial Fishing Industry
Comments: The actions I support are For Fluke 1A-4 Status Quo For Scup 1B-1 Status Quo For Black Sea Bass 1C-4 Status Quo And I request that the Recreational Reform take place prior to any reallocation amendment.

Name: Bill Forster

## Email: Bill_1860@aol.com

Check all that apply: Private Recreational Angler
Comments: Limits are still needed. I have not seen anyone take a Flounder or a Fluke from the waters between Winthrop and Marblehead in years. I have stopped fishing off Nahant and and the Lynn Pear because there is nothing to catch. Over the last few years I have seen two small trawlers going back and forth off Nahant Beach and Revere beach out of season and at night.

I suspect they have cleaned out any fish and scallops in the area.
Sincerely,
Bill Forster
Nahant

From: JOSH ELDRIDGE [monomoyjosh@gmail.com](mailto:monomoyjosh@gmail.com)
Sent: Thursday, February 18, 2021 5:33 PM
To: Kiley Dancy
Subject: Fluke/Scup/Sea Bass Allocation Amendment
From Josh Eldridge

## Capt/ owner Monomoy Charters Nantucket

5089011120

To whom it may concern,
My thoughts on the proposed changes to Summer flounder, Black Sea bass, and Scup proposals.

### 4.1.1 summer flounder

1a-7 landing based allocation, with a 5 year phase in 1d-4.
4.1.2 Scup

1b-7 landing based allocation, with a 5 year phase 1d-4.

### 4.1.3 Black Sea Bass

1c-7 landing based allocation, with a 5 year phase 1d-4

I feel these actions would move the most amount of quota away from the dragger industry who's "dead discard" levels (page 7, note 2) are ridiculous. Although I do appreciate the nature of it as a "Historic Fishery" it's time this industry adopt newer methods to decrease by-catch and it's dead discard rate, or go away. One thing not represented in the document is the by-catch. I realize that those numbers are probably documented in there respective fisheries, but I think it's important to have those numbers represented here to see and understand the big picture. The Summer Flounder and Scup fleet in Nantucket sound are landing almost as much in whelk and horseshoe crab as they are in scup and flounder.

The 5 year phase in would allow a more accurate monitoring of both the commercial and recreational fisheries, and allow for adjustments to both as needed. The landing based allocations seem like it would focus more closely and hopefully accurately on the "Dead Discard" numbers. (Personal note, I watch the daggers in Nantucket sound dump 100s to 1000 s lbs of dead scup every spring/early summer because it's "to much work to deal with". These landings/ dumpings need to be counted against the quota)
\#5 quota transfers
2a no action/status quo
At this point in time with a five year phase in plan, I would not be in favor of making quota available to transfer. With as many changes proposed already, I think it would be important to see exactly how they affect both the commercial and recreational before we start moving quota around.
\#6 Framework Provisions
3b allow changes
I feel that this will be an important tool in managing fisheries. The ability to make small adjustments and changes in a timely manner that address the current needs of the fisheries will be vital in moving forward. Thoughts moving forward. I would love to see a commercial trap category have its own quota. Quota could be taken back from the recreational category to start it.

Thank you for your time.
Sincerely
Josh Eldridge
Nantucket
5089011120
Sent from my iPad

From: Beverly Lynch < braelynch@gmail.com>
Sent: Saturday, February 20, 2021 9:31 AM
To: Kiley Dancy
Subject: fluke/scup/seabass allocation amendment
Regarding giving commercial black sea bass quota to recreational fishermen
I'm for status quo.
In VA, MD and DE, fishermen have individual quotas which they earned. Some have sold theirs, which they have a right to do, to pay for their retirement.
All quotas should have gone to fishermen who worked for them, not to states to redistribute politically.
You have already redistributed MD and VA quotas to the detriment of fishermen who lived by them. The virus has devastated markets. This is the worse time to even consider taking away quotas.

Name: Chris Scola

## Email: scolathecrab@yahoo.com

Check all that apply: Commercial Fishing Industry
Comments: Under no circumstances should quota be transferred from the commercial to recreational sector . Lower quotas will result in shorter seasons and higher discards . Also wholesale and retail prices will increase due to lack of product which will punish restaurants that are already struggling and punish consumers at a time that people are struggling financially. Also, with rising fuel prices and rising costs commercial fishermen shouldn't lose opportunity to pay their increased costs .

Commercial fishermen are the conduit that gives the public access to our shared resources . Increasing recreational quota at the expense of the commercial sector equates to privatization of the public resource. The only increase for the recreational sector should be for the for hire sector, but not at the expense of the commercial industry .

Recreational fishermen should bare the same burden for exceeding quota that the commercial fishermen endure .If they must endure shorter seasons for exceeding their TAC then so be it . It's imperative that the recreational sector be better monitored. The current optional dockside interview program is a joke. Proper monitoring will result in better adherence to quotas

## Name: TIMOTHY ANFUSO

## Email: CNPLANNERS@OPTONLINE.NET

Check all that apply: Private Recreational Angler

## : TIMOTHY ANFUSO

Comments: To Whom It May Concern;
I believe the main problem with the Summer Flounder fishery is the decline in recruitment which has occurred over the past 20 years. To increase recruitment and the young of the year, I propose the following.

1. Discourage, reduce and minimize fishing pressure on large breeders. Here in New Jersey we have an $18^{\prime \prime}$ minimum size. The sex study performed by Rutgers University on party boat landing showed the overwhelming majority of the fish greater then $18^{\prime \prime}$ in size are female. I mainly fish the Sandy Hook area and in 2020 I landed 43 fluke of which 3 fish were of legal size. While cleaning the fish I discovered that all 3 fish were female. The size regulations should be designed to balance the number of male and female fish harvested.
2. Stop all recreational and commercial fishing for Summer Flounder during the spawning period. I believe the spawn occurs from September through February. and all fishing for Summer flounder should be closed at this time. Please give the fish the chance and the time to reproduce.

Thank you for your time and consideration,
Tim Anfuso
From: George Vigeant [georgevigeant@yahoo.com](mailto:georgevigeant@yahoo.com)
Sent: Monday, February 22, 2021 11:20 AM
To: Kiley Dancy
Subject: Fluke/Scup/Sea Bass Allocation Amendment
How sea bass commercial increased 50 lbs rod reel 100 lbs pots and recreational is still 5 fish per person and closing in September I feel the entire board are commercial fisherman I will draw up a letter to send out to all fishing magazines and newspapers. This is so unfair the fishery can support increases for commercial but not for recreational why wouldn't, you offer 3 fish per person thru end of year tautog fishing in the fall we have throw back sea bass even if there going to die.
Sent from Yahoo Mail for iPad
Name: David Trader

## Email: dtrader62@icloud.com

Check all that apply: Commercial Fishing Industry
Comments: My name is David Trader and I vote status quo for Summer Flounder, Scup and Black Sea bass.

From: rfyogibear@aol.com
Sent: Thursday, February 25, 2021 1:36 PM
To: Kiley Dancy
Subject: summer flounder, scup, sea bass limits
as a recreational fisher of these species of course i would support a higher percentage for us then commerical limits. I would prefer fluke limits to be higher for recreational as their size limit already makes them somewhat hard to keep. I would be willing to support lower recreational limits on sea bass and scup. their size limits are easier to obtain and they seem to be a little more abundant.
also do you have any fish pamphlets or pictures? my grandsons would love them. thank you, robert f., massapequa,ny

Name: Allen 'Buddy' Seigel

## Email: buddyscrn@gmail.com

Check all that apply: Private Recreational Angler, Other (please describe below)
: Sr VP Atlantic Coast Sportfishing Assoc., Brd Member, Ocean Pines Angelers, Advisor, ASMFC SFSBSB

Comments: Last night, I listened to the discussion concerning options for the SFSBSB. First, I recommend status quo if there are noted actions taken to understand the numbers. For years, The numbers used reflect the best scientific methods available. This is and has been an excuse not to get a better understanding of all of the fisheries. Commercial captains, headboat captains, and charter captains are on the water every day and this great resource is not used! As the numbers come out, there is no sanity check to see if the numbers make any sense! (before they hit the street). Not all species will fit the same mold in multiple areas of the same state. But under MRFFS and MRIP they must! "Our" best available science" is NOT good enougth and will only get worse! Mathematical formulae that are certified as valid prove only that the formula was applied properly, not that they are real and approved by the "USER" community. When will we get this right? We are basing our future on flawed data!

## Buddy Seigel

SFSBSB - Summer Flounder, Scup, Black Sea Bass
Name: Ilya Elkin

## Email: pennh2o@hotmail.com

Check all that apply: Commercial Fishing Industry
Comments: Please do not change the commercial allocation of black seabass. Please keep it status quo. The commercial sector's regulations are finally getting better due to the increased biomass, please keep it that way. Thank you for you time.

Name: Jim Wack
Email: jimwack2@aol.com
Check all that apply: Private Recreational Angler
Comments: Vote for Summer Founder Option \#1
Name: Michael Marks
Email: mjmarks@icloud.com
Check all that apply: Private Recreational Angler
Comments: I would prefer a vote for the later fluke season!
Name: Lisa Alp
Email: lisaalp@optonline.net
Check all that apply: Other (please describe below)
: Consumer
Comments: Please keep the status quo for all three species; do not change the current allocation. With local fisheries and local seafood having my support and best interest in mind, I believe that reallocating quotas will reduce the availability of fresh, local seafood from my local markets and restaurants.

Name: Jon Trask

## Email: jontrask@optonline.net

Check all that apply: Other (please describe below)

## : Consumer

Comments: Please don't make any changes to the status of the 3 species described above. Any changes that reduce the availability of fresh local fish to the local consumers is just wrong. In our house, we look forward to enjoying all the fresh local seafood possible. It is a major staple on our menu and I hope you do not jeopardize this most treasured precious natural commodity . Thank you

## Name: Charlie Weimar

## Email: cweimar21780@hotmail.com

## Check all that apply:

Comments: My name is Charles Weimar Jr I am a New York commercial fisherman, I have been a comm fishermen for 20 years, I work on the RiandaS and the only action I can support is status quo for this amendment on the scup, black sea bass, and fluke quotas. New York cannot afford to lose more quota in these fisheries, it will be devastating to me and my fishing community and the businesses that support us.

From: dannylester [dannylester@optonline.net](mailto:dannylester@optonline.net)
Sent: Tuesday, March 2, 2021 3:15 PM
To: Kiley Dancy
Subject: scup,fluke and sea bass quota
My name is Dan Lester i have been a commercial fisherman for 30 years on the east end of Long Island. I am writing in regards to the meeting tonight ,I believe we should keep it as it is. Status quo. If anything the commercial guys should get more quota not less. I also support the recreational reform they should be able to turn their discards into landings. I cannot support taking my landings and turning them into their dead discards. This was never the intent of the Magnuson act.
If the commercial quota is lowered it will be devastating to us fisherman and our communities. Thank you Dan Lester

Name: Nathaniel Miller
Email: miller_nat@yahoo.com
Check all that apply: Commercial Fishing Industry
Comments: "My name is Nathaniel miller, I am a New York commercial fisherman, I have been a comm fishermen for 25 years, and the only action I can support is status quo for this amendment on the scup, black sea bass, and fluke quotas. New York cannot afford to lose more quota in these fisheries, it will be devastating to me and my fishing community and the businesses that support us.

I also support a recreational reform amendment so that they can help their fishery to turn discards into landings. But I cannot support taking my landings that feed people and turning them into their dead discards. That was never the intent of Magnuson. "

From: Charles etzel [chucketzel@yahoo.com](mailto:chucketzel@yahoo.com)
Sent: Tuesday, March 2, 2021 6:35 PM
To: Kiley Dancy
Subject: Comments on recreational reallocation webinar
To Whom It may Concern,
My name is Charles Etzel,
I am a New York commercial fisherman, I have been a comm fishermen for 20 years, I own and operate the Fish Dragger Damariscotta, and the only action I can support is status quo for this amendment on the scup, black sea bass, and fluke quotas. New York cannot afford to lose more quota in these fisheries, it will be devastating to me and my fishing community and the businesses that support us.

I also support a recreational reform amendment so that they can help their fishery to turn discards into landings. But I cannot support taking my landings that feed people and turning them into their dead discards. That was never the intent of Magnuson. "

Charles Etzel
Name: Sean Barrett

## Email: docktodish@gmail.com

Check all that apply: Commercial Fishing Industry
: Community Supported Fishery Program of New York
Comments: Hello my name is Sean Barrett, I operate Dock to Dish which is the Community Supported Fishery of New York headquartered in Montauk. I have operated the program since 2012 and the only action I can support is status quo for this amendment on the scup, black sea bass, and fluke quotas. New York cannot afford to lose more quota in these fisheries, it will be devastating to me and my fishing community and the businesses that support us. I also support a recreational reform amendment so that they can help their fishery to turn discards into landings. But I cannot support taking my landings that feed people and turning them into their dead discards. That was never the intent of Magnuson.

From: BERGLIN [sberglin@optonline.net](mailto:sberglin@optonline.net)
Sent: Saturday, March 13, 2021 9:14 AM
To: Kiley Dancy
Subject: Scup, sea bass ,fluke reallocation
My name is John Berglin, I am a New York commercial fisherman, I have been a commercial fisherman for 40 years, my boat is the F/V Mary Elizabeth, and the only action I can support is status quo for this amendment on the scup, black sea bass, and fluke quotas. New York cannot afford to lose more quota in these fisheries, it will be devastating to me and my fishing community and the businesses that support us.

I also support a recreational reform amendment so that they can help their fishery to turn discards into landings. But I cannot support taking my landings that feed people and turning them into their dead discard. That was never the intent of Magnuson.

From: BERGLIN [sberglin@optonline.net](mailto:sberglin@optonline.net)
Sent: Saturday, March 13, 2021 9:38 AM
To: Kiley Dancy
Subject: Scup, sea bass and fluke reallocation
My name is Scott Berglin, I am a New York commercial fisherman, I have been a commercial fisherman for 40 years, my boat is the F/V Mary Elizabeth, and the only action I can support is status quo for this amendment on the scup, black sea bass, and fluke quotas. New York cannot afford to lose more quota in these fisheries, it will be devastating to me and my fishing community and the businesses that support us.

I also support a recreational reform amendment so that they can help their fishery to turn discards into landings. But I cannot support taking my landings that feed people and turning them into their dead discard. That was never the intent of Magnuson.

From: Wesley Peterson [commfishmtk@yahoo.com](mailto:commfishmtk@yahoo.com)
Sent: Monday, March 15, 2021 7:40 AM
To: Kiley Dancy
Subject: Bsb,scup,fluke amendment
To whom it may concern,
My name is Wesley Peterson, I am a New York commercial fisherman, I have been a comm fishermen for 25 years, my boat is the F/V Seaview, along with fishing I own a retail seafood market called Petersons and the only action I can support for the joint MAFMC/ASMFC commercial recreational allocation amendment for the scup, black sea bass, and fluke fisheries is to maintain status quo for all three fisheries. New York cannot afford to lose more commercial quota in these fisheries. It will be devastating to me and my fishing community and the businesses that support us.

I also support starting a recreational reform amendment immediately so the recreational sector can help their fisheries turn discards into landings.

But I cannot support the council and commission taking from my quotas that feed people and turning them into the recreational sector's dead discards. That was never the intent of Magnuson.

From: Sue Beckwith < suebeckwith82@msn.com>
Sent: Monday, March 15, 2021 9:04 AM
To: Kiley Dancy
Subject: Fluke/Scup/Sea Bass Allocation Amendment
My name is Paul Bruce Beckwith, I am a New York State commercial fisherman, I have been a comm fishermen for 59 years, my boat is the Allison and Lisa, and the only action I can support for the joint MAFMC/ASMFC commercial recreational allocation amendment for the scup, black sea bass, and fluke fisheries is to maintain status quo for all three fisheries. New York cannot afford to lose more commercial quota in these fisheries. It will be devastating to me and my fishing community and the businesses that support us.

I also support starting a recreational reform amendment immediately so the recreational sector can help their fisheries turn discards into landings.

But I cannot support the council and commission taking from my quotas that feed people and turning them into the recreational sector's dead discards. That was never the intent of Magnuson."

Bruce Beckwith
Montauk, NY F/V Allison \& Lisa
From: Sue Beckwith < suebeckwith82@msn.com>
Sent: Monday, March 15, 2021 9:18 AM
To: Kiley Dancy
Subject: Fluke/Scup/Sea Bass Allocation Amendment
My name is Susan Beckwith, I am the wife of a New York State commercial fisherman, he has been a commercial fishermen for 59 years, our boat is the Allison and Lisa, and the only action I can support for the joint MAFMC/ASMFC commercial recreational allocation amendment for the scup, black sea bass, and fluke fisheries is to maintain status quo for all three fisheries. New York cannot afford to lose more commercial quota in these fisheries. It will be devastating to me and my fishing community and the businesses that support us.
I also support starting a recreational reform amendment immediately so the recreational sector can help their fisheries turn discards into landings.
But I cannot support the council and commission taking from my quotas that feed people and turning them into the recreational sector's dead discards. That was never the intent of Magnuson.

## Susan Beckwith

Montauk, NY F/V Allison \& Lisa

## Name: Aaron Rozzi

## Email: Arozz17@aol.com

Check all that apply: Commercial Fishing Industry
Comments: My name is Aaron Rozzi. A New York State Commercial Fisherman (full time) for 13 years, the only action that I can support for the joint MAFMC/ASMFC commercial recreational allocation amendment for scup, Black Sea bass, and fluke fisheries is to maintain status quo for ALL three fisheries. New York State cannot repeat CANNOT afford to lose any more commercial quota in these fisheries. It will be devastating to me and my fishing community and the businesses that support us.

I also support a recreational reform amendment IMMEDIATELY so the recreational sector can help their fisheries turn discards into landings.

But I cannot support council and commission taking from my quotas that feed people and turning them into the recreational sector's dead discards. That was never the intent of Magnuson.

Or in your own words, above is just a suggestion.
Status Quo must stand.
From: Dan Fagan [fagan1356@yahoo.com](mailto:fagan1356@yahoo.com)
Sent: Tuesday, March 16, 2021 11:30 AM
To: Kiley Dancy
Subject: Commercial fisherman opinion
Sent from my "My name is __Daniel Fagan $\qquad$ , I am a (New York )commercial fisherman, I have been a commercial fishermen for 20 years, my boat is the $\mathrm{f} / \mathrm{v} 2$ seasons and the only action I can support for the joint MAFMC/ASMFC commercial recreational allocation amendment for the scup, black sea bass, and fluke fisheries is to maintain status quo for all three fisheries. New York cannot afford to lose more commercial quota in these fisheries. It will be devastating to me and my fishing community and the businesses that support us. I also support starting a recreational reform amendment immediately so the recreational sector can help their fisheries turn discards into landings. But I cannot support the council and commission taking from my quotas that feed people and turning them into the recreational sector's dead discards. That was never the intent of Magnuson."

From: Helene Fallon[hafallon@gmail.com](mailto:hafallon@gmail.com)
Sent: Tuesday, March 16, 2021 3:24 PM
To: Kiley Dancy
Subject: Summer Flounder, Scup and Black Sea bass commercial/recreational allocation Joint Amendment Comment
To Whom it May Concern:
My name is Michael Fallon, I am a New York commercial fisherman from Montauk, I have been a commercial fishermen for over 40 years, my boat is the Tamara Louise, and the only action I can support for the joint MAFMC/ASMFC commercial recreational allocation amendment for the scup, black sea bass, and fluke fisheries is to maintain status quo for all three fisheries. New York cannot afford to lose more commercial quota in these fisheries. It will be devastating to me and my fishing community and the businesses that support us.
I also support starting a recreational reform amendment immediately so the recreational sector can help their fisheries turn discards into landings.
But I cannot support the council and commission taking from my quotas that feed people and turning them into the recreational sector's dead discards. That was never the intent of Magnuson.
Sincerely,
Michael Fallon
Name: Aida Kuehn
Email: arkmarlin@optonline.net
Check all that apply: Private Recreational Angler
Comments: I support preserving the status quo. Thank you.
From: Denise Wagner mailto:wagnerfishingone@yahoo.com
Sent: Thursday, February 18, 2021 5:35 PM
To: G2W < G2W@asmfc.org>
Subject: [External] Seabass, Scup, Summer Flounder
We are against any transfer of quota to the Recreational Fishing Sector. After 20 plus years of low quotas, season closures and trip limits the stock has finally rebuilt to the point where a commercial fisherman can finally make a living fishing. Recreational Fisherman are in the minority when it comes people of the public as a whole. We catch fish and these fish are shipped all over the country to people who do not have access to them. The Recreational Fisherman fishing in their skiffs have 9 -5 jobs elsewhere. This is a living to us and we feed the public. So I only have one question to the board at that is "After all the suffering and sacrificing we have done over the years to rebuild the stock to the levels it is finally at, how can you justify taking the quota away?"
Joe and Denise Wagner
J W Commercial Fishing Inc
F/V Saturn
New Jersey

From: Paul [mailto:tok67@verizon.net]
Sent: Tuesday, February 23, 2021 11:01 AM
To: G2W < G2W@asmfc.org>
Subject: [External] Scup-Seabass-Summer Flounder

Good Morning,
Until quotas are based off on the last 6 years' data minus the last year, your information will always lack the most current trends of the fishing stocks true numbers. Last year's number, regardless of any species will only tell you what happened then.

The information has to be factual based. As for the commercial sectors, there should never be a quota adjusted or days adjustment during the season. Doing so WILL contributed to future overfishing. If the fish are not there to be caught, there is a reason why (shortage, weather, water temp, etc) extending the seasons or days will harvest fish from a different migration pattern and contribute to overfishing. If maybe fine for the rest of that season, but 3, 4, 5 years later now where are those fish!

The best senior for a commercial is to open the permits back up on a limited basis in Massachusetts.
The best Example the codfish this species HAS NOT REBOUNDED from overfishing.
regards
Paul

From: andrew dzenis [adzenis13@gmail.com](mailto:adzenis13@gmail.com)
Sent: Wednesday, March 3, 2021 9:50 PM
To: Dustin Colson Leaning
Subject: Commercial Fluke Quota Increase
Hi Dustin,
I strongly oppose increasing commercial catch quota of Summer Flounder by $49 \%$.
I have been a mate my entire life and last season was one of the worst fluke seasons on record, up and down the north east.

Rather than specific species, draggers should be given daily or weekly total quotas. The amount of dead loss and waste is astounding.

Sincerely, Andrew Dzenis

## From: Brian Ease [mailto:radefishhead@optonline.net]

Sent: Saturday, March 6, 2021 9:47 AM
To: G2W < G2W@asmfc.org>
Subject: [External] Fluke ,scup,Black Sea bass amendment

My name is Brian Rade from the F/V Defiant in montauk NY.I'm a year round commercial fisherman for 35 years now. The only action that I can support is status quo for this amendment as of now because New York cannot lose any more quota in these fisheries.It would be devastating to myself and all of the businesses here.we cannot support this until the recreational sector is reformed and controlled like the commercial sector is and has been for years.
Thank you,
Brian Rade
From: Dave Born [mailto:fishtrapper@gmail.com]
Sent: Thursday, March 4, 2021 5:57 PM
To: G2W < G2W@asmfc.org>
Subject: [External] Amendment Hearing

For all three status quo Thank You
From: Dave Born [mailto:fishtrapper@gmail.com]
Sent: Tuesday, March 2, 2021 5:51 PM
To: G2W < G2W@asmfc.org>
Subject: [External] Meeting

Leave everything alone it is working for everyone . Leave the allocation the same. Thank You Dave Bornemann

From: Tyler Maguire [tmaguire1228@gmail.com](mailto:tmaguire1228@gmail.com)
Sent: Saturday, March 6, 2021 12:45 PM
To: Kiley Dancy
Subject: Response to suggested reform amendment..
My name is Tyler Maguire, I am a New York commercial fisherman, I have been a comm fishermen for 15 years, my boat is the F/V TOMAHAWK, and the only action I can support is status quo for this amendment on the scup, black sea bass, and fluke quotas. New York cannot afford to lose more quota in these fisheries, it will be devastating to my livelihood, my family and my fishing community and the businesses that support us. The commercial industry always seems to get the short end of the stick, the regulators just take take take and no matter how replenished the fish stocks seem to get we never get anything back in return.
Sent from my iPhone

From: John German [lobsteratlocust@optonline.net](mailto:lobsteratlocust@optonline.net)
Sent: Monday, March 8, 2021 8:19 AM
To: Kiley Dancy
Cc: Brady, Bonnie
Subject: Quota Transfer
Chris Moore, Ph.D.
Executive Director Mid-Atlantic Fishery Management Council
Dear Mr. Moore:
I, John German, have been a full time commercial fisherman for mostly lobsters for 55 years.
Since Long Island Sound lobsters have been in decline for at least 15 years, sea bass has become an important resource for fishermen in this area. In fact, it is mostly what we survive on, especially in this year of low prices, pandemic closures, and poor markets.

Therefore, I find it extremely disturbing that we would lose some of our quota to another fishery sector. If anything, we would like more quota of black sea bass, not less.

Thank you for your interest in this subject and if I can be of any help in the future, please contact me.

Keep it in the channel,
John F. German
President, Long Island Sound Lobstermen Association
Name: James Riggs
Email: jr5743@gmail.com

## Check all that apply: Private Recreational Angler

## : James Riggs

Comments: Where i fish the pressure from commercial trawlers is constant....I think the way to rebuild fish stock is to establish a 1 mile sancturary from shore where it would be rod and reel only......this would allow the grasses and kelp to re-establish near shore provide much needed habitat and reduce the conflict between recreational and commercial fishermen. Using some of the fishing licence money to establish artificial reefs along the inshore waters this is much needed and would be a welcome sign of progress for both anglers and scuba divers.......Thank you Jim Riggs

From: FROELICH [mailto:dfroelich2@optonline.net]
Sent: Tuesday, March 9, 2021 12:46 PM
To: G2W < G2W@asmfc.org>
Subject: [External] Reallocation Amendment Comments

To Whom it May Concern:
I am writing regarding the Black Sea Bass, Scup and Summer Flounder Commercial/Recreational Reallocation Amendment.

I am a commercial fisherman. And I feel like what is being proposed is a quota grab and that is immoral and probably illegal. The recreational overages should not be the reason for taking from the commercial quota, they, the recreational sector, need to deal with their overages on their end not take from us.

Status quo got us this far. You cannot change the rules in the middle of the game. WE need to go back to the drawing board and either raise the TAC or TAL so we can all benefit, not just one side.
Just because the recreational guys can catch the fish it does not justify them landing them. It is not that way for the commercial guys. Commercial fishermen catch their limit then go home or catch something else.

Some recreational guys look at science and plans. Well, if you go back to the beginning you will see that the commercial fisherman sacrificed then for the future which is now, however, we are not benefiting from our sacrifices.
And only giving us 50 lbs of this and 100 lbs . of that is not an open fishery.
An analogy would be two people with a bank account. One person always putting money in the bank account and the other always taking out. It is not right.
I am not against recreational catching fish; they just need to work within their quota and be accountable like the commercial guys.
Either we be stewards of resources or continue fighting over it forever.
So, I support Status Quo.

Timothy Froelich
F/V Liberty
F/V Independence II

Name: Brian Loftes
Email: bkloftes@live.com
Check all that apply: Commercial Fishing Industry
: Brian Loftes
Comments: I fish for all three of these and I dont belive now is the time to take away from the commercial sector to give to recreational fisheries. Covid has had a determental inpack on fish prices and with the new president fuel prices are already going up and the profit margines are getting smaller all the time this is not a good plan and is just another attempt to reallocate fish away from the guys that feed the nation and need it the most I do not support this plan!

Thank You
Brian Loftes
Name: burl self
Email: $\underline{\text { b e self@yahoo.com }}$
Check all that apply: Private Recreational Angler
: burl self
Comments: limit commercial fishing. sport anglers generate far more income jobs and tax revenue

## Name: Vinny DelGozzo

## Email: vdelg@hotmail.com

Check all that apply: Private Recreational Angler, Charter/Headboat For-Hire Captain
: Vinny DelGozzo
Comments: Flounder: 1a-2; however I believe the fishery would be better suited if there was a slot system implemented. For example: 3 fish at 16"-22"

Scup: 1b-7; the fishery is strong
Black Sea Bass: 1c-7; the fishery is strong. I also think a slot limit ( 12 "-18") would be better and reduce the boat or per angler bag limit ( 5 per man?), limit the largest fish, have a smaller commercial season, and have the season open from 4/1-12/31.

Phase-In Alternatives: 1d-2
Annual Quota Transfer Alternatives: 2a; I just think it would cause too much confusion and too many problems to both keep track of and regulate. Most recreational anglers aren't paying close enough attention.

Transfer Cap Alternatives: 2c-1 (same thought process as Quota Transfer)
Framework/addendum provisions alternatives: 3a; all changes should be made with input from all stakeholders. No one group should own the right to regulate the allocations.

Name: Bob Severi
Email: ROBERT.SEVERI@GMAIL.COM
Check all that apply: Private Recreational Angler
: Bob Severi
Comments: My anecdotal experience from inshore boat fishing around Long Beach Island, NJ since 2002 indicates that almost all fisheries are under duress, e.g., Stripers, bluefish, weakfish, croakers, sea bass, blowfish, fluke, etc. I recall catching around 20 fluke on a trip and having one keeper. Now I'm lucky to catch any fluke.

The technical information is overwhelming. I defer to the expertise of subject matter experts to determine how to ensure that the fluke and other fisheries will thrive long term. You don't need to recreate the wheel. Experience tells us what has worked in the past, e.g., salmon in CA, cod in New England, Stripers on the East coast, etc. However, I suspect that kaehle hooks, which are frequently gut hookers increase the mortality of throwbacks. Perhaps these hooks should be banned. Should the use of circle hooks be encouraged?

## Name: Paul Olinski

## Email: pauloski1@msn.com

## Check all that apply: Private Recreational Angler

Comments: I have stopped fishing salt water as it is a waste of my time and money because the limits and sizes are prohibitive for a recreational angler. Also, having to keep breeder size fish and releasing the smaller males is counterproductive to the entire industry especially since the commercial fisher people get to keep the smaller fish and have a tremendous mortality rate from bycatch. This is unfair and will eventually destroy the summer flounder and black sea bass fisheries.

From: John Kowaleski [fvkimberlymarie@verizon.net](mailto:fvkimberlymarie@verizon.net)
Sent: Friday, March 12, 2021 7:39 PM
To: Kiley Dancy
Subject: Fluke/Scup/Sea Bass Allocation Amendment
just a point about fluke/ saleable fish in general.
a few years back we were fishing for fluke 4 days a week, the price was high and at least (the rod and reel )
fishing was pretty good, 50 lbs a day for 4 days a week.
then it was opened to seven days and automatically there were almost twice as many fluke going to market.
what did this do? It dropped the price to the lowest per pound price for years, meaning that for the same effort every day
we were only earning $1 / 2$ of the money, forcing everyone to fish all seven days in order to make the same money as the original 4 days.
more expenses, more time away from home, fishing in more dangerous conditions
If we extend this to the dragger fleet in the winter, the same thing happens the limit just was opened for sea bass to 2000 lbs . and the fluke to 4500 bls. these fish already are worth almost nothing, again forcing the boats to fish constantly for less return. I don't know the answer but there must be some way to keep the price up (smaller limits) (daily closures) and if someone wants to fish they can go to a different species. and, the fishermen will still be making the same money and also will be killing less fish.

Name: Roy Diehl

## Email: crab554@aol.com

Check all that apply: Commercial Fishing Industry
Comments: I'm for status quo as to allocations state by state
We need to stop the multi state on board at the same trips it's already killed the market price the combination of the pandemic and the flooding of the market with large trips of fluke make it counter productive

Name: John Hunnewell

## Email: KIFARU@HUGHES.NET

Check all that apply: Charter/Headboat For-Hire Captain
Comments: Last summer off Block Island, RI. Black Seabass numbers were out of control. They are decimating everything else. Higher limits are needed. Fluke were way down, Possibly because of lack of food because of the Seabass ? Keeper fluke were much less plentiful.

Name: Jeff Miller
Email: jeffsmiller2007@comcast.net
Check all that apply: Commercial Fishing Industry
: Jeff S Miller
Comments: Anymore cuts in NJ on fluke porgy and bass would further hamper any job growth in seafood business.

I have been selling seafood for 40 years barley hanging on. Please NO MORE CUTS
Name: Brent Loftes
Email: bloftes@hotmail.com
Check all that apply: Commercial Fishing Industry
: Brent Scott Loftes
Comments: Regarding changes to the Summer flounder scup and c bass. For the scup I would like to see $78 \%$ commercial and $22 \%$ recreational. The summer flounder $60 \%$ commercial and $40 \%$ recreational. And the Seabass first of all the quota should be doubled from what it is currently. I am not sure why the NMFS is so slow and so out of date with the amount of Black Sea Bass in the ocean but anyone paying attention has come to the same conclusion. $49 \%$ Commercial and $51 \%$ recreational. And as far as transferring quota to one sector or the other I don't want to see any quota transferred. In my opinion the commercial folks will be the ones getting screwed over only because this has been the way it has been for years now. That's my 2 cents hopefully NMFS will do the right thing.

On 3/14/21, 5:20 PM, "Pamela Reimer" [earwcr@optonline.net](mailto:earwcr@optonline.net) wrote:
Sir,
My name is William Reimer, I am the owner operator of a small Dragger here in New York. I don't have to tell you why we get such a small quota of fluke, Seabass , and scup, as it is, and to take any more, would put a serious hurt on my ability to pay my bills. This is the most expensive state in the union, but by cutting my overhead a little here and there, I am able to continue fishing, and because our state DEC has held the line pretty well the last few years. I really appreciated that. Now I understand the council is preposing to reallocate some commercial quota to the recreational side, I don't understand why. Where's the science? For what good reasons? How can the rec. side get more fish? We don't know what they take now. We don't know what they discard. As you know, I have nothing but documentation and accountability, and that goes all the way to the restaurant. We supply the people of the United States with a reasonable priced meal. I understand the rec. side pumps a lot of money into the economy, but that doesn't mean they need more fish.

I am asking you to stay with the " status quo option "
Sincerely, William C. Reimer

## Name: MARK HODGES

## Email: MLHODGES56@VERIZON.NET

Check all that apply: Commercial Fishing Industry

## : MARK HODGES

Comments: My name is Mark Hodges, commercial BSB trap fisherman from Va., my stance on the proposed $\%$ change to $55 \%$ to the rec. and $45 \%$ allocation for the comm. sector or any other $\%$ change of the federal BSB quota is status quo, no change. The proposed change is based on sketchy science at best. The rec. sector should not be rewarded for continuously going over their quota. The entire BSB quota could be allocated to the rec. sector and that would not solve the problem. There are simply too many rec. and party/ charter boats fishing for BSB. There is no accountability in the rec. sector. There should be a license system, with call in reporting and coastwide closures. There also need to be sever penalties for not reporting, fishing during closed seasons, and not adhering to bag limits. Implementing some of these suggestions would allow you to get a handle on the problem. Stealing quota from the comm. sector will not begin to solve the problem. Thanks for your time Mark

From: dannylester [dannylester@optonline.net](mailto:dannylester@optonline.net)
Sent: Monday, March 15, 2021 6:31 AM
To: Kiley Dancy
Subject: commercial quota
My name is Paul Lester and i am commercial fisherman on Long Island. I have fished for 30 years and we need the quota to stay as is ,status quo. If we lose quota it will not only hurt me but also my community in a whole. It is not fair to take from us to give to the recs, you should figure out a way to deal with their own discards as the magnuson act was not meant for this. Thank you Paul Lester

From: dannylester [dannylester@optonline.net](mailto:dannylester@optonline.net)
Sent: Monday, March 15, 2021 6:34 AM
To: Kiley Dancy
Subject: commercial quota
My name is Diane Lester and i am a wife and mother of a family of commercial fisherman on Long Island. I believe that we should keep the status quo for all on the agenda. It will hurt our livelihoods if you take quota away from us. Find another way to fix the recs problems with discards. Thank you Diane Lester

Name: Richard Jones

## Email: rjones7242@aol.com

Check all that apply: Commercial Fishing Industry
Comments: Leave the quotas the same for commercial fishing they are to small already Thanks Richard Jones

From: Mike Hall [mhall@towndock.com](mailto:mhall@towndock.com)
Sent: Monday, March 15, 2021 8:33 AM
To: Kiley Dancy
Cc: Almeida, Katie
Subject: fluke scup sea bass
I cannot support any change in allocation that reduces the commercial quota . recreational fishing is just that a hobby albeit an expensive one in a time of covit 19 there will be a lot more people fishing recreationally. We truly have no way of monitoring what they catch. To take away commercial quota that is regulated by state and federal laws and have a giveaway to a sector that cant and wont regulate themselves is worse. I cant believe we are even having this discussion. the status quo is what I recommend . thank you Michael Hall

Commercial advisor r.i.

## Name: Bill Foster

## Email: billfoster43@icloud.com

## Check all that apply: Private Recreational Angler, Commercial Fishing Industry

Comments: I prefer the no action option for the proposed reallocation of summer flounder. The commercial quota and recreational limit are two entirely different units. The RCL has a far greater degree of management uncertainty, less accountability, a greater percentage of waste, and higher probability of allowing over fishing.

Each of the other options would make the ACL even less compliant with the National Standards and Required Provisions of the M-S Act.

I oppose any in season transfers for two reasons:

1. There are no guidelines as to what would justify transfers.
2. For 32 years the excuse for not having a quota on recreational landings has been that the data is not good enough for in season adjustments. If it is not good enough to shut the fishery down, it certainly is not good enough for quota transfers.

My comments relative to the scup and sea bass fisheries would be basically the same.
Name: Jim Wright

## Email: jjwri@hotmail.com

Check all that apply: Private Recreational Angler
Comments: The commercial practices now wreck the environment and until the government actually enforces the laws with penalties that are painful,regulation is meaningless. I can't tell you how many times I've heard "we don't have the resources to actually stop the commercial cheats." Also poaching on a smaller scale has such weak penalties, the laws are no real deterrent.

I would like to see equipment confiscatied, names published and pictures posted,along with fines. Thanks, Jim Wright

From: Ronald D Recos [ronrecos@yahoo.com](mailto:ronrecos@yahoo.com)
Sent: Monday, March 15, 2021 9:44 AM
To: Kiley Dancy
Subject: Cod, et al.
I live in Central MA so only get to the Ocean once a year and, "deep Sea fishing" one day. Seems a crime that when fishing off of Cape COD I can't even catch 1 Cod but I CAN buy it at the grocery store. Perhaps lower the Commercial limits and allow 1 Cod a day for recreational fishing.

Just a thought, have a great day. Spring in 5 days!!!!
Ron Recos

From: nausett [nausett@comcast.net](mailto:nausett@comcast.net)
Sent: Monday, March 15, 2021 9:56 AM
To: Kiley Dancy
I'm in favor or REDUCING the number of days commercial fisherman can fish. there's less fish in the water now and less space at the tamps now and you want to increase the days thet have. sounds political to me.

From: Tom Bolinder < gofishalaska@gmail.com>
Sent: Monday, March 15, 2021 10:07 AM
To: Kiley Dancy
Subject: Sport fish
Please protect all of these game fish from over harvesting.
Tom Bolinder
241 Shore Rd
Buzzards Bay, Ma
From: Boston Fish [atownhomeservices@gmail.com](mailto:atownhomeservices@gmail.com)
Sent: Monday, March 15, 2021 10:21 AM
To: Kiley Dancy
Subject: Public comment on scup ,seabass,flounder
Hello I am a commercial fisherman from Boston I hold striped bass and tog endorsements . I am in full support of Changing the current fishery plan for sea bass and flounder. Personal being able to commercially fish for either would greatly increase my profits. When I started commercial fishing 12 years ago i couldn't buy a flounder_fluke permit. Already limited and black seabass where out of reach. Now due to warmer oceans both seems to be over abundant. I would love a chance at either fishery maybe an allocation to fisherman like me with confirmed landings on other inshore species.

Jeremy Furtado
29 Bow st Arkington ma 02474
ma commercial permit holder

Name: david gould

## Email: gouldbutter@yahoo.com

Check all that apply: Private Recreational Angler
Comments: 1a-1, 1b-4, 1c-1, 1d-3, 2b, 2c-1, 3b
I think there should be a fairer allocation between the commercial and private sector

Name: Arthur Showstead
Email: Daddieshow44@aol.com
Check all that apply: Private Recreational Angler
: Arthur Showstead
Comments: Hi....im in favor of changing the sea bass season to closing in October along with summer flounder date..there is a huge number of sea bass and I don't see any reason to close the season the 1st week in September for recreational anglers.

Ty for letting me to voice my opinion
A Showstead

Name: Robert Bamford
Email: bbamford1976@gmail.com
Check all that apply: Private Recreational Angler

## : Robert Bamford

Comments: What flounder? the Boston harbor is full of nothing but skates. Why is this issue never addressed? Pointless to even try. Why not fish pens off the islands to grow small fry.

Name: Stephen Altieri
Email: akrazykid2@aol.com
Check all that apply: Private Recreational Angler
: address illegal taking of undersized fish more/ fishing without a license
Comments: A larger part of the decline in fish numbers is directly related to those who fish without licenses. They have no regard for the laws and take any and all fish they catch. Every time a person is caught fishing without a license all their equipment should be confiscated and given to a youth camp. Advertise in foreign language newspapers (Spanish, Chinese, etc) that it is illegal ti fish without a license and also add that there are size restrictions for different fish species. Emphasize that if they
can be arrested and if here illegally they can be deported. We need to protect our resources before they are gone.

From: Loyd Chenoweth [bamboosavefish@gmail.com](mailto:bamboosavefish@gmail.com)
Sent: Monday, March 15, 2021 10:55 AM
To: Moore, Christopher; Kiley Dancy
Subject: FLOUNDER AMENDMENT
Prior to this reallocation flounder amendment:

Comply with the 2006 Magnuson Stevens Conservation \& Management Act (P.L. 109-479) That requires EVERY MARINE DISTRICT RECREATIONAL ANGLER TO REGISTER WITH THE FEDERAL GOVERNMENT!

From: Michael Roy [captainmike@reelcastcharters.com](mailto:captainmike@reelcastcharters.com)
Sent: Monday, March 15, 2021 11:03 AM
To: Kiley Dancy
Subject: Reallocation Comments
To Whom It May Concern:
As a full-time Connecticut charter boat fishing guide, I am writing to you today with concerns to the potential limit reductions of fish due to inaccurate MRIP data. MRIP data collection is heavily overestimating the number of fish that are being taken by recreational anglers and for-hire fishermen. There is an abundance of black sea bass, more than ever before, but we are being challenged with possible limit reductions. Bad data does equals bad policy. I believe in proper fishery management and practice catch and release to promote sustainability. We have a healthy population with various bottom species that include black sea bass and tautog. Reducing limits and shortening seasons will be very harmful to my business but more importantly the entire charter boat industry. I would like to continue to share my passion for the water with clients while promoting sustainable fishing. Categorizing the commercial sector with for-hire is not a sensible solution based on major differences between the two.

Best,
Captain Mike Roy
Reel Cast Charters
(203) 710-5116
www.reelcastcharters.com
Name: Art Deavellar
Email: artyde@gmail.com

Check all that apply: Private Recreational Angler
Comments: Do something about by catch that just goes overboard.Bring it to market
From: BECKWITH < pjmarita@optonline.net>
Sent: Monday, March 15, 2021 11:30 AM
To: Kiley Dancy
Subject: MAFMC/ASMFC Commercial and recreational allocation amendment
My name is Paul J Beckwith, I am a New York commercial fisherman, I have been fishing for 30 years.My boat is the Allison Lisa. The only action I can support for the joint MAFMC/ASMFC commercial and recreational allocation amendment for the scup, Seabass and fluke fisheries is to maintain status quo for all three species. New York cannot afford to lose more commercial quota. It will be devastating to me and my community and the businesses that support us. I also support starting a recreational reform amendment immediately so the recreational sector can help their fisheries turn discards into landings.

From: Al Schaffer [alfred.schaffer@icloud.com](mailto:alfred.schaffer@icloud.com)
Sent: Monday, March 15, 2021 11:36 AM
To: Kiley Dancy
Subject: Quota reallocation
My name is Al Schaffer,I am from NY an the owner an operator of two commercial fishing vessels. The Leatherneck lobster, conk an fish pot boat an Miss Alexa a Dragger. I have been commercially fishing since the 1970s an find this reallocation just another method to hinder commercial efforts. The only action I can support for the mafmc/asmfc commercial recreational allocation amendment for scup bsb an fluke is STATUS QUO for all three fisheries. The NY commercial Edsector cannot afford to loose more commercial quota of these fisheries

Somewhere in the planning of this the council's forgot the definition of commercial an recreational fishing. Feeding America making income an providing for our family an community vs grab a six pack go out for FUN on the weekend of an filet an release. The truth of the matter is the councils have absolutely no idea what the recreational sector takes but since the commercial sector is on a hard tac let's beat them up a little more. I also support starting a recreational reform amendment immediately so the recreational sector can help their fisheries turn discards into landings

Thank you Al Schaffer

From: Fishermaned [fishermaned2@gmail.com](mailto:fishermaned2@gmail.com)
Sent: Monday, March 15, 2021 1:19 PM
To: Kiley Dancy
Subject: "Fluke/Scup/Sea Bass Allocation Amendment"
Regarding the above referenced allocation amendment, I believe a catch based allocation most benefits the fisheries. A catch based allocation forces all sectors to more effectively manage their dead discards which truly waste the resource. To that end, I support allocation alternative 1a-1 for fluke, 1b-2 for scup, and 1c-1 for black sea bass.

Best regards, Ed Newell

Sent from my iPad
Please excuse typos
From: Mohawk Bolin [mohawkbolin@gmail.com](mailto:mohawkbolin@gmail.com)
Sent: Monday, March 15, 2021 1:22 PM
To: Kiley Dancy
Subject: Fluke/scup / seabass allocation
To Whom it may concern,
My comment is status quo. I am a Massachusetts commercial fisherman. The commercial sector endured a lot of pain with low quota to rebuild the BSB stock. We finally have a decent amount of fish to catch. We fill our quota every year, even during the pandemic. There is no justification for taking our quota now. If it isn't broken don't fix it.

Regards,
Mohawk Bolin
F/V Rock \& Roll
Sent from my iPhone

From: Michael Decker [mjdecker2005@yahoo.com](mailto:mjdecker2005@yahoo.com)
Sent: Monday, March 15, 2021 1:37 PM
To: Kiley Dancy
Subject: Scup flounder sea bass
My name is Michael Decker. I commercial fish out of New York on the F/V Braedon Michael. I ask that you keep status quo for all three stocks. It's hard enough to work with what we have. We are held fully accountable for all our landings with limits and closures and overages are deducted the next year. Rec sector has no actual counting methods, it's all formulas on some info to get a total number of fish harvested. I worked in the rec sector over 20 years ago and have seen the miss information entered in Vtr's. I'm not saying everyone but I have seen captain's over exaggerating there catches saying they caught so much fish they would even write it on the vtr but being on deck and know we caught maybe $20 \%$ of that number. There is no one checking that info nor is there anything in place to do so. In the commercial sector it is checked with dealer reports. I've also seen recreational fish surveyors sit in there cars for hours while countless boats come to the dock to then watch them get out and ask a small fraction of people what they caught. I can't see how now how we would think the numbers should different. For this reason I ask for status quo and a better way to figure out what is really happening out on the water in the recreational sector Sent from Yahoo Mail for iPhone

Name: Skip Fox
Email: sfox@rastellis.com
Check all that apply: Other (please describe below)

## : Distributor/Processer

Comments: Allocations need to be more for commercial in NJ If not other states will be fishing our fish

## Name: MALCOLM MCCLINTOCK

## Email: mjmcclintock3@gmail.com

Check all that apply: Commercial Fishing Industry
: MALCOLM J MCCLINTOCK
Comments: As commercial fishermen, we are accountable for every pound of fish that we catch. We submit trip reports that are then verified by the dealers. On the other hand, the recreational sector is working off numbers that are much more subjective. It doesn't seem like much of a platform to stand on to call for quota reallocation.

When I drafted my business plan years ago, it was based on the assumption that I would have the opportunity to catch a certain portion of the allocation. My business very much depends on that allocation.

The fish we catch eventually gets consumed by the public at large. People that might not have the ways and means to go and catch the fish for themselves. Less fish for us to catch means less fish for them to eat. That's a fact. The recreational fisherman can go out and catch their limit in the morning, and then actually go out and catch another limit, no questions asked. And although the recreational limits might seem small compared to historical limits, it's actually plenty to eat for you and your family, unless they are selling the fish to pay for their gas.

I believe the council must enact the "status quo" alternative, as any other alternative is just not fair to the commercial fishermen who have suffered enough in the rebuilding of the stocks.

Capt. Malcolm J McClintock<br>F/V Rhonda Denise

From: John Windels [jwindels3@gmail.com](mailto:jwindels3@gmail.com)
Sent: Monday, March 15, 2021 2:01 PM
To: Kiley Dancy
Subject: Comment on Amendment
Hello,
My name is John Windels. I've been a commercial fisherman out of Shinnecock, New York for 42 years. My current vessel is the Mary Rose. I need to comment on the Summer Flounder, Scup, Sea Bass Commercial/recreational allocation joint amendment. I can only support the Status quo option for this amendment

Commercial fishermen in New York have gotten the short end of the stick on these species for many years and we need every bit of quota that we can get. We provide food for the country and in my opinion that is more valuable than a recreational experience for a small percentage of the population. It doesn't make any sense at all to decrease commercial landings in order to increase recreational landings.

I do ,however support a recreational reform amendment that would allow the recreational sector to convert dead discards into landings. I believe the recreational size limits should be lowered for Summer Flounder especially so they will have far less dead discards.

Sincerely,
John Windels
Owner/Operator
F/V Mary Rose

Name: Ryan Labriole
Email: ryanlabriole152@yahoo.com
Check all that apply: Commercial Fishing Industry
Comments: I'd like to keep things status quo

Name: Jason Sawyer
Email: jws62371@live.com
Check all that apply: Commercial Fishing Industry
Comments: Status quo

## Name: Vincent Fogliano

## Email: fairfish1@verizon.net

## Check all that apply:

Comments: Status Quo
Name: Neil Delanoy
Email: ndelanoy@aol.com
Check all that apply: Charter/Headboat For-Hire Captain, Other (please describe below)

## : Neil Delanoy

Comments: Thank you for this opportunity to comment. I am Neil Delanoy, the Executive Director of the Captree Boatmen's Association. We are the largest for-hire fleet in New York state, taking over 300,000 anglers out annually, fishing mostly for summer flounder, scup and black sea bass. I feel that the reexamination of commercial/recreational allocations is long over due. MRIP data now shows that allocation percentages were always flawed and going forward should be based on the best available data. Clearly the more recent data, probably 2 to 10 years should be used to determine allocation percentages. There for I support the following options:

Summer flounder 1a-7: 41\% commercial, 59\% recreational 2014-2018 base years
Scup 1b-7: 50\% commercial, 50\% recreational 2018-2019 base years
Black sea bass 1c-7: 22\% commercial, 78\% recreational 2009-2018 and 2014-2018 base years
Phase-in 1d-1: No phase-in
Quota transfer 2b: Allow quota transfers
Quota transfer cap 2c-4: Maximum 15\% of the ABC
Framework addendum 3b: Allow changes through Framework actions/addenda
Respectfully Submitted,
Neil Delanoy
Executive Director
Captree Boatmen's Association
Name: William Morrland
Email: willjosephmoreland@gmail.com
Check all that apply: Commercial Fishing Industry
Comments: I am a commercial fisherman and I support no action. Status quo.

## Name: Don Jepson

## Email: donjepson@yahoo.com

Check all that apply: Private Recreational Angler
Comments: Please change the rules so that harbormasters can enforce recreational fishing rules. Year after year here in Wareham violators keep taking illegal size and quantity of Black Sea Bass. The Massachusetts Environmental Police do not have enough people to enforce the restrictions adequately and yet the higher ups in the Environmental Police protect their turf. We all know that a collaborative effort between the local harbormasters' people and the Environmental Police would put an end to this problem. We also need to convince the judges that the perpetrators should be given hefty fines and/or have their boats and tackle confiscated. Thank you.

From: Kammy Ball[happ2@optonline.net](mailto:happ2@optonline.net)
Sent: Monday, March 15, 2021 5:56 PM
To: Kiley Dancy
Subject: comm/rec allocation
My name is Don Ball owner operator of F/V Kammy B. Montauk NY I have been a commercial fisherman for 50 years and cannot believe that you would give important resource such a food away to the recreational fisherman. You need to realize that it is far more important for people to have food accessible to them to eat. We supply food for the millions of tax payers who subsidize NOAA. You cannot take it away with out asking millions of other people. This is an important resource and needs to be thoughtfully decided. The only option that I see is to remain status Quo. Keep it as it is. Otherwise it's not only devastating to me and my family but to all the millions of people we feed. The recreational sector will be fine as is. We shouldn't have to worry about them. They have never had a hard tact quota. They will never be satisfied. There is no reason to give them our commercial quota. Again, coming from a long time commercial fisherman, please leave the amendment at status quo. If not, shelve the whole idea.

## Thank you Donald Ball F/V Kammy B Montauk NY

From: Andrew Rigby [rigbyandrewd@gmail.com](mailto:rigbyandrewd@gmail.com)
Sent: Monday, March 15, 2021 6:24 PM
To: Kiley Dancy
Subject: Commercial Fishing Quota
"My name is Andrew Rigby, I am a commercial fisherman, I have been a commercial fishermen for 25 years, the only action I can support for the joint MAFMC/ASMFC commercial recreational allocation amendment for the scup, black sea bass, and fluke fisheries is to maintain status quo for all three fisheries. New York cannot afford to lose more commercial quota in these fisheries. It will be devastating to me and my fishing community and the businesses that support us. Thank you,

## Andrew Rigby <br> 631 252-7939

Name: Brian Frawley

## Email: bfgonfishin@aol.com

Check all that apply: Charter/Headboat For-Hire Captain, Commercial Fishing Industry
Comments: Please help commercial fishing industries. We all Need to feed our families.

Name: troy Sawyer
Email: tsawyer9849@aol.com
Check all that apply: Commercial Fishing Industry
: troy R Sawyer
Comments: i would like things to stay the same.As i fish for a living, not sport.
Name: Jason Power
Email: powerjason17@gmail.com
Check all that apply: Commercial Fishing Industry
Comments: Status quo

Name: Stephen Roebuck

## Email: roebucksj@verizon.net

Check all that apply: Commercial Fishing Industry
Comments: The only reason we have state allocation is from commercial landings. We absolutely should not give anymore to recreational. I think it's fine that everyone can go out and catch a fish or two and have it for dinner, but if it destroys our economy by giving away all of our quota to people that haven't risked their lives and spent hundreds of thousands of dollars collecting these fish for the landings, what right do they have to it?

Name: Mike Coppa
Email: coppamike@hotmail.com
Check all that apply: Commercial Fishing Industry
: Mike Coppa
Comments: Status Quo

Name: Sheryl Coppa
Email: coppamike@hotmail.com
Check all that apply: Commercial Fishing Industry
: Sheryl Coppa
Comments: Status Quo

Name: Anjeleen Coppa
Email: coppamike@hotmail.com
Check all that apply: Commercial Fishing Industry
Comments: Status Quo
From: Andrew Dangelo [maridee2@gmail.com](mailto:maridee2@gmail.com)
Sent: Monday, March 15, 2021 10:06 PM
To: Kiley Dancy
Subject: Fluke/Scup/Sea Bass Allocation Amendment
I am Andy Dangelo owner operator of $\mathrm{f} / \mathrm{v}$ Maridee II a charter boat out of Point Judith RI. I am also a member of the RI Party and Charterboat Association. I would like to say I am in favor of everything that Rick Bellavance, our president, stated in his letter to the mafmc.
Thank you
Capt. Andy Dangelo

Name: Nick Wilbur
Email: nick0wilbur@gmail.com
Check all that apply: Commercial Fishing Industry
: Nick Wilbur
Comments: I prefer keeping allocation levels equal for rectreational sector and commercial sector.

## Name: John Davi

## Email: captjohn63@yahoo.com

Check all that apply: Commercial Fishing Industry
Comments: Dear Councilors,
As a representative of the commercial fishermen in New York, I want to make it clear that commercial fishermen in New York are fully opposed to the proposal to reallocate quota percentages between the recreation and commercial fisheries for summer flounder, scup, and black sea bass. Our firm position is to continue with the status quo.

Furthermore, it is important to realize that the commercial fishermen are held to a different standard, and have been a victim of injustice for the past several decades. When over-harvesting has been reported, commercial fishermen have been responsible citizens and have observed all regulations regarding size, quota, vessel trip reports, monitoring, and paybacks, as well as suffered the hardships of limited licensing.

It is apparent that the problem of over-harvesting exists within the recreation sector. Recreational fishermen have been abusing and manipulating the management process without any consequences, and shirking their responsibilities by over-harvesting, implementing regional quotas, and lacking a limit on recreation participation, which of course, is unsustainable. Unfortunately, the managers have clearly taken their eye off the ball and do not have a justifiable plan to correct this problem. Instead, they chose to once again squeeze the commercial fishermen by proposing a plan for reallocation of quota. This is insulting and degrading to all commercial fishermen.

It is time to "think outside the box". It may take some number crunching, and some bold reductions in the recreation sector, but the solution has to come from the root of the problem. One option would be to consider odd and even days of fishing for the recreation population, an easy fix when a fisher applies for his permit or registry. It is time for fishery managers to come up with a real plan that addresses the real problem - the recreation sector and recreational over-harvesting- otherwise the cycle will continue.

The solution should not be to penalize commercial fishermen once again.
Thank you,
John Davi
New York State Marine Resource Advisory Council Member

Name: Frank Torbey

## Email: ftorbey@comcast.net

Check all that apply: Private Recreational Angler
Comments: I am for the following:
1a-3
1a-7
1b-4
1b-7
1c-3
1c-7
We need to recognize the value and importance of the recreational angling. Increasing commercial quotas is not in the best interest of the overall economic value of an improvement in recreational angling. The amount of commercial draggers is ruining the summer flounder recreational fishing.

From: Edward Barrett [fvphoenix@gmail.com](mailto:fvphoenix@gmail.com)
Sent: Tuesday, March 16, 2021 10:51 AM
To: Kiley Dancy
Subject: Fluke quota
To Whom It May Concern,
We, the following, are commercial fishermen who fish for fluke,scup and sea bass in Massachusetts state waters.We would urge the MAFMC to only support the status quo choice for the admendment regarding changing the fluke,sea bass and scup quotas.Any changes to these quotas would endanger our business. Thank you for your consideration.

Regards,
Edward Barrett Tim Barrett. Paul Unangst. Phil Brazao
FV Sirius. FV Odessa. FV Destiny. FV Sarah Ann
Andrew Mannix. Nathan Davis John J Good
FV Lady Jane. FV Sarah Belle. FV Alosa

Name: Paul Farnham

## Email: paulfarnham1@gmail.com

Check all that apply: Commercial Fishing Industry
Comments: Paul Farnham 03/16/2021
Montauk Fish Dock Inc
PO Box 2048
478 West Lake Dr.
Montauk NY 11954
Subject; Summer Flounder, Scup, Black Sea Bass Commercial/Recreational Allocation Amendment
To Chris Moore, Ph.d Executive Director
My name is Paul Farnham. Thank you for allowing me to comment on this Amendment proposal.

I have owned and operated the Montauk Fish Dock since 1988. Myself and my employees provide unloading and packing and trucking services for the commercial fishing fleet of Montauk. Any loss of quota allocation from the Summer Flounder, Scup , Black Sea Bass fisheries would negatively affect my business and my employees livelihood.The only action that I can support is to maintain status quo for these fisheries.
I support ;
Summer Flounder Allocation Alternative 1a-4 No action/status quo
Scup Allocation Alternative 1b-1 No action/status quo
Black Sea Bass Allocation Alternative 1c-4 No action/status quo
Allocation Change Phase-In 1d-1 No phase-in
Annual Quota Transfer Alternative 2a no action
Framework/addendum provision alternative 3a No action/status quo
Thank you
Paul Farnham Pres
Montauk Fish Dock Inc.

From: wreelfun@gmail.com
Sent: Tuesday, March 16, 2021 1:00 PM
To: Kiley Dancy
Cc: chris.batsavage@ncdenr.gav
Subject: Summer Flounder, Scup and Sea Bass Sector Allocations
I reviewed the presentation of the proposed changes to the sector allocations for Summer Flounder, Scup and Sea Bass. I am a recreational fisherman in North Carolina. I have the following suggestions.
On Summer Flounder I recommend !a. 1 alternative. Although we in North Carolina have very restrictive regulations on all flounders due to overfishing of southern flounder, my hope is that the opportunity for recreational fishermen to harvest summer flounder will open. This alternative seems to balance the allocations fairly across both sectors.
On scup, I have a recommendation for alternative 1 b.5. I am not a scup fisherman and my recommendation should be taken in that vein.
On sea bass, I recommend 1c.2. This would again seem to fairly represent the most current situation regarding fishing activity. I would like to ask the MAFMC to consider why we have different size limits for the same fish in different sectors. It seems to me that should be consistent. I would recommend a 3 year phase in of these changes which is alternative 3 b . I hope this is helpful and thank you for the opportunity to comment.

Bill Mandulak.
Name: jeffrey kaminsky

## Email: jekamins@optonline.net

Check all that apply: Commercial Fishing Industry
: jeffrey kaminsky
Comments: as a commercial fisherman from new york i support no action/ status quo for each species. new york is suffering from low commercial quotas since they were first distributed. Gordin Colvin and John Mason are to blame for short changing new york's commercial fisherman at that time. ask around you'll find that to be true.

From: EDWARD YATES < HUNTER.FISHING@hotmail.com>
Sent: Tuesday, March 16, 2021 2:56 PM
To: Kiley Dancy
Subject: Summer Flounder, Scup, and Black Seabass - Commercial/Recreational Allocation Amendment

Good Afternoon Kiley,
My name is Captain Eddie Yates from F/V Susan Hudson in Barnegat Light NJ. I hope to see more allocation of poundage set forth in this amendment. The for-hire section and recreational fishery has paid a severe price over the past decade with reductions in black seabass. I am also president of United Boatman of New Jersey which represents larger capacity for higher vessels., anywhere from ten to one hundred people. Which by the way is very difficult to fill a for hire boat with such small bag limits and short seasons in the state of New Jersey. I am very disappointed with the council and the commission for keeping these quotas for TAL landings so low for both commercial and recreational fisheries. With a fishery that is two and a half times rebuild, your numbers not mine, and not to raise the bar higher in my opinion is wrong. You know and I know that the fishery stocks are in excellent shape. I can take you in New Jersey from structures in forty feet of water to one hundred and forty feet of water, twenty miles either side of my inlet and catch black seabass when in season. Our seasons need to be longer; May 15 th is no longer expectable as a starting time in my opinion. I hope in this 2021 session amendment that this can be rectified for the 2022 season. Between over restricted regulations, size and bag limits for the past ten years has pretty much destroyed the black seabass fishery from New Jersey North. I know I speak for a lot of my membership, if not all, who participate in that fishery. We have educated our fishermen to accept our restrictive bag and size limits, but more days need to be added in our season. If these regulations are going to continue, there might only be a few of us still doing this in the 2023 season, and if things are not going to change, at least let us pick our days at sea since we now are on electronic reporting on a daily basis. For an example, in New Jersey I have a 38 -day season for black seabass in wave 3 from May 15 to June 22 and then we are closed. After being previously closed for four and a half months. Anymore, this is getting old and extreme and needs to be change. At least let me pick my days as we lose $4-7$ days in that time period due to weather. I am sure this can be rectified with a substantial increase in the TAL. We need more fish. It is time.

Thank you for your time in listening to this concern.
Respectfully, Captain Eddie Yates 609-713-6918

## Name: Brad Ries

## Email: captbrad@optonline.net

Check all that apply: Charter/Headboat For-Hire Captain
: Black Sea Bass and Summer Flounder
Comments: Hello, here in NY we are constantly be hounded by ridiculous regulations in an industry that is being over regulated.

Summer Flounder, an industry staple for most in NY has become a something of a joke. $4 @ 19$ " is very hard when commercial rod and reel guys fishing a boats length away from you is keeping "smaller fish" while those onboard a private or for hire vessel shake their heads as to why they can but we can't keep those size fish.

To be fair, NY should see a $3 @ 18$ " as a minimum to allow the angler to at least go home with something for dinner. If $10 \%$ is figured into the equation as dead loss than why not just keep for table fair. Makes no sense to throw back an inch smaller fish that may die rather than keep it to enjoy.

We have not seen a change in the summer Fluke regulations in NY and it's time for a change... We pay for a "Charter Permit" what's that really good for? More Porgies??? Those for hire should have a different size limit, or even a slot maybe $2 @ 18$ and 2 @ 19 or greater. Something has to change...

Black Sea Bass..... again the numbers don't lie and we here in NY with a season that starts very late and a bag limit of only $3 @ 15 "$ is a joke. Should be $5 @ 13$ till fall. The biomass is abundant and to see boats NOT from NY fishing just outside NY waters land more and smaller fish than we are when our season is still closed basically cherry picking our waters is a joke....

A marine industry being run by those who fish behind a mahogany desk or in some "conference room or a Zoom platform isn't going to better the fishery. Have the right people who are on the water, understanding what's really happening within the fisheries is how to build and maintain for all. Not by people being backed by local and state government officials who like seeing their media points or social platforms go up a few points.

Something has to change or you'll see more abusing the current regulations by not abiding by them, which isn't good for anyone...

Thanks You, Capt Brad Ries
Name: Tom Heinlein
Email: tomwetnwild2@aol.com
Check all that apply: Charter/Headboat For-Hire Captain
Comments: I feel further restrictions will only hurt the industry..Biomass estimates are tainted, no real data has been established.only guesswork.
Further restrictions will only put more people out of Business adding to Further economic disaster.. I was forced to close my Business to to lack of customers due to stringent Regulations that have no concrete evidence..

From: Carl[farm08753@aol.com](mailto:farm08753@aol.com)
Sent: Tuesday, March 16, 2021 3:56 PM
To: Kiley Dancy
Subject: Fluke/Scup/Sea Bass Allocation Amendment
Dear kdancy
RECOMMENDATION

1) CHANGE IN REALLOCATION STATUS QUO
2) TRANSFERS
3) FUTURE AMENDMENT

## NO TRANSFERS

REQUIRE AMENDMENT

Comments: We see that this change will reduce the harvest of our fresh fish. With that we usually see price increases. That is unacceptable. How many people will be put out of work?

Thank you

Lance Blake
Richard Smith
Lucile Smith
Emil Kotschessa
Justine Kotschessa
Floyd Murray

Name: Chris Winkler
Email: Ccwink60@gmail.com
Check all that apply: Commercial Fishing Industry
: Chris Winkler
Comments: To whom may be concerned, I have been a commercial fisherman for 45 years I implore you to leave the allocation of commercial quota as is. Let us not forget that the recreation sector has quota would be due to our landings since landings were documented. Our survival is on a very fine line to even exist. Any more taken from us could mean it's no longer a viable business to stay in Thank you Capt. Chris Winkler

Name: Eric Lundvall

## Email: ericlarslundvall@gmail.com

Check all that apply: Commercial Fishing Industry
Comments: Status quo. There should not be any reallocation of quota for any species to the recreational secotor.
The recreational sector continues to exceed their allocation year after year because of lack of real reporting data and obseever coverage.
The recreational sector needs to be held to the same accountability measures as the commercial sector. Real time reporting, observer coverage, dockside monitoring, VMS, ect.in other words The Same Accountability measures as the Commercial sector.
There needs to be a complete recreational sector reform.
Sincerely,
Eric Lundvall
F/V Rayna \& Kerstin
Point Judith, RI

Name: Vincent Carillo
Email: kahunafish2@aol.com
Check all that apply: Commercial Fishing Industry
: Vincent Carillo
Comments: AS A COMERCIAL FISHERMAN FOR ALMOST 40 YEARS, I CANNOT BELIEVE WE ARE EVEN TALKING ABOUT REALLOCATION OF OUR COMMERCIAL QUOTA !!
WE HAVE MADE MORE SACRIFICES IN THIS FISHERY THAN ANY OTHER MANAGED SPECIES.
WE MUST REMAIN AT STATUS QUO, NO CHANGING OF COMMERCIAL QUOTA!!
START THE RECREATIONAL REFORM INITIATIVE NOW!
THANK YOU
VINCENT CARILLO
F/V NEMESIS
MONTAUK,NY
NEW BEDFORD,MA

Name: Mitchell Fulcher

## Email: mjfulcher7266@gmail.com

## Check all that apply:

: Mitchell Fulcher
Comments: To whom ever came up with this brilliant proposition, Websters definition of recreation=Activity done for enjoyment when one is not working! So basically these proposals are asking to take quota away from an industry that harvests the mentioned species to not only provide for their families but also supply an important food source to the nation and give it to people who want it for a hobby. I hope whoever makes the end decision realizes that a major difference between the two sectors is entry; commercial is limited and recreational is unlimited. It is a very slippery slope when more quota is given to a group with unlimited entry, especially since they overharvest most years as it is. Seems like a certain recipe for disaster for the fish stocks which you are supposed to keep sustainable.Commercial harvesters are held accountable for almost every fish landed via VTR's/log books while for the other sector it's basically a calculated guess at best. I would almost guarantee some form of stock collapse in the near future if ANY proposal other than status quo is chosen by the councils.Knowing what could potentially happen to these fish stocks otherwise,I believe the correct choice is status quo for all 3: Summer Flounder 1A-4, BSB 1C-4 and Scup 1B-1. Please do the right thing.

Truly yours, Mitchell Fulcher
Name: Aaron Williams

## Email: tradfisheries@gmail.com

Check all that apply: Commercial Fishing Industry
Comments: I will like to have it remain status quo. The recreational community needs to be held more accountable for what's actually coming out of the ocean. As a commercial fisherman we are tracked by satellite, tow by tow log book entries, daily trip reports, have to carry observers, our catches are inspected by federal agents, inspected by local environmental agencies, etc...every ounce of fish landed is accounted for and if it's not we face fines and permit sanctions. When the recreational community can do the same then they can ask for more quota.

Name: james Lovgren
Email: jlovgren3@gmail.com
Check all that apply: Commercial Fishing Industry
: Fisherman's Dock Co-operative Inc
Comments: The members of the Fisherman's Dock Co-op support the Status Quo option in regard to the commercial/ recreational summer flounder reallocation amendment. This resource steal does nothing to address the ever present over harvesting of quota by the recreational industry. To reward one sector for their continued over harvesting of quota because of the inability to accurately count their catch, by taking quota of a sector that has remained within their legal catch due to the ease of tracking their landings, is simply wrong. The commercial industry could have caught twice what we are allowed, even more, but that does no one any good, even the consumer wouldn't see much of a price reduction by the time the fish hits the plate.

The recreational industry has been at this game for almost 30 years now, trying to increase their quota at the American seafood consumers expense. Now some in management want to use the new refined MRIP data to claim that red is blue, and the recreational industry caught more fish then originally believed. I think the commercial industry can say the same. Changes in percentages may not look like much, but they amount to millions of dollars annually to the sector that loses access to some of their long established quota. With the Covid crisis temporarily hampering the industry, now is not the time to further attack the commercial industry with a blatant resource steal. We fully support the comments of GSSA in regard to this amendment, thanks,Jim

From: KAMINSKY [jkamins2@optonline.net](mailto:jkamins2@optonline.net)
Sent: Tuesday, March 16, 2021 7:46 PM
To: Kiley Dancy
Subject: MAFMC/ASMFC commercial recreational allocation amendmen
My name is Cynthia Kaminsky. I am a licensed New York commercial fisherwoman, I have been fishing commercially since 1964. I own the Fishing Vessel "Catch This" and a fish packing dock in Mattituck. I would support maintaining status quo in the joint MAFMC/ASMFC commercial recreational allocation amendment for the scup, black sea bass, and fluke fisheries. New York cannot afford to lose more commercial quota in these fisheries. That would be taking from quotas that feed people who cannot or do not wish to go and catch their own.

Cynthia Kaminsky

Name: Earl Gwin

## Email: sonnygwin@verizon.net

Check all that apply: Commercial Fishing Industry
: Earl R Gwin
Comments: Fluke/Scup/Sea Bass Allocation Amendment Public comment -
Recreational reform needs to take place prior to any changes in reallocation from the commercial fluke/scup/sea bass fishery. I believe the allocation amendment should be status quo in all alternatives as recreational reform needs to be addressed.

The following comment was submitted by 7 individuals: Howard Bogan, Alexa Bogan, Nicole Bogan, Erik Bogan, Dean Malanga, Vanessa Manetta, and Robert Manetta.

Name: Howard Bogan
Email: whbogan@aol.com
Check all that apply: Private Recreational Angler, Charter/Headboat For-Hire Captain, Commercial Fishing Industry

Comments: The Council should move ahead with the Commercial/Recreational Allocation Amendment.

Preferred alternatives for catch-based and landings-based allocations are as follows:
Summer Flounder
1a-3 or 1b-6
Scup
1b-3 or 1b-5
Black Sea Bass
$1 \mathrm{c}-1$ or 1c-6
Phase in:
1d-1
Annual Quota Transfer
2b
Annual Quota Transfer Cap Alternative
2b
Framework/addendum provision alternative
3b

## Name: David Aripotch

## Email: captainhappy@optonline.net

Check all that apply: Commercial Fishing Industry
Comments: To the MAFMC and the ASMFC
My name is Dave Aripotch, I own the FV Cailtin \& Mairead, a commercial trawler out of Montauk NY.

I've been a commercial fisherman flor almost all of my life, before the regulations began, I began in 1973. Then when they were put in place in the 90 's, I was promised by the regulators, by members of the MAFMC, that I was going to be made whole again at some point for the sacrifices of the cuts in quota that we took.

I was told then that "giving up the fish was an investment," for me, that I would "definitely get it back." MAFMC council members promised that I was "going to be made whole," in terms of the cuts that we, the commercial fishermen, suffered for years when we were told that the stocks were considered overfished. All during that tine we had strict quotas, while the recreational sector had "targets," but no hard TACs. Never.

At this point in life I've given up expecting more from the council, but I sure as hell don't feel that the council should be taking fish away from me when the recreational sector has gone unchecked and there is no accountability for the recreational sector whatsoever. I'm in disbelief.

Decades of going over, sometimes by 200-300\%, and when that happened and it affected the Spawning Stock Biomass so much that cuts occurred, we as comm guys got hit twice. First by cuts to the overall quota because they went over by so much, threatening the SSB, and then the insult to the injury, a second round of cuts because the overage had to come from us too, even though we stayed within our quotas. We were the only ones that were held accountable.

I provide fish to the public for food in exchange for income. To further penalize the commercial industry after we have to report in triplicate and pay a pound for pound payback on any species, that's unconscionable that the council would even think of taking more from us, taking more from me and my commercial fishing community and hundreds of other commercial fishing communities along the coast, especially during the Covid crisis when are prices are so depressed to begin with and have been for the last year.

What about consumers who can't access the ocean can't afford to go buy the gear and take a trip to the beach or get on a boat? Consumers who still want to eat fresh wild-harvested local fish? Your choice to take fish away from the commercial sector will affect the cost of local fish and by a lack of local product that fact could cause more restaurants to turn to imports and farmed fish at a fraction of the cost. Which then will drive the price of local wild sustainably caught seafood down even further.

Re the comment I have heard in the public hearings that it would be okay to give away our scup quota because "the commercial guys don't catch it," my response to the council is to make some meaningful regulation changes so we can catch it, we are strictly adhering to the regs, if they made the trip or daily quotas larger year round, transferring some from winter to summer and larger quota in the fall, or open it completely, we would catch the quota. It is only because we have been limited by smaller trip limits in the summer and fall that we have not caught our quota The market needs a steady supply of fish. The best prices we see is when in the winter with 50000 pound trips,

The recreational sector do not need my fish. They need their own recreational reform amendment where they can figure out how to be accountable for what they catch, pound for pound, but also figure out how to turn their discards into landings.

Because otherwise it will never be enough, the recs will always want and need more to cover their discards, until there is no commercial quota left. More dead discards in BSB than we catch throughout the commercial sector acc to the latest MRIP numbers? If 3.5 mil is their portion of discards that are dead, that means they are discarding around 21 million pounds of bsb overall based on $15 \%$ mortality? Where it the accountability? How is that okay?

I also think there needs to be two sets of regulations on the rec end, one for the traditional rec fisherman and the other for the charter boats/head boat for-hire boat fishery. You need to split them into two sectors. For hire fleet does have some regulations and they fill out logbooks but the rest of the recreational sector doesn't. They have some accountability, and they suffer the most when the seasons are cut short.

The council needs to stick with status quo on the summer flounder, scup and black sea bass fisheries and they need to find someway to control the recreational fishery so the overages stop. Please don't take from us just because you can't make them accountable. Find a way to make them accountable.

Sincerely
Dave Aripotch
FV Caitlin \& Mairead
P.O. Box 1036

Montauk, NY 11954

Even though the total allowable catch (TAC) for each species was based on science; and the percentages of the TAC allocated to each fishing sector was established equitably in the FMP of each species as required by Federal Law 16 USC 1853 (a)(14)', the way that the Summer Flounder and Black Sea Bass fisheries are managed is far from the "fair and equitable" required by law. A double standard in implementation has caused noncompliance with the law because the quota system adopted by the Council was subverted .

For years the commercial sector was constrained to a quota with no rollover for under-harvest and a requirement to payback any over-harvest; whereas the recreational sector's quota was morphed (by the Council) to be a target. Although under-harvest by either sector was treated in a similar fashion (i.e. no rollover), over-harvest was not. Over-harvest by the commercial sector required payback, whereas over-harvest by the recreational sector was ignored. This resulted in actual percentages of each sectors' harvest to be askew from the percentages established in the FMPs.

In many years, the recreational overharvest caused a total harvest that exceeded the TAC. This effected the allocation process by reducing the biomass and thus the future TAC upon which future allocations and quotas/"targets" were based.

The recreational sector was minimally affected by lowered allocations because it was NEVER REQUIRED to compensate for its overharvest whereas payback was required of the commercial sector. These differing rules are a glaring case of a double standard. They were created by a council that exercised its ability to create rules by majority decision, with no external legal review to call Foul. And, since no one in the commercial community had the time or funds to challenge the MAFMC, the double standard rules persisted.

The purpose of this letter is to point out what everybody knows: The double standard rules, have allowed the recreational sector to steal from the common resource.

These double standard rules have been in place for far too long and should to be corrected by taking these three actions.

- Require the recreational sector to make restitution for past overharvest, by having it pay back all of their past overages.
- Correct the rules by enacting the same payback (AND rollover) rules on each sector.
- Any proposed re-calculation of equitable ${ }^{i i}$ allocations must be based on something other than past landings.


## Walter Chew

The Old Citherman .....>)1)">
i 16 USC 1853. Contents of fishery management plans
(a) REQUIRED PROVISIONS Any fishery management plan which is prepared by any Council, or by the Secretary, with respect to any fishery, shall-
(14) "to the extent that rebuilding plans or other conservation and management measures which reduce the overall harvest in a fishery are necessary, allocate, taking into consideration the economic impact of the harvest restrictions or recovery benefits on the fishery participants in each sector, any harvest restrictions or recovery benefits fairly and equitably among the commercial, recreational, and charter fishing sectors in the fishery . .....
$\qquad$
${ }^{i i}$ To be fair and equitable in allocation is NOT to:

- base allocation on votes of the Council, Or
- base allocation on a fishing sector's historic landings.

To be fair and equitable is to be impartial and do what Federal law 16 USC 1853 (a)(14) says.
In the context of this law, the "fishery participants" aren't simply those persons on the water harvesting resources. The ultimate participants in each sector are the consumers of the resources harvested by that sector. I.e. The total is the entire U.S. population. An equitable distribution of U.S. fishery resources would therefore be based on the relative percentage of U.S. population served by each sector of the fishery.

Of the total U.S. population ( 308 million), there are 34.5 million that consume the seafood harvested by all recreational fishermen ( 11 M recreational and charter fishermen $\times 3.14$ average family size $=34.5 \mathrm{M}$ ). And there are 273.5 million others that consume the seafood harvested by commercial fishermen. Therefore based on the consumers that rely on the respective sectors, to comply with "allocate......restrictions or recovery benefits on the fishery participants in each sector..." [16 UsC 1852(a)(14)], , a fair and equitable distribution of the nation's fishery resources would allocate a ratio of 34.5 to 273.5. I.e. 11.2\% recreational; 88.8\% commercial.

However, since 16 USC 1852(a)(14) says: "taking into consideration the economic impact ..."; and since 49.8 Billion is spent by recreational fishermen, and 102 Billion is spent by consumers of commercially harvested seafood in the U.S.; the ratio should be 49.8 to 102.0. I.e. $\mathbf{3 2 . 8 \%}$ recreational; $\mathbf{6 7 . 2}$ commercial.

Just as the number of bus drivers vs. the number of private auto drivers has NOTHING to do with who gets to use the resource of HOV lanes (23 USC 166 et. seq.), the number of recreational fishermen vs. the number of commercial fishermen should have NOTHING to do with the allocation of the nation's fishery resources. The allocation debate should revolve around what Federal Law 16 USC 1852(a)(14) requires. Is it: the number of participants(consumers) accessing the common resource via each sector, or is it the economic impact generated by each sector from harvest to consumption? ONLY these two parameters should be considered when making allocations.

A legitimate debate would be: How much weight should each of these parameters have in making allocation percentages of Federal fishery resources? All other debates/arguments should be summarily disregarded because they are red herrings (....<"((<<...) proposed by some group that selfishly want a bigger share of the TAC pie.

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From: Tony Saldutti <tsaldutti99@gmail.com>
Sent: Monday, March 1, 2021 1:51 PM
To: Kiley Dancy
Cc: Seeley, Matthew
Subject: Bluefish Ammendment Feedback
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Thank you for allowing a surf fisherman's perspective to drive a better solution for the fish.

Your comments on quota transferring should be a red flag for us. It either tells us the allocation was wrong in the first place, or the fish are in greater trouble that we think, and greater restrictions are an order.

The categorization of boats, whether privately owned or for hire, in the same category as surf fisherman is unfair for the surf fishermen. The boats are hunting the huge schools of fish just like the commercial boats.

It sounds far fetched, but please consider no more new boats and a gradual boat reduction over time.

The surf fisherman are not the problem here. It is the predatory nature of all boats and the technology to find the fish in large numbers that I believe to be the problem.

The beach replenishment processes going on up and down the coast are decimating the habitat for the fish as well. The bait is no longer there to hold the larger fish. We should address this issue ASAP. If they refuse to stop pumping sand, they must be forced to establish structure in the water to reestablish the habitat for the fish. I can't believe all of the tree hugging environmentalists are not all over this!

As for what we can do now, I would suggest the following:

- impose lower overall seasonal limits now in one shot
- implement lower daily catch limits across the board (greater than or equal to one daily)
- institute a bonus system in exchange for a mandatory data log from fishermen
- have all states follow same rules
- institute a voluntary tag program to track migratory trends and mortality

From a heuristic point of view, something is seriously wrong with this fishery. We have not seen large bluefish or striped bass in 3 years on the beach, except a few days in the spring. The fall used to be a bonanza. The peanut bunker and mullet are gone. The sand eels are down significantly. Gannets are gone too. We have to do something drastically now or it will be too late to recover.

Thanks.

Tony Saldutti, CPIM
610-533-2711
tsaldutti99@gmail.com

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| :--- | :--- |
| From: | James Fletcher [bamboosavefish@gmail.com](mailto:bamboosavefish@gmail.com) |
| Sent: | Monday, March 1, 2021 10:32 AM |
| To: | Kiley Dancy; Moore, Christopher |
| Subject: | Summer Flounder Reallocation Amendment Comments UNFA |
| Attachments: | Summer Flounder Amendment Comments.pdf |

Please see that these comments are considered prior to Council Moving Forward with Reallocation Amendment for SF,Scup< BSB HOW DOES NMFS GET BY WITH NOT COMPLYING WITH (P.L.109-479) EVERY ANGLER TO REGISTER! ANY HOW INCLUDE THE FOLLOWING COMMENTS
THANK YOU;

James Fletcher
United National Fisherman's Association
123 Apple Rd.
Manns Harbor, NC 27953
252-473-3287

THUS IMPACTS FROM CHEMICALS \& PHARMACEUTICELS are not evident in the fish scale or otolith studies. Instead non scientific reallocation of fish / quota is proposed. NOTE: The reallocation proposed is less than the discards now allowed. Back to Question 2. What prevents full retention for recreational?
U.S. Fish \& Wild Life Data / Saltwater licenses 2020 shows New York 886, 624 salt water licenses Connecticut 151,007 New Hampshire 156,000 Rhode Island 64,687 When Council \& NMFS comply with P.L. 109-479 perhaps exact numbers will be available. $80 \%$ of these licenses fish from shore or docks.

QUESTION 3. WHY IS REALLOCIATION OF Summer Flounder, Scup \& BSB FROM THE 330 MILLION AMERICANS WHO DO NOT FISH BEING CONSIDERED?
$92 \%$ to $93 \%$ of seafood consumed is imported because of regulations promoting waste of resource.

Prior to reallocation amendment the council could / would discuss why 92 to 93 percent of all sea food consumed in United States is imported!

Question 4, Why recreational discards exceed retained fish ? Could / would full retention by recreational fishers with total length benefit shore side fishers that make $80 \%$ of recreational licenses?
Council \& NMFS has not implemented Gear restrictions to reduce dead discards \& by catch.
Council \& NMFS MUST consider other options prior to continuing forward with this re allocation amendment.

The United National Fisherman's Association favors :

1. Status Quo.

Council, NMFS, Atlantic States Marine Fisheries Commission implement :
2. Total Recreational length retention for each species, NO DISCARDS.
3. Gear modification: including barbless hooks, single hook per line, no treble hooks on vessel in EEZ.
4. Total accounting of numbers of recreational fishers in EEZ as REQUIRED BY ( P.L.1094790) registry requirement! NOT A LISTING OF STATE SALT WATER LICENSES SALE BEING CONFUSED BY LIFE TIME LICENSES (not ending at death)
5. MANDATORY ELECTRONIC REPORTING; REQUIREING PRE TRIP NOTIFICATION (ALLOWING COAST GUARD VERIFICATION AT SEA) POST TRIP REPORTING WITHIN 48 HOURS OF PRE TRIP NOTIFICATION!

This Amendment to reallocate is not needed:
WE favor: ( UNFA ) Status Quo, Total length retention by recreational, gear requirements, barbless hooks, Compliance with ( P.L. 109-479)

United National Fisherman's Association
123 Apple Rd, Manns Harbor NC 27953

James Fletcher Director, 3/1/2021 ph 2524733287

Reallocation Summer Flounder, Scup, Black Sea Bass Process Comments:
Public Law 109-479 (2006 -effective 2007) Required a Recreational Salt Water Registry system for ! all persons fishing in EEZ \& For anadromous species ( fish from the sea that go up river to freshwater for breeding such as Stripped Bass, Atlantic Salmon, and American Shad (codified at 16 USC 1881 (g)

QUESTION 1. WHEN WILL NMFS \& COUNCIL COMPLY WITH (P.L. 109-479) AND MANDATE RECREATIONAL REGISTRATION FOR EEZ FISHING?

Reallocation is to shift COMMERCIAL FISH / QUOTA from southern states.
This process does not address the waste of fish through dead discards on recreation side. Council \& NMFS have ignored calls for total length retention from advisors \& public to eliminate dead discards.

FISH BEING DISCARDED IF ALLOWED TO BE LANDED: ARE MORE THAN THE PROPOSED TRANSFERS BOTH NUMBERS \& POUNDS.
Best estimates is less than $14,000,000$ salt water licensed / permitted recreational fishers exist in the entire United States Question 1 above would provide an answer.

## QUESTION 2. WHAT PREVENTS THE RETENTION OF ALL FISH BY RECREATIONAL SECTOR?

Council \& NMFS do not clarify the difference between pounds \& numbers in the reallocation amendment so the public can understand.

Council \& NMFS have a history with Atlantic States Marine Fisheries Commission of limiting the ability of shore side fishers to retain fish for food utilizing 1, size, season, possession limits; A total retention policy / regulation will address this inequity. BY ELIMINIATING DISCARDS.

PAST COUNCIL \& NMFS SCIENCE TOWARD RETENTION OF LARGER FISH DUE TO REGULATIONS: has resulted in greater dead discards \& possibility slower growing smaller fish being produced due to growth genetics.

Council \& NMFS with Atlantic States Marine Fisheries Commission ignore request for stock enhancement research.

The discussion of the stocks moving north is untrue: Commercial landings have moved north due to the turtle excluder requirements for trawl nets mandating only aluminum rigid construction. Cable Turtle Excluder's are not allowed by NMFS. ***** Council refuses to ask for approval for cable TEDS. Opting instead for reallocation of fish to states with the greatest dead discard problems:
NO DISCUSSION FOR EXPANSION OF STOCK / RANGE FOR THE THREE SPECIES.
IT IS UNCLEAR IF THE SCIENCE SUPPORTING THE REALLOCATION FOR THE THREE SPECIES IS CORRECT.
THE USE OF:
SCANNING ELECTRON MICROSCOPES FOR AGING \& OTOLITH STUDY IS NOT UTILIZED.

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From: Moore, Christopher
Sent: Tuesday, March 2, 2021 10:24 AM
To: TechStaff
Subject: FW: Public hearing?
Importance: High
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fyi
Christopher M. Moore, Ph.D.
Executive Director
Mid-Atlantic Fishery Management Council
800 N. State St, Suite 201
Dover, DE 19901
302-526-5255
mafmc.org

From: Jim Dawson [jimdawson1@verizon.net](mailto:jimdawson1@verizon.net)
Sent: Monday, March 1, 2021 5:51 PM
To: Moore, Christopher [cmoore@mafmc.org](mailto:cmoore@mafmc.org)
Subject: FW: Public hearing?
Importance: High

From: Jim Dawson [jimdawson1@verizon.net](mailto:jimdawson1@verizon.net)
Sent: Monday, March 01, 2021 5:50 PM
To: 'Patrick Geer' [pat.geer@mrc.virginia.gov](mailto:pat.geer@mrc.virginia.gov)
Cc: 'Bolen, Ellen' [ellen.bolen@mrc.virginia.gov](mailto:ellen.bolen@mrc.virginia.gov); 'alexa.galvan@ mrc.virginia.gov' [alexa.galvan@mrc.virginia.gov](mailto:alexa.galvan@mrc.virginia.gov)
Subject: Public hearing?
Importance: High
I am going to decline the attempt at what is "supposed to be" a "public hearing". "Due process" has NOT been followed and shall be challenged!
"Virtual" does in no way suffice "legally" for "public". In "written law", we the people are supposed to be given rights. By allowing "virtual" in an attempt to go around the rights of the people involved, our fisheries management does NOT allow the individuals involved the opportunities to meet "in person" therefore our people involved CANNOT display nor present nor offer "hard copy evidence" to defend themselves. Those who sit "in offices" and now "at home" do not and cannot understand what actually is and has occurred within our ocean waters, yet they continue to make decisions for those of us who work each and every day on the water. Most each and every person who "voted" do not have the qualifications to vote for the tens of thousands of individuals negatively "impacted" by these ridiculous measures being proposed! We have been "mis-represented" and deserve the chance to represent ourselves "in person" at a true "public" hearing process. In the past 5 years I have spent 328 days at sea fishing for black sea bass. I "qualify". I understand FULLY what is happening with respect to black sea bass and most others do NOT! I have NOT
been spoken to as of yet by my state nor any other person. Not one person has contacted me via telephone at my home. Is this following Magnuson rules? State rules? ANY rules?

The Magnuson-Stevens Act requires a fishery impact statement, which assesses, specifies, and describes the likely effects of conservation and management measures on participants in the fishery or fisheries being managed, fishing communities, and participants in neighboring fisheries. The FIS should include an assessment and description of the economic and social impacts of the proposed action on the various components of the fishery being managed, over the entire range of the regulated species, on participants in the fishery and in other fisheries, and on fishing communities.

In my state of Virginia, I have not heard of one instance where by the fishermen were asked about the "impacts" from what will transpire should these measures that were already "voted on" actually go through. Then how about the industries impacted as well as the thousands of people we feed on a daily basis. The management teams have agreed to "take away" a food source from the southern states WITHOUT following proper procedures and guidelines according to their own rules and regulation, much less their own written law!

We the fishermen and industry request that our management teams go back to the drawing board on this matter, delay until such time as the Covid-19 pandemic situation is over and allows for the human rights to defend oneself "in person" can be done safely and in accordance with written law and Magnuson impact rules that MUST be accomplished within each states own individual industries. Not one person has been asked to explain in full detail as to how this will impact their own business? This is NOT a fair nor "just" process and we DEMAND that the rules be followed "by the letter".

I will NOT listen to anyone until those involved take "impact statements" from our industry members within this state and surrounding states.

Thank you and please understand: Rules and regulations apply to our fisheries management teams as well. Shall you need further understanding of the Magnuson Act, which CANNOT be completed without actual industry being spoken to, I will be glad to direct you to further readings from NOAA fisheries under "laws and policies".

Jim Dawson
3-1-2021

To Mid Atlantic Council:
My name is Mark S Phillips an owner/operator for more than 40 years. Contrary to what many recreational advocates have said commercial fishermen have never been given any quota. Quotas have gone up and down according to the TAC. Unlike the recreational we carry observers, fill out VTRs backed up by dealer reports, face stiff penalties, all commercial discards are counted as dead.

The Mid Atlantic Council has had more than 30 years to address recreational accountability and overfishing. While from day 1 of the summer flounder plan commercial fishermen have been accountable and punished for overfishing which was always paid back the next year. Unlike the recreational who have skated by on taking overfishing off the next year's TAC ( commercial paid $60 \%$ of the recreational overage) or by gimmicks to erase overages, change the stock size to account for recreational overfishing, all gimmicks that would never be allowed for commercial overages.

Before the beginning of the scup plan I spent 9 years begging this council to put a $9^{\prime \prime}$ minimum fish size limit on scup. It was a nightmare. This council did nothing. When they did there was a lot of fighting between users, recreational wanted to count their discards as landings to raise their percentage, recreational wanted a 7 " size limit. For the recreational this is a common thread, the recreational don't believe they affect the stock so they shouldn't have restrictions.

So for more than 30 years this council has not done its job and does not want to do their job of controlling all overfishing, it is time that this council does its job and puts accountability measures in affect before reallocation is put on the table. If not then all council members should at the very least tell the public that they are never going to address recreational overfishing.

When the council was tasked with looking at New York's lack of quota for both recreational and commercial allocation purposes it chose to ignore past inequities but now because it is recreational only it has no problem reallocating to one user group because the council refused to put restraints in these plans at the beginning, this is a failure of this council to do their job. The least painful for them personally is to punish the group that abided by the rules set in place by this council; this is a cop out of doing their job.

I support status quo for all three species, until this council addresses recreational accountability measures.

Why is one group rewarded for continually overfishing?

Thank you<br>Mark S Phillips<br>F/V Illusion<br>Greenport, NY

From: Dock to Dish [docktodish@gmail.com](mailto:docktodish@gmail.com)
Sent: Tuesday, March 2, 2021 6:25 PM
To:
Subject:
Kiley Dancy
Fwd: Dock to Dish Montauk: Comment for quota hearing from Sean Barrett, Cofounder


Begin forwarded message:
From: Dock to Dish [docktodish@gmail.com](mailto:docktodish@gmail.com)
Date: March 2, 2021 at 6:19:27 PM EST
To: gina.fanelli@dec.ny.gov, kim.knoll@stonybrook.edu, g2w@asmfc.org, maureen.davidson@dec.ny.gov
Cc: Bonnie Brady [greenfluke@optonline.net](mailto:greenfluke@optonline.net), James Gilmore [James.Gilmore@dec.ny.gov](mailto:James.Gilmore@dec.ny.gov)
Subject: Dock to Dish Montauk: Comment for quota hearing from Sean Barrett, Cofounder

Hello DEC \& ASMFC friends,

I am in zone with limited cell phone reception and cannot be sure that my audio will be available for the duration of the hearing.

As such I hereby authorize Bonnie Brady to please read my comment below into the record at the quota hearing tonight.

Thanks,
Sean

Comment: "Hello my name is Sean Barrett, I operate Dock to Dish ${ }^{\text {TM }}$ which is the Community Supported Fishery of New York headquartered in Montauk. I have operated the program since 2012 and the only action I can support is status quo for this amendment on the scup, black sea bass, and fluke quotas. New York cannot afford to lose more quota in these fisheries, it will be devastating to me and my fishing community and the businesses that support us. I also support a recreational reform amendment so that they can help their fishery to turn discards into landings. But I cannot support taking my landings that feed people and turning them into their dead discards. That was never the intent of Magnuson."


Sean Barrett
Cofounder
www.docktodish.com
f $\mathbf{y}$ ©

From: fishthewizard@aol.com
Sent: Thursday, March 4, 2021 11:07 AM
To: Kiley Dancy
Subject: Fluke/Scup/Blaclk Sea Bass Allocation Amendment Comments

## Re: Black Sea Bass

To Whom It May Concern:
We have been commercial sea bass potters in NJ for decades. Time, effort, and money invested in our boat and gear is substantial. We are active in rulemaking processes, and fish within the quota, abiding by trip limits and seasons. Sea bass fishing is our livelihood.

This is incredible that a reallocation between sectors has even been suggested. It would not be equitable access to the resource for commercial fishermen, and certainly not to the people of the country who aren't able to fish themselves. The recreational sector is not held accountable for any catch overages, and their fleet is allowed to expand uncontrolled.

There should be no action on this amendment. it should remain status quo.
No change to allocations; 1c-4
If anything, the commercial sector should get more quota.
No transfer between sectors: 2a
There are no extra fish to transfer in either direction.
No framework/addendum provision: 3a
Public comment is needed, and regulations not rushed through.

Joan Berko

Michael Scott
F/V Wizard


The NJ Council of Diving Clubs (NJCDC) is an organization of 14 sport diving clubs located in NJ with a few clubs in nearby states. Our members actually see what is happening in the underwater environment off the coast of New Jersey.

Regarding Catch Based vs Landing Based, the NJCDC is uncertain how catch based will impact the recreational or sport diver fishery for Summer Flounder and Sea Bass and, therefore, will select landing based as the NJCDC is reluctant to venture into the uncharted territory of catch based.

Regarding the Commercial/Recreational Allocation alternatives from Table Two for Summer Flounder, the NJCDC would support 1a-2 under catch based or 1a-6 under Landing Based contingent on what the MAFMC/ASMFC decides on Catch Based or Landing Based. This would allow an increase in the allowable catch for the recreational fishery without putting the commercial fishery out of business, and would be more in line with the reality of the actual take while benefiting the maximum number of fishermen.

Regarding Scup (Porgy), the sport diver/spearfisherman rarely takes this species because it is a small, free-swimming fish and will not comment. The NJCDC would rather those in the recreational or commercial sector that actually take this fish do the comments.

Regarding Black Sea Bass, my observation on the wrecks and artificial reefs off NJ in 2020 was that I never saw so many sea bass, to the extent that this species was dominating the wrecks to the harm of other important species, such as Fluke and Tautog that also forage on the wrecks and artificial reefs. Therefore, I believe that the technical committee should increase the ABC or total catch in both the commercial and recreational fisheries.

Regarding Table 4 for Black Sea Bass, I would like to see the recreational catch increase such as in catch based $1 \mathrm{c}-2$ or landing based $1 \mathrm{c}-6$. But I don't believe the commercial fishery should be penalized since this fish is overpopulating the hard habitat off NJ based on my observations last year.

Regarding Table 8 for the Allocation Change Phase-In period, 1d-2 or a two-year phase in period sounds about right. One year is too quick, and 4 years too long as the situation could change in that period of time. Regarding the Annual Transfer Quota Cap Alternative or Table 14, 2 b or allow bi-directional transfers through annual specifications. I am assuming that the public has an opportunity to submit comments on the annual specification process. Regarding Transfer Cap Alternatives or Table 16, $2 \mathrm{c}-3$ or $10 \%$ of the ABC .

Regarding the Framework/Addendum Provision Alternative or Table 18, the NJCDC believes that this fundamental decision should not be a short-term decision. 3A or Status Quo would be best allowing for more time for careful consideration.

## Respectfully

jf2983182@msn.com
Jack Fullmer, Legislative Committee

I am writing to comment on the Summer Flounder, Scup, and Sea Bass
Commercial/Recreational Allocation Amendment. All of my comments only pertain to the summer flounder regulations.

I agree with the rationale for the Landing-Based method to determine the allocations. I prefer alternative 1a-7. It may seem harsh because of the $34 \%$ reduction in commercial quota, but I will present data that justifies this reduction.

The "new MRIP" from the 66 Saw gave the commercial quota a $49 \%$ increase in 2019. Now the 2021 ABC of 27.11 resulted in the commercial quota increasing another $8 \%$. In both cases, the RHL remained unchanged. The $8 \%$ change effectively increased the commercial allocation from $60 \%$ to $62 \%$ and reduced recreational to $38 \%$.

The absurdity of the 62-38 ratio is demonstrated by Figure 8 of the Draft Amendment. The calculations using the "new MIRP" show the commercial average of $41 \%$ and recreational $59 \%$, which matches 1a-7.

The $34 \%$ decrease would be mitigated by several factors. The decrease is based on the ABC of 25.03 million pounds. In 2021, the ABC was increased to 27.11. Applying the two year at $9.5 \%$ per year reduction would produce a commercial quota of 9.44 year one and 8.22 year two. 8.22 is approximately $8 \%$ higher than the value from using 25.03 ABC. Since summer flounder are not overfished and overfishing is not occurring, the ABC should continue to increase which would increase the commercial quota.

A 34\% decrease in allocation does not translate to a 34\% decrease in revenue. Figure 9 from the draft amendment shows the relationship between supply and price per pound. The narrative with Figure 9 describes how a lower allocation may produce a higher price and actually be more profitable.

From Table 11, I would support 1d-2, a 9.5\% shift per year for the reasons stated previously.

From Table 14, I would favor 2b. This would provide a buffer as the RHL increases and the commercial quota decreases.

Some general comments regarding the amendment:

1. The big increase in MRIP demonstrates the need for more accurate recreational reporting. I would be willing to report on a daily or weekly basis.
2. Section 4.2.2 "Shore based anglers in particular are concerned about the high minimum size." AMEN! I fish from shore and the last five years have average 1 keeper $/ 50$ fish to $1 / 70$. Connecticut has coastal sites with smaller sizes limits, and New Jersey has an area with a 16 -inch limit. It is time for a coast wise lower limit for shore-based anglers.
3. With the current regulations, recreational anglers are removing too many females.
4. More research is needed into the dead discard projections of both sectors. What would be the result of a lower size limit for commercial catch?
5. Each year I witness more poaching keeping short fish. Some are unaware of the regulations and others are frustrated by the limited opportunity to keep a fish.
[Comments submitted by Patrick White, 3/6/21]


ROBERT HAMILTON JR. INC.

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\text { FlU MISS NANCY } \begin{gathered}
\text { ROBERT HAMILTON JR. INC. } \\
\begin{array}{c}
\text { S27MAINSTREET } \\
\text { GRENPORT, N.Y. } 11944 \\
631-477-0243,631-477-0928 \text { FAX } \\
516-383-1430 \mathrm{CELLL}
\end{array} \\
\end{gathered}
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Mid-Atlantic Fishery Couna. 1
Chris Moore PhD
Executive Director
M. State st suite aol

Dover, $D 2$ licion
FAx 302-674-5399
Re: Reallocation Ammendment for the swoop, black sea bass + fluke fisheries,

I support status -Quo for this ammendment.

The commercial industry supplies seafood products for the American consumers. Retail markets and resturan need a stand supply of seafood at reasonable prices, so that the public may enjoy them.

Council member 1894-2000 commercial fisherman 1970-present

| From: | Arthur D Smith [artsmith@rsnet.org](mailto:artsmith@rsnet.org) |
| :--- | :--- |
| Sent: | Tuesday, March 9, 2021 5:48 PM |
| To: | Kiley Dancy |
| Cc: | bjseafood; Hemilright Jr, Dewey; Jerry Schill; art |
| Subject: | FLUKE/SCUP/SEA BASS ALLOCATION AMMENDMENT |

I SUPPORT THE "STATUS QUO" ALTERNATIVE FOR ALL THREE SPECIES.

WE NOW LIVE IN AN ERA WHERE MOST PEOPLE QUESTION THE RESULTS OF ALL SURVEYS. IT ALMOST SEEMS LIKE SOMEONE (I DON’T KNOW WHO) PRESENTED THE FISHERIES STAFF WITH A CONCLUSION (THE CONCLUSION BEING THE REC SECTOR OUT HARVESTS THE COMMERCIAL SECTOR) AND THEN INSTRUCTED THE STAFF TO DEVELOP DATA TO SUPPORT THIS CONCLUSION.

CHANGING THE BASE YEARS IS LIKE CHANGING THE RULES IN THE MIDDLE OF THE GAME. IF YOU CHANGE THE BASE YEARS IS CHANGING THE RULES FOR PERMIT QUALIFICATION NEXT? IF I NOW HAVE A FLOUNDER PERMIT BUT FOR SOME REASON DID NOT LAND ANY FLOUNDER DURING THIS NEW BASE PERIOD WOULD I LOSE MY PERMIT? I HATE TO BE A SKEPTIC BUT IS THIS SOME BACK DOOR WAY OF DECREASING THE NUMBER OF FEDERAL FLOUNDER PERMITS?

YOU ARE SAYING THAT REC HARVEST EXCEEDED COMMERCIAL HARVEST DURING THESE OTHER BASE YEARS. I AM NOT SAYING THAT I AGREE WITH YOUR SURVEY RESULTS BUT I WILL GRANT YOU THAT IT IS POSSIBLE. THE COMMERCIAL HARVEST IS MONITORED DAILY AND CONSTRAINED ONCE QUOTAS ARE MET. THE COMMERCIAL SECTOR IS SUBJECT TO VERY STRICT GEAR RESTRICTIONS. THE REC HARVEST IS LARGELY UN-CONSTRAINED. THERE ARE NO GEAR RESTRICTIONS. EVEN IF YOU CAN’T KEEP THE FISH YOU CAUGHT PEOPLE WILL STILL FISH. NO ONE STOPS YOU FROM FISHING DURING A CLOSED SEASON. THIS IS WHAT I MEAN BY UN-CONSTRAINED. IF YOU CAN FISH AND I CAN'T CERTAINLY YOU WILL CATCH MORE THAN ME EVEN IF YOU CAN'T LAND THEM. THAT, HOWEVER IS NOT A FAIR WAY TO BASE ALLOCATION.

ANOTHER POINT TO REMEMBER IS THAT THE COMMERCIAL SECTOR IN REALITY REPRESENTS THE SEAFOOD CONSUMING PUBLIC. THE VAST MAJORITY OF AMERICANS DEPEND ON THE COMMERCIAL SECTOR TO PROVIDE THEM WITH FRESH SEAFOOD. MOST PEOPLE CANNOT AFFORD TO GO OUT AND TRY TO CATCH THEIR OWN FISH WHEN YOU FACTOR IN THE COST OF TACKLE, BOATS, FUEL AND CHARTER FEES. IF YOU TAKE ALLOCATION AWAY FROM THE COMMERCIAL SECTOR YOU ARE IN REALITY TAKING IT AWAY FROM THE CONSUMER AND THE CONSUMER FAR, FAR OUTNUMBERS THE REC SECTOR.

ART SMITH
BELHAVEN, NC

| From: | Carl Forsberg [lito325@msn.com](mailto:lito325@msn.com) |
| :--- | :--- |
| Sent: | Wednesday, March 10, 2021 10:24 AM |
| To: | Kiley Dancy |
| Subject: | Summer Flounder, Scup, Sea Bass Allocation Amendment |

March 10, 2021

Chris Moore, Ph.D., Executive Director
Mid-Atlantic Fishery Management Council
800 North State Street, Suite 201
Dover, DE 19901
RE: Summer Flounder, Scup, Sea Bass Allocation Amendment

Dear Dr. Moore,
I would like to submit the following comments regarding the joint MAFMC/ASMFC Summer Flounder, Scup, and Black Sea Bass Commercial/Recreational Allocation Amendment. Many of which are similar to those submitted but the RIPCA.

Recent changes in how recreational catch is estimated have resulted in a big disconnect between the current levels of estimated recreational harvest and the allocations of summer flounder, scup, and black sea bass to the recreational sector. Importantly, the revised MRIP estimates were incorporated into the stock assessments for summer flounder in 2018 and for scup and black sea bass in 2019. The revised MRIP estimates are also used to evaluate recreational fishery performance, so updating the current allocations using the new data is critical.

Additionally, I feel an important need for this Amendment is to base conservation and management measures on the best scientific information available and increase net benefits to the Nation, consistent with the Magnuson-Stevens Fishery Conservation and Management Act and its National Standards.

The current allocations result in regulations that disenfranchise the fishing public, which is made up of a diverse demographic.

For example: The fore hire scup fishery is a very diverse group of anglers, made up of a majority of minorities. Tightening of regulations as a result of not reallocated could severally impact the precipitation for this group of minority anglers.

There seems to be a lot of outreach to the fishing public though websites, charter boat associations and fishing clubs. Most of the outreach that is done is not targeted to groups that could be impacted severally. When these anglers are finally made aware of the changes, it is too late. They do not have the chance to stand up and speak for or against a change. On top of that, it may be intimidating to speak at public meeting that are dominated by paid commercial lobbyists.

For summer flounder, the revised MRIP recreational catch estimates were $30 \%$ higher on average compared to the previous estimates for 1981-2017. Higher recreational catch resulted in increased estimates of stock size compared to prior assessments. The new larger stock size resulted
in a huge 49\% increase in the commercial quota and recreational harvest limit (RHL) for 2019. Projected recreational harvest using the new MRIP method ate up nearly all of the $49 \%$ increase in the RHL therefore, recreational measures could not be liberalized in 2019 despite the 49\% increase in the RHL. Commercial Quota's increased by 49\%

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The recreational catch data have a lesser impact in the scup stock assessment model, with the 2019 operational stock assessment showing minor increases in biomass estimates compared to the 2015 assessment.

For black sea bass, the revised MRIP recreational catch estimates were 73\% higher on average compared to the previous estimates for 1981-2017. Higher recreational catch resulted in increased estimates of stock size compared to prior assessments. The larger stock size resulted in a huge $59 \%$ increase in the commercial quota and recreational harvest limit (RHL) for 2020. Projected recreational harvest using the new MRIP method ate up nearly all of the $59 \%$ increase in the RHL therefore, recreational measures could not be liberalized in 2020 despite the $59 \%$ increase in the RHL. Commercial Quota's increased by 59\%

The aged commercial/recreational allocation percentages as defined in the FMP for Summer Flounder, Scup, and Black Sea Bass do not reflect the current understanding of the historic, and more importantly recent, proportions of catch and landings from both the commercial and recreational sectors. Since allocations can only be changed by amending the FMP, we believe this amendment is critical at this time to correct the current allocations which were made using old and less accurate data. This amendment will allow the Council to meet National Standard 2 and set the Council and Commission up to use the Best Scientific Information Available in this FMP.

The first decision that I feel should be made is whether to use a catch-based or a landingsbased allocation approach. Taking this issue species by species, we recognize that Scup currently uses a catch-based approach and for simplicity we would support staying with a catch-based approach for Scup. For Summer Flounder, an opportunity exists to move to a catch-based approach from a landings-based approach. Catch-based approaches allow each sector to be accountable to its own dead discards which makes the most sense overall. For Black Sea Bass, the current Black Sea Bass stock assessment does not model landings and dead discards separately; therefore, calculations of total projected landings and dead discards for black sea bass cannot be informed by stock assessment projections. Instead, other methods, such as those based on recent year average proportions, must be used. This layer of complexity is important and draws us to support staying with a landings-based approach for Black Sea Bass.

### 4.1.1 Summer Flounder Allocation Alternatives

I support Alternative 1a-2: 43\% commercial, $57 \%$ recreational This alternative is supported by multiple approaches and it represents a shift to a catch-based allocation approach as a better way to hold each sector accountable to their own dead discards. This alternative will provide the commercial fleets with a quota that is above the average landings over the past four years and about a dollar a pound more in ex-vessel price. At the same time, the highly restricted recreational fishery may be able to liberalize regulations slightly for an improved experience and potentially increased revenues to the for-hire fleets.

### 4.1.2 Scup Allocation Alternatives

I Alternative 1b-3: 61\% commercial, 39\% recreational. This alternative is supported by multiple approaches and it maintains the current catch-based allocation approach as the best way to hold
each sector accountable to their own dead discards. This alternative would provide the commercial fleets with an allocation that would allow them to land scup at the current levels and higher, while maintaining ex-vessel pricing. The recreational fishery, under this alternative, would have the potential to harvest at similar levels to recent years, avoiding draconian cuts that would be necessary without an allocation adjustment.

### 4.1.3 Black Sea Bass Allocation Alternatives

I support Alternative 1c-6: 29\% commercial, $71 \%$ recreational. This alternative is supported by multiple approaches and it maintains the current landings-based allocation approach. As noted above, the current black sea bass stock assessment does not model landings and dead discards separately; therefore, we recommend continuing with the landings-based allocation approach used in this alternative. Alternative 1c-6 allows for a possible commercial quota under an ABC similar to 2020 that exceeds historic landings in all but 2 of the past 16 years. The recreational fishery, under this alternative, would have the potential to harvest at similar to slightly lower levels compared to recent years, avoiding draconian cuts that would be necessary without an allocation adjustment.

### 4.1.4 Allocation Change Phase-In Alternatives

I support Alternative 1d-1: No phase-in. We do not support a phase in period for allocation changes because the new recreational catch estimates are currently being used to evaluate the performance of the recreational fishery. Delaying the implementation of updated allocation percentages over some time frame will needlessly hurt the recreational fishing community and deprive the recreational fishery of valuable fishing opportunities.

### 4.2.1 Quota Transfer Process Alternatives

I support Alternative 2b.

### 4.3 Framework/Addendum Provision Alternatives

I support Alternative 3b: Allow changes to commercial/recreational allocations, annual quota transfers, and other measures included in this Amendment to be made through framework actions/addendum. This alternative would provide flexibility to the Council/Commission to adapt to new information in a timely fashion as it becomes available. This alternative would not preclude the Council/Commission from using the amendment process if impacts were to be determined to be significant.

Failure to make the necessary reallocation could result in a situation like we see in the Gulf of Maine Cod fishery, Where the recreation angler is held to little or no possession for most of the year.

Carl Forsberg
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Sent from Outlook

# Seafreeze Ltd. $4|||||\mid$ 

100 Davisville Pier<br>North Kingstown, R.I. 02852 U.S.A.<br>Tel: (401)295-2585

Dr. Chris Moore, Executive Director
Mid Atlantic Fishery Management Council
800 North State Street, Suite 201
Dover, DE 19901

## Re: Summer Flounder/Scup/Sea Bass Allocation Amendment Comments

Dear Chris,

I am writing to support status quo for all three species in the Summer Flounder/Scup/Black Sea Bass Commercial/Recreational Allocation Amendment. None of the reallocation measures proposed by this amendment are justified nor ready for final Council action in April.

The Council has been aware of the potential problems with using new MRIP numbers since 2017, including the potential realities of overfishing and need for recreational accountability for overages. ${ }^{1}$ Initial discussion on the Allocation Amendment included recreational accountability. However, the Council chose to separate allocation from accountability and instead consider recreational accountability in the Recreational Reform Initiative. ${ }^{2}$ Since that decision, recreational accountability has been completely removed from the goal/vision of the Recreational Reform Initiative. ${ }^{3}$ Yet allocation to the recreational sector from the commercial industry, which is held accountable for its harvest, is still being considered absent any reform necessary to deal with the new MRIP data and recreational overages. This is not equitable management nor is it a viable way to sustainably manage a shared stock.

At the same time, the Council has not provided analysis of the alternatives in the amendment using actual new MRIP numbers. This is partly because for some species the Council was not provided with the data in a timely manner. Information in the public hearing documents is presented in percentages, but not real quota situations. This is unfortunate, because the Council and many of the

[^12]public- commercial and recreational- have not been made aware of what using the new MRIP numbers means in an Allocation Amendment context. When the Allocation Amendment is put into the context of reality and the actual MRIP numbers themselves, all of the reallocation alternatives contained within the amendment would cause real economic harm to the commercial sector for no good or effective reason.

Staff presentations given during the Final Public Hearings between Feb. 17, 2021-March 2, 2021 informed the public that "Example quotas and RHLs should be taken with a grain of salt". This is unacceptable for a document in the final round of public hearings. The public, as well as the Council, need to be aware of what they are commenting and/or voting on.

There has also been last minute confusion of what some of the new MRIP numbers actually are, which made the final rounds of public hearings more of a discovery process rather than an opportunity to comment on hard data. For black sea bass, new MRIP 2019 numbers were not made available until January 2021. In a January 15 memo to the Council, the agency informed the Council that the black sea bass had exceeded most of the established catch limits, including the OFL. ${ }^{4}$ This memo listed recreational dead discards at 1,468 mt ( 3.2 million lbs) and coastwide commercial quota at 1,596 mt ( 3.5 million (bs). Essentially at these levels, the entire commercial quota would need to be reallocated to simply cover recreational dead discards. However, at the same time, during the first week of final public hearings, the public was informed that these numbers were under review again.

On Feb. 24, with only two final public hearings left to go, the agency sent a second memo to the Council regarding these numbers. While making corrections to errors in the previous letter, where new MRIP discard numbers had accidentally been substituted for old MRIP numbers, the corrections maintain 2019 new MRIP recreational discards at $1,468 \mathrm{mt}$ ( 3.2 million lbs). First, it is a major problem that the true numbers were not made public or even available to the Council until more than halfway through the final public hearings on the amendment. This has resulted in an inability to understand the impacts of reallocation. Most members of the public do not even know this document exists. Second, even with a new black sea bass assessment using the new MRIP numbers, the ABC will continue to be exceeded by recreational discards and any attempt at reallocation will simply turn what would have been commercial landings into recreational dead discards. This is the complete opposite of the Council's charge under Magnuson.

In 2020, the black sea bass OFL was 19.39 million Ibs, and the ABC was 15.07 million Ibs. Commercial landings are estimated at approximately 3.64 million Ibs. Commercial discards are not yet known but if proxied with an average of recent years would be approximately 1.82 million Ibs. This would place the commercial sector within its 2020 commercial quota. ${ }^{5}$

If 2019 new MRIP numbers are proxied for 2020 new MRIP numbers, recreational harvest would be $3,905 \mathrm{mt}$ ( 8.6 million lbs ) and recreational discards at $1,468 \mathrm{mt}$ ( 3.2 million lbs ). These numbers, from the agency's Feb 24, 2021 memo, total to 17.31 million Ibs when combined with the commercial quota.

[^13]This is 2.24 million lbs over the coastwide $A B C$. This entire overage is due to recreational catch and discards, and lack of Council action to address recreational overages.

The 2020 RHL was 5.81 million lbs. ${ }^{6}$ Despite the fact that staff projections for 2020 new MRIP recreational harvest estimates were at 8.1 million lbs causing the RHL to be exceeded by $29 \%$, ${ }^{7}$ and the fact that MC projections for 2020 new MRIP recreational harvest estimates were at 7.33 million lbs causing the RHL to be exceeded by $20 \%,{ }^{8}$ the Council chose not to reduce recreational black sea bass size limits, possession limits or seasons and instead chose status quo measures. ${ }^{9}$ In fact, recreational harvest was higher than each of these projections, at 8.6 million lbs.

Based on the above, if 2020 is taken as a real-life case study, and if 2019 new MRIP numbers are proxied for 2020 new MRIP numbers, commercial landings were 3.64 million lbs, and recreational discards at 3.2 million lbs. This is staggering. Because of the magnitude of these numbers, none of the alternatives in the Allocation Amendment to reallocate commercial quota to the recreational sector will even come close to addressing the issues the Council is seeking to address through the Allocation Amendment. Even if the Council adopts any of the amendment alternatives to reallocate commercial quota to the recreational sector, the recreational sector will still experience bag/season/limit cuts to prevent further overages of the $A B C$, unless the Council continues to ignore $A B C$ overages. The numbers are just too high to cover with a reallocation.

The fact that these recreational discards alone are more than enough to cause the 2.24 million lb overage of the 2020 ABC means that any reallocation will be simply turning edible fish in the form of commercial landings into recreational discards. That is not good policy for the American public. Reducing food production to accommodate discards is unacceptable. It is also unacceptable to reallocate from a sector that the Council chooses to hold accountable to a sector that the Council has chosen not to manage. This is not good public policy and it is also not sustainable for the resource.

We can therefore only support No Action for this amendment. Commercial measures contributed to the stock's rebuilding success; the commercial sector should not be penalized for commercial accountability. The Council cannot cause substantial economic harm to the commercial industry to simply account for recreational discards and an issue of recreational overages it refuses to address. The Recreational Reform Initiative should take precedence over this action and include measures for recreational accountability to preserve the health of shared stocks.

[^14]Thank you for the ability to comment.
Sincerely,
Meghan Lapp
General Manager, Seafreeze Shoreside
Fisheries Liaison, Seafreeze Ltd.

## Fax Cover Page



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(2) Reply-to Email:

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+1 (302) 674-5399
Dr. Christopher Moore, Executive Direc
03/07/2021
4 (including cover page)

Denise Wagner - J W Commercial Fishing Inc
wagnerfishingone@yahoo.com
+1 (609) 515-3788
+1 (609) 624-8435

Public Comment Flounder, Scup and Black Seabass Allocation Amendment

Attention Dr. Christopher Moore, Executive Director Mid Atlantic Fishery Council.
Attached is a 3 page letter for comments on the above Amendment. If it doesn't come through clear please call me at 6095153788 and I will resend. Including cover page you should receive 4 pages all together. Thank You, Denise Wagner

March 5, 2021
Mid Atlantic Marine Fishery Councia
800 N State Street Suite 201
Dover, DE 19901
Attention: Dr. Christopher Moore, Executive Director
RE: Public Comment Summer Flounder, Scup and Black Seabass Allocation Amendment Dear Council Members.

We are submitting comments today in follow up to the webinar meeting. We have several comments, first the allocation of Black Seabass Quota. The akocation between Commercial and Recreational Industries was done in the early 90 's Commercial Fisheman had to qualify and apply for a permit, once the permits were issued the Black Seabass along with Fiounder and Scup became a moratorium permit. Which means no one could just enter the fishery. There is not a cap on Recreational fishing. Through the vears the commerciat hisherman suffered through coastwide quotas and then State by State. Even after is went State by Siate Commercial Fisherman stil! suffered through low trip limits, fimits to how many times a week you tan fish, and season closures. We have endured a lot over the years. Wanting more fish but told the science wasn'₹ there. We had to scratch to keep our business going. Henceforth today, after many, many, long years we have finally begun to receive the benefits of such suffering. Now there is an Addendum in progress in Which to take these fish away, how can this be justified? Your job is to protect the resource. in New lersey we are fanding our quota, other states may not, but this still doesn't justity zaking quota away. If commercial fisherman are not landing their quota isn't this a good thing for the resource? th builds sock does it not. Vou want to reward a sector wha has overfished for years by giving quota away. Fishing cisanges from year to year which I will get into when it comes to transferring of guota. We make a living on the water, I hear the recreational sector saying" if they're not able to fish this affects the bait shops and others". Well, if Commercial Fisherman cannot fish this effects Fish Markets, Restaurants and the generai public who rely on commercial fishing to eat a fresh fish, who do not have the luxury of going out on private boats or charter boats to catch fish. Think about it a second, Temessee, Ohio, Ilinois, indiana, and all the other states who do not have ocear access where are they getting their fish from? We represent the generat pubic.

Page 2 of 3
When you put this into context, the recreational fishery is in the minority. Other than your charter boats and even some of them have Monday through Friday from $9-5$ jobs somewhere else. We believe realocating quora to the recreational sector is a bandaid to the problem but mot the solution. The solution lies in looking at the recreational sector and solving its problems. We the Commercial Sector do not experience this because we have to call in 50 our quota is monitored daily, we have VTR reporting and we have weekly dealer reporting, ff we get close to landing our quota in any particular season we are shut down until the season can reopen again. Recreational Fisherman do not have any type of reporting tike this, so therefore overfishirg can occur and it doesn't matter how much quota they have. They do not have amy regulations on them other shan size limit and bag limit. The recreational fisthing industry needs to be revamped, for starters it can be done by fowering the size limit, discards become landed fish. To protect the resource you can't waste fish throwing back a perfectly nice size fish because it's $14^{\prime \prime}$ to $5 m$ all is fidiculous. Another thing you can look at is taking the recreational fish and dividing it up between the charter and the private skiffs, so they can conkinue to make a living. We sympathize with those who are trying to make a living on the water but those who fish in their private skiffs zo go out have a couple of beers catch a few fish shouldr't benefit from the sufferings of the commersial fishing industry,

Now to transfer of quota. We are against being able to transfer quota from one industry to the other this is not going to ga as easy as it sounds. What you are doing with this proposal is creating more problems, aren't there enough alreacy? You want to base transfering the amount of quota based on the landings of the previous year. Fishing changes from year to year, just because the previous year may have not been utilized doesn't mean the following year it coudr't be. There are many factors that can cause quota not being utilized. Lets look at the one we are all dealing with now COVID, the weather such as wind and storms, the water temperature if it is cold pushes the fish offshore and as a result your smaller commercial vessels may not be able to utize the quota. All this changes year to year. This carnot be done without some serious consequences to the conmercial fishing industry we are the ones on the losing end not the tecreational.

Finally, being able to make changes through a framework rather than an Addendum, we are againsi this too because being able to make these changes in a framework takes away the voice of the

## Page 3 of 3

people in the public comment portion of a bill. Everyone should have a voice. In close, we feel the Addendum should fail and everything should remain status quo with the council looking into what you can do to solve the problems with the recreational sector without punishing the commercial sectos. We have earned the fish and we showid keep them.


I W Commercial Fishing Inc.
www.RISAA.org

March 11, 2021

Chris Moore, Ph.D., Executive Director

Mid-Atlantic Fishery Management Council
800 North State Street, Suite 201
Dover, DE 19901

RE: Comments on Summer Flounder, Scup, Sea Bass Allocation Amendment
Dr. Moore and Council Members:
The Rhode Island Saltwater Anglers Association (RISAA) represents over 7,500 recreational anglers and 28 affiliate clubs in Connecticut, Massachusetts and Rhode Island, and we are pleased to take this opportunity to provide our comments on our preferred alternatives that are being considered under the current allocation amendment.

To begin, RISAA believes that reallocation is certainly necessary at this time, not only to update an equitable allocation based on recent fishing practices, but more importantly to rebalance allocation between commercial and recreational fishing that was recently changed dramatically by modifications to the estimating process used in MRIP.

These changes resulted in the increase of commercial quotas for fluke by $49 \%$ in 2019 and for black sea bass in 2020 by $51 \%$. This is because the new MRIP estimates increased the recreational landings estimates over the last 25 years by up to double previous estimates. This was without any new fishery data, but just the result of different estimating procedures. The higher landings estimates then led fisheries managers to conclude that there were more fish in the sea than thought, so landings could increase. Without reallocation this results in a significant, unjustified and unfair shift in allocation from recreational catch to commercial catch.

Regarding the specific alternatives under consideration RISAA offer the following comments:

1. All allocations should be determined on a Catch Basis. Since this approach includes splitting of allocation prior to reduction for dead discards this approach will give a greater incentive to each sector to properly track and make every possible effort to reduce dead discards because by doing so they will be in effect increasing the ability of that sector to increase effort and landings.
2. Allocation should be updated to include more recent years' data - to better reflect changes in the fisheries caused by shifting fish populations and changing effort in both the commercial and recreational sectors.
3. Based on comments 1 . and 2 . above, we recommend adoption of the following specific options:
a. For Summer Flounder we support option 1a-3 which is Catch Based and uses the most recent years data available (2014 to 2018).
b. For Scup we support option 1b-4 which is Catch Based and uses the most recent years available (2018/2019). We believe, for scup, the shift in allocation is further justified by the fact that the commercial sector fully utilizes their ability to harvest scup and have not reached the available catch limit due to market limitations. Portions of the recreational sector rely upon scup as a key food source and are currently restricted due to limits on recreational catch. This shift would more closely meet the objectives of the Magnuson Stevens Act by more fully utilizing the resource.
c. For Black Sea Bass we support option 1c-3. This option is again Catch Based and utilizes the most recent years of 2009 to 2018.
4. Regarding the issue of whether to phase-in reallocation changes over time we see two offsetting concepts. First, when considering that the primary reason for reallocation at this time is to reset the balance between commercial and recreational catch that was changed as a direct result of recent MRIP changes we believe that there should be no phase-in period. This is largely because the commercial quota increases that were improperly made for summer flounder in 2019 and for black sea bass in 2020 as a direct result of MRIP changes were instituted without any phase-in period. On the other hand, there is a component of this reallocation that is the result of updating catch history to new "base years". For this component we would suggest that there should be a phase-in period to reduce any sudden impacts to socioeconomic factors. As a result of these two offsetting concepts we support a Phase-in period of 2 years if all options recommended above are selected.
5. We remain generally opposed to transfers between sectors, however we are open to the idea of transfers to a limited extent. It seems that the effect of transfers is not fully understood. We therefore would suggest that before any transfers of quota are completed a detailed analysis of the potential impacts of those transfers on the biological status of fish populations should be completed.
6. Finally, regarding the Framework question, RISAA is aware that allocation is a very important issue and must be thoroughly considered prior to passage. This importance would suggest that allocation should continue to require an Amendment process rather than just a framework. The problem is that the current situation was caused when the basic estimating process used for decades to estimate recreational fishing catch was changed and this change resulted in major changes in commercial quota, effectively shifting allocation without adopting an amendment process. We support Status Quo on the issue of Frameworks however we also believe that any changes in annual catch limits greater than 5\% that result from basic changes in the procedures used to estimate catch should be delayed until allocation can be revisited after the effect of such changes can be determined.

Thank you for identifying the need for reallocation at this time and for conducting this process. As always it is a pleasure to comment on this proposed action and we welcome you to reach out to our organization at any time for clarification on any issue discussed above.

Sincerely,


President


Richard C. Hittinger
1st Vice President

From: Francesflt [francesflt@aol.com](mailto:francesflt@aol.com)
Sent: Friday, March 12, 2021 10:42 AM
To: Kiley Dancy
Subject: Fluke/Scup/Sea Bass Allocation Amendment

March 9, 2021

Chris Moore, Ph.D., Executive Director
Mid-Atlantic Fishery Management Council
800 North State Street, Suite 201
Dover, DE 19901
RE: Summer Flounder, Scup, Sea Bass Allocation Amendment

Dear Dr. Moore,
I would like to submit the following comments regarding the joint MAFMC/ASMFC Summer Flounder, Scup, and Black Sea Bass Commercial/Recreational Allocation Amendment. Many of which are similar to those submitted but the RIPCA.

Recent changes in how recreational catch is estimated have resulted in a big disconnect between the current levels of estimated recreational harvest and the allocations of summer flounder, scup, and black sea bass to the recreational sector. Importantly, the revised MRIP estimates were incorporated into the stock assessments for summer flounder in 2018 and for scup and black sea bass in 2019. The revised MRIP estimates are also used to evaluate recreational fishery performance, so updating the current allocations using the new data is critical.

Additionally, I feel an important need for this Amendment is to base conservation and management measures on the best scientific information available and increase net benefits to the Nation, consistent with the Magnuson-Stevens Fishery Conservation and Management Act and its National Standards.

The current allocations result in regulations that disenfranchise the fishing public, which is made up of a diverse demographic.

For example: The fore hire scup fishery is a very diverse group of anglers, made up of a majority of minorities. Tightening of regulations as a result of not reallocated could severally impact the precipitation for this group of minority anglers.

There seems to be a lot of outreach to the fishing public though websites, charter boat associations and fishing clubs. Most of the outreach that is done is not targeted to groups that could be impacted severally. When these anglers are finally made aware of the changes, it is too late. They do not have the chance to stand up and speak for or against a change. On top of that, it may be intimidating to speak at public meeting that are dominated by paid commercial lobbyists. The impact of these silent voices could be tremendous, however the only voices that speak for them seem to come from the fore hire industry.

For summer flounder, the revised MRIP recreational catch estimates were $30 \%$ higher on average compared to the previous estimates for 1981-2017. Higher recreational catch resulted in increased estimates of stock size compared to prior assessments. The new larger stock size resulted in a huge 49\% increase in the commercial quota and recreational harvest limit (RHL) for 2019. Projected recreational harvest using the new MRIP method ate up nearly all of the $49 \%$ increase in the RHL therefore, recreational measures could not be liberalized in 2019 despite the $49 \%$ increase in the RHL. Commercial Quota's increased by 49\%

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The recreational catch data have a lesser impact in the scup stock assessment model, with the 2019 operational stock assessment showing minor increases in biomass estimates compared to the 2015 assessment.

For black sea bass, the revised MRIP recreational catch estimates were $73 \%$ higher on average compared to the previous estimates for 1981-2017. Higher recreational catch resulted in increased estimates of stock size compared to prior assessments. The larger stock size resulted in a huge $59 \%$ increase in the commercial quota and recreational harvest limit (RHL) for 2020. Projected recreational harvest using the new MRIP method ate up nearly all of the 59\% increase in the RHL therefore, recreational measures could not be liberalized in 2020 despite the $59 \%$ increase in the RHL. Commercial Quota's increased by $59 \%$

The aged commercial/recreational allocation percentages as defined in the FMP for Summer Flounder, Scup, and Black Sea Bass do not reflect the current understanding of the historic, and more importantly recent, proportions of catch and landings from both the commercial and recreational sectors. Since allocations can only be changed by amending the FMP, we believe this amendment is critical at this time to correct the current allocations which were made using old and less accurate data. This amendment will allow the Council to meet National Standard 2 and set the Council and Commission up to use the Best Scientific Information Available in this FMP.

The first decision that I feel should be made is whether to use a catch-based or a landingsbased allocation approach. Taking this issue species by species, we recognize that Scup currently uses a catch-based approach and for simplicity we would support staying with a catch-based approach for Scup. For Summer Flounder, an opportunity exists to move to a catch-based approach from a landings-based approach. Catch-based approaches allow each sector to be accountable to its own dead discards which makes the most sense overall. For Black Sea Bass, the current Black Sea Bass stock assessment does not model landings and dead discards separately; therefore, calculations of total projected landings and dead discards for black sea bass cannot be informed by stock assessment projections. Instead, other methods, such as those based on recent year average proportions, must be used. This layer of complexity is important and draws us to support staying with a landings-based approach for Black Sea Bass.

### 4.1.1 Summer Flounder Allocation Alternatives

I support Alternative 1a-2: 43\% commercial, $57 \%$ recreational This alternative is supported by multiple approaches and it represents a shift to a catch-based allocation approach as a better way to hold each sector accountable to their own dead discards. This alternative will provide the commercial fleets with a quota that is above the average landings over the past four years and about a dollar a pound more in ex-vessel price. At the same time, the highly restricted recreational fishery may be able to liberalize regulations slightly for an improved experience and potentially increased revenues to the for-hire fleets.

### 4.1.2 Scup Allocation Alternatives

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### 4.1.3 Black Sea Bass Allocation Alternatives

I support Alternative 1c-6: 29\% commercial, $71 \%$ recreational. This alternative is supported by multiple approaches and it maintains the current landings-based allocation approach. As noted above, the current black sea bass stock assessment does not model landings and dead discards separately; therefore, we recommend continuing with the landings-based allocation approach used in this alternative. Alternative 1c-6 allows for a possible commercial quota under an ABC similar to 2020 that exceeds historic landings in all but 2 of the past 16 years. The recreational fishery, under this alternative, would have the potential to harvest at similar to slightly lower levels compared to recent years, avoiding draconian cuts that would be necessary without an allocation adjustment.

### 4.1.4 Allocation Change Phase-In Alternatives

I support Alternative 1d-1: No phase-in. We do not support a phase in period for allocation changes because the new recreational catch estimates are currently being used to evaluate the performance of the recreational fishery. Delaying the implementation of updated allocation percentages over some time frame will needlessly hurt the recreational fishing community and deprive the recreational fishery of valuable fishing opportunities.

### 4.2.1 Quota Transfer Process Alternatives <br> I support Alternative 2b.

### 4.3 Framework/Addendum Provision Alternatives

I support Alternative 3b: Allow changes to commercial/recreational allocations, annual quota transfers, and other measures included in this Amendment to be made through framework actions/addendum. This alternative would provide flexibility to the Council/Commission to adapt to new information in a timely fashion as it becomes available. This alternative would not preclude the Council/Commission from using the amendment process if impacts were to be determined to be significant.

Failure to make the necessary reallocation could result in a situation like we see in the Gulf of Maine Cod fishery, Where the recreation angler is held to little or no possession for most of the year.

Frank Blount
Frances Fleet
Point Judith, RI

To: Chris Moore, Ph.D. Executive Director
Mid-Atlantic Fishery Management Council
North State Street, Suite 201
Dover, DE 19901

From: Phil Simon, Ph.D.

Date: February 21, 2021

Subject: Comments regarding the draft amendment on Summer Flounder, Scup, and Black Sea Bass Commercial/Recreational Allocation

Dear Dr. Moore:
I am a recreational boat angler of 25+ years' experience with saltwater fishing, now fishing primarily the waters of Barnegat Bay and the Atlantic inshore grounds within 15 miles of the Barnegat Light. Besides fishing from my own or friends' private boats, I regularly fish from party boats and with charter boats. I am a member of and on the board of the Village Harbor Fishing Club (Manahawkin NJ), and I represent the club to and am an associate member of the Jersey Coast Anglers Association. I am also a member in good standing of ReClam the Bay, the American Association for the Advancement of Science, the American Littoral Society, the American Society for Microbiology, and the New York Academy of Sciences. My comments below represent my personal views and are not intended to represent the positions of any of the organizations listed above.

## Recommendations and Comments on the options for each species or question under consideration:

1. Summer Flounder. Option 1a-2: 43\% commercial, 57\% recreational. I believe this option is based on the broadest set of data, and I favor a catch-based allocation estimate, which favors efforts to reduce by-catch and discard mortality. From Figure 31 of the draft amendment full document, it would appear to have little or no impact on the size of commercial landings, although the shift to the catch-based system will certainly impact commercial methods and gear requirements to better reduce the impact of dead discards on the commercial quota. Federal and state assistance, both financial and technical, should be considered to ease the transition for the commercial sector.
I have heard arguments from the commercial sector calling for postponing or delaying any changes in allocation, based primarily on the argument that the data in hand are inadequate or insufficient to decide now. I have also heard arguments
that the council staff has too much to do and cannot work on this project and the (much needed) Recreational Reform Initiative at the same time. However it seems to me (1) the reallocation issue has been before us for years, and based on what we know now (and what we have suspected for some time) a re-adjustment is long overdue; (2) most of the heavy lifting by the technical committee and council staff, in terms of data collection and analysis, document preparation, solicitation of comments via webinars and other means will have already been completed shortly, and the timing of the reform initiative has a fair amount of associated uncertainty; (3) the concept that we will ever have the "right numbers" to work with in making these kinds of decisions is at best mis-conceived, and at worst magical thinking. All the numbers we use, whether it be stock assessments, fishing effort estimates, or recreational catch numbers are estimates, with huge standard deviations and numerous untestable assumptions going into the calculations. The recent huge changes in stock estimation, recreational catch, and quotas induced by the new MRIP methodology shows just how soft these numbers really are. My view is that we should pay attention to the trends these indices show us but using them as hard numbers for decision making is misplaced use of the information at hand. Thinking that a new set of numbers will somehow change everything just causes more kick-the-can behavior. More delays are not acceptable, and not good science. These arguments apply to all three species.

From the data in the draft amendment document, commercial landings of summer flounder have stayed relatively stable since the introduction of quotas, except for the last two years. In fact the ex-vessel value of the landings is virtually unchanged since 1994 (Figure 9). For the recreational sector however, fishing for summer flounder has increasingly become for many fisherman an exercise in futility, where the odds of coming home with anything "in the box" have become smaller over time. Throwing back so many fish leads to frustration; spending money on gas, tackle and bait, or on party boat or charter trips seems less and less worthwhile. Thus we have seen a sharp decline in the numbers of working party boats and charter captains, and a drop in overall business in the recreational sector. My sense is that without this reallocation, the squeeze will only worsen.
2. Scup: Option 1b-3: 61\% commercial, $\mathbf{3 9 \%}$ recreational, catch-based allocation. I do not fish for scup, as they are mostly out of my range where I fish. From the data in the draft document, all of the options appear to have a minimal impact on the commercial sector but maintaining the status quo under the new MRIP numbers would likely cause a severe drop in the landings of the recreational fishery. Unless this fishery is threatened by overfishing, this would be unjustified; if there is a danger to the stock, then reductions should be implemented across the board.
3. Black Sea Bass: Option 1c-1: 32\% commercial, 68\% recreational, catch-based. This option provides the least impact on the commercial landings while correcting for
the new information on historical catches by the two sectors. The biggest change of course is on the commercial approach to dead discards, which will have to improve to avoid declines in quota as mentioned above. The recreational community should also be encouraged to adopt measures that would help reduce dead discards.
4. Phase-in Alternatives: Option 1d-2: Allocation change evenly spread over $\mathbf{2}$ years. Allows for transitions without undue delay.
5. Annual Quota Transfer Alternatives: Option 2a: No action, status quo. Because this is a prime target for, well, quota run-arounds. Come back to this after we see how things are going.
6. Transfer Cap Alternatives: Option 2c:2: Maximum set at 5\%. See "5" above.
7. Framework/addendum provision alternatives: Option 3a: No action/status quo. Because I think public input should remain part of the process.

In summary, I favor catch-based allocations for all three species, total avoidance of the status quo measures, and absolutely no delay in the implementation of this amendment, which makes corrections on several issues that are long overdue.

# Jersey Coast Anglers Associatic Working for Marine Recreational Angfers 1694 Lakewood Road, Unit 13, Toms Rker, NJ 08756 <br> TEL: 732-506-6565 - FAX: 732-506-6975 

3/15/21
ASMFC and MAFMC,
The Jersey Coast Anglers Association represents approximately 75 fishing clubs throughout our state and we appreciate this opportunity to comment on the Summer Flounder, Scup and Black Sea bass Allocation Amendment. We would like to start with a little history. Back in the 1970's it was widely accepted that recreational fishermen accounted for a much higher percentage of the catch and landings of fluke, scup and sea bass than the commercial fishermen. Eventually it was decided that quotas needed to be established and that percentages of the allocation would be split between the commercial and recreational sectors. However, regarding fluke the NMFS numbers were used by ASMFC/MAFMC in setting up the base years that favored the commercial fishermen after they had devastated the stock. This occurred because during the fall and winter, commercial fishermen found that the fluke were concentrated far offshore near the continental shelf. NMFS then approved a $60 / 40$ split favoring the commercial fishermen when the split should have been the other way around and based on historical data. Recreational fishermen were given the short end of the stick back then and the problem only compounded over the years. Imagine how many more fish the recreational sector would have accounted for had the quotas been fairly assigned and regulations had not become so restrictive over the years. It is because of this that JCAA believes that even the most favorable options for recreational fishermen in the amendment are insufficient.

However, in 2018 the MRIP numbers were recalculated, and the revised estimates revealed that the recreational fishermen had caught far more fish than originally believed going back to 1981. That in turn caused our fisheries managers to conclude that the stock biomass for fluke, scup and sea bass was significantly higher than the previous estimates had shown. Regarding fluke, the higher biomass estimate resulted in a $49 \%$ increase in the quota for commercial fishermen and a $49 \%$ increase in the RHL for recreational fishermen. However, regulations for recreational fishermen could not liberalized because the previous year's landings estimate indicated they were already equal to the 2019 RHL. The allocation
percentages for all three species do not reflect the current understanding of the recent and historic proportions of catch and landings between the two sectors. In other words, the heart of the problem is that though the revised data revealed that recreational fishermen were responsible for a much higher percentage of the catch, the split between the two sectors could not be changed without an amendment. We now have this amendment before us and that is why you must act to rectify this situation as soon as possible.

Regarding the amendment itself we would like to make the following recommendations:

As good stewards of the resources we recommend catch based allocations for all three species. This method gives incentive for both commercial and recreational fishermen to reduce their dead discards as there may be an opportunity to increase their landings if they are able to do so.

Though we passionately believe that all of the proposed percentage increases of the RHL for recreational fishermen are insufficient, we recommend the following:

Fluke - Option 1a-3 ( $60 \%$ recreational $40 \%$ commercial)
Scup - Option 1b-4 (59\% commercial 41\% recreational) provided a catchbased approach is chosen. If a landings-based approach is chosen we support options 1b-7 ( $50 \%$ commercial $50 \%$ recreational) as it would provide the most benefit to the recreational sector in the form of higher angler satisfaction, greater economic opportunity and more revenue for the for-hire sector compared to other allocation alternatives.

Sea Bass - Option 1c-3 (76\% recreational $24 \%$ commercial)
Regarding phase-in alternatives, we recommend immediate implementation and certainly no more than two years. By not correcting this problem as soon as possible, the catch and landings numbers would be skewed favoring the commercial fishermen during the years before full implementation takes place. Then in the future, these years might be used in management decisions and once again recreational fishermen would end up with the short end of the stick. In fact, it is a shame that the new MRIP data and allocation changes were not done at the same time. The commercial sector was given larger quotas than they should not have been given and now they do not want to give it back. Most don't even understand the problem.

Lastly, we are opposed to quota transfers between the sectors.

Respectfully submitted,

[^15]From: Frank Blume [frankblume@sbcglobal.net](mailto:frankblume@sbcglobal.net)<br>Sent: Sunday, March 14, 2021 4:23 PM<br>To:<br>Leaning, Dustin Colson; Kiley Dancy<br>oceanburial@aol.com; btolhurst@aol.com; myden52585@aol.com; isholach@sbcglobal.net; tbull640 @sbcglobal.net; walter.leckowicz@gmail.com<br>Subject: Commercial/Recreational Allocation Amendment

Dear Sir:
Below are my thoughts on fishing reallocation:
First of all, the catch reporting method used here in Connecticut is not accurate. Far from it. It is my understanding that catch reporting is done by a state employee going down to a boat launch area and will count the number of parked boat trailers. In the afternoon they interview a small percentage of returning fishermen. These are probably the most successful fishermen or they would likely be still out there. They then multiply the catch from this small percentage of fishermen by the number of empty trailers! (Yes, I can't believe it either.) This does not take into consideration the number of boats that left the launch area to go swimming at a favorite spot or to go clamming or to go to visit friends at Block Island, Montauk Point or Fishers Island. Some people go to a favorite spot and raft up with a group of friends to picnic, swim, etc.
I have been a charter captain for over 35 years, a recreational fisherman and a commercial rod and reel fishermen for longer than that. During those years I have chartered out of different ports in our surrounding states, Massachusetts, Rhode Island and Connecticut. In my opinion, to better look after our current fish numbers and changes that may be needed you should be looking at commercial fishermen. That's where the waste and over fishing occur most! I have heard from fellow fishermen returning from offshore fishing that they have encountered acres and acres of belly-up, floating Striped Bass. Where do you think these came from? Dragger's are responsible for the shortage of nearly all species. When I fished out of Massachusetts about 10 or 12 years ago I was told by fellow fishermen up there that 5 large dragger's from Rhode Island came up to Stellwagen Bank in early spring and wiped out all the incoming spawning Cod. In previous years we would limit out by noon and return to port. That spring we would catch less than 10 all day. That fishery has been closed down and is now back to about where it was prior to the dragger's raping the fishing grounds but it took 10 years.

As a charter captain I will not take groups out for Fluke fishing. Why? Because they average catch out of Connecticut is 1 or 2 keepers at or around 19" and about a dozen or so short Fluke. Why is this you ask? Because the dragger's have been out all night vacuuming the fishing grounds. They leave the grounds around 3 or 4 in the morning. At 5 am or shortly thereafter, the recreational fisherman goes out to the same area and catches a few shorts and maybe a keeper. The last successful fluke fishing trip I had was about 20 years ago. New York was open, Connecticut was not. I had a group that wanted to catch some fluke. We went to Montauk and caught a good number of some nice size fluke. After filleting them I docked in Fishers Island, NY and left them with a friend. I then met him there 2 weeks later when Connecticut opened and picked up the fish.
This year after the Connecticut commercial Fluke fishing had closed, a state much larger than ours about 300 miles south of Connecticut had caught about half of their Fluke catch allocation. What did our fish management do? They gave Connecticut their unused allocation! It took the whole season for Connecticut commercial fishermen to reach their quota while the recreational fishermen caught only half of theirs. There is a reason the state south of us had not fill their allocation. There is either a very large amount of fluke in their area or a shortage of fishing boats. Does this reallocation make any sense? ABSOLUTELY NOT! Connecticut had an allocation based on the amount of fish in their area. Increasing the Connecticut quota was a very poor decision in my opinion!
You may ask...why does something like this happen? You can thank our politicians. It's as simple as that. Here's how it works. Commercial fishermen sell their catch to a co-op, a small portion of every sale goes into a "Political Action" fund. Then when elections come up, a generous donation goes to those incumbent U.S. Senators and other law makers. Those senators then vote for whatever their donators wish. Not what's best for our fisheries!
What we need in this area, the area east of the Connecticut river and south of Fishers Island to the Rhode Island border, is some artificial reefs. New York is in the process of building these now but not as far east as the fore mentioned area. These artificial reefs would give many fish a haven from these all-night draggers!

Sincerely,
Captain Frank Blume
Colchester, CT

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From: SCOTT LUNDBERG <reelsportfishing@aol.com>
Sent: Saturday, March 13, 2021 2:44 PM
To: Kiley Dancy
Subject: Fluke/Scup/Sea Bass Allocation Amendment Comments
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Reel to Reel Sportfishing LLC
PO Box 637
Slatersville, R.I. 02876

Chris Moore, Ph.D., Executive Director

Mid-Atlantic Fishery Management Council
800 North State Street, Suite 201
Dover, DE 19901
RE: Summer Flounder, Scup, Sea Bass Allocation Amendment

Dear Dr. Moore,
I would like to submit the following comments regarding the joint MAFMC/ASMFC Summer Flounder, Scup, and Black Sea Bass Commercial/Recreational Allocation Amendment.

I agree with the purpose and the need for this amendment before the Council and Commission. Recent changes in how recreational catch is estimated have resulted in a big disconnect between the current levels of estimated recreational harvest and the allocations of summer flounder, scup, and black sea bass to the recreational sector. Importantly, the revised MRIP estimates were incorporated into the stock assessments for summer flounder in 2018 and for scup and black sea bass in 2019.The revised MRIP estimates are also used to evaluate recreational fishery performance, so updating the current allocations using the new data is critical.

Additionally, I feel an important need for this Amendment is to base conservation and management measures on the best scientific information available (BSIA) and increase net benefits to the Nation, consistent with the MagnusonStevens Fishery Conservation and Management Act and its National Standards.

For summer flounder, the revised MRIP recreational catch estimates were $30 \%$ higher on average compared to the previous estimates for 1981-2017. Higher recreation_catch resulted in increased estimates of stock size compared to prior assessments. The new larger stock size resulted in a huge $49 \%$ increase in the commercial quota and recreational harvest limit (RHL) for 2019. Projected recreational harvest using the new MRIP method ate up nearly all of the 49\% increase in the RHL, therefore, recreational measures could not be liberalized in 2019 despite the $49 \%$ increase in the RHL. Commercial Quota's increased by $49 \%$

For scup, the revised MRIP recreational catch estimates were $18 \%$ higher on average compared to the previous estimates for 1981-2017.The differences between the previous and revised estimates were greater in more recent years compared to earlier years. The recreational catch data had a lesser impact in the scup stock assessment model, with the 2019 operational stock assessment showing minor increases in biomass estimates compared to the 2015 assessment.

For black sea bass, the revised MRIP recreational catch estimates were $73 \%$ higher on average compared to the previous estimates for 1981-2017.Higher recreational catch resulted in increased estimates of stock size compared to
prior assessments. The larger stock size resulted in a huge $59 \%$ increase in the commercial quota and recreational harvest limit (RHL) for 2020. Projected recreational harvest using the new MRIP method ate up nearly all of the $59 \%$ increase in the RHL therefore; recreational measures could not be liberalized in 2020 despite the $59 \%$ increase in the RHL. Commercial Quota's increased by 59\%

The aged commercial/recreational allocation percentages as defined in the FMP for Summer Flounder, Scup, and Black Sea Bass do not reflect the current understanding of the historic, and equally important, recent proportions of catch and landings from both the commercial and recreational sectors. Since allocations can only be changed by amending the FMP. I believe this amendment is critical at this time to correct the current allocations which were made using old and less accurate data. This amendment will allow the Council to address National Standard 2 and set the Council and Commission up to use the Best Scientific Information Available in this FMP.

Due to the current uncertainty and lack of available specifics relative to the MAFMC/ASMFC recreational reform initiative, it is unclear how delaying an allocation decision in favor of unknown recreational reform makes any sense at all. Without clear recreational reform alternatives to review, the logical first step would be to finalize this allocation amendment under the timeline described in the Draft Amendment for Public Comment. Delaying this action has the very real implication of hurting the recreational fishery in FY 2022 and 2023. Any work on the recreational reform initiative should continue according to the existing schedule and the entire recreational reform process will be better served informed by the new allocations based on BSIA.

The first decision that I feel should be made is whether to use a catch-based or a landings-based allocation approach. Catch-based allocation approaches allow each sector to be accountable to its own dead discards which makes the most sense overall. The commercial and recreational fisheries are vastly different, and they are managed with different tools. Holding each sector accountable to their own discards across all three species is a clean and consistent approach to take. This amendment offers the chance to make the commonsense change to catch based allocation, creating incentives for both fisheries to improve by catch rates and or mortality of by catch as required in National Standard 9.

### 4.1.1 Summer Flounder Allocation Alternatives

I support Alternative 1a-2: 43\% commercial, $57 \%$ recreational This alternative is supported by multiple approaches and it represents a shift to a catch-based allocation approach as a better way to hold each sector accountable to their own dead discards. This alternative will provide the commercial fleets with a quota that is above the average landings over the past four years and potentially a dollar a pound more in ex-vessel price. At the same time, the highly restricted recreational fishery may be able to liberalize regulations slightly for an improved experience and potentially increased revenues to the for-hire fleets.

### 4.1.2 Scup Allocation Alternatives

I support Alternative $1 \mathrm{~b}-3: 61 \%$ commercial, $39 \%$ recreational. This alternative is supported by multiple approaches and it maintains the current catch-based allocation approach as the best way to hold each sector accountable to their own dead discards. This alternative would provide the commercial fleets with an allocation that would allow them to land scup at the current levels and higher, while maintaining ex-vessel pricing. The recreational fishery, under this alternative, would have the potential to harvest at similar levels to recent years, avoiding draconian cuts that would be necessary without an allocation adjustment.

### 4.1.3 Black Sea Bass Allocation Alternatives

I support Alternative1c-2: 28\% commercial, $72 \%$ recreational. This alternative uses a broad time series to capture historical and modern fishing efforts of both the commercial and recreational fisheries. Alternative $1 \mathrm{c}-2$ allows for a possible commercial quota under an ABC similar to 2020 that exceeds historic landings in all but 4 of the past 16 years. The recreational fishery, under this alternative, would have the potential to harvest at similar to slightly lower levels compared to an average of recent years, avoiding draconian cuts that would be necessary without an allocation adjustment.

### 4.1.4 Allocation Change Phase-In Alternatives

I support Alternative 1d-1: No phase-in. We do not support a phase in period for allocation changes because the new recreational catch estimates are currently being used in whole to evaluate the performance of the recreational fishery. Delaying the implementation of updated allocation percentages over some time frame will needlessly hurt the recreational fishing community and deprive the recreational fishery of valuable fishing opportunities.

### 4.2.1 Quota Transfer Process Alternatives

I support the consideration of a transfer program between commercial and recreational fisheries. We suggest a cap of 5 to 10 percent of the ABC. As circumstances vary from year to year, we would suggest any transfer be part of annual specification stetting process that would allow the council and commission to assess the impacts of any transfer under those varying circumstances. An automatic and prescribed transfer could be problematic without the opportunity for the public, staff, and the council and commission board to weigh in.

### 4.3 Framework/Addendum Provision Alternatives

I support Alternative 3b: Allow changes to commercial/recreational allocations and other measures included in this Amendment to be made through framework actions/addenda. This alternative would provide flexibility to the Council/Commission to adapt to new information in a timely fashion as it becomes available. This alternative would not preclude the Council/Commission from using the amendment process if potential impacts are determined to be significant.

Thank you for the chance to offer my comments on this very consequential amendment. The future of the for-hire industry is hanging in the balance. A fair and scientifically sound re-allocation followed by thoughtful recreational reform will help to preserve our fleet for the long term, allowing the non-boat owning public meaningful access to Summer Flounder, Scup, and Black Sea Bass.

Sincerely Yours,


Reel to Reel Sportfishing LLC
PO Box 637
Slatersville, R.I. 02876

Sent from Mail for Windows 10

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From: Capt. TJ Karbowski <tedkarbowski@yahoo.com>
Sent: Saturday, March 13, 2021 8:06 AM
To: Kiley Dancy
Subject: Reallocation Comments
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Status Quo.
Reallocation is not necessary.
"New MRIP" is the problem. This new math (that literally is not possible), has discredited the ASMFC and has turned the regulation process into a joke.

The ASMFC has adopted "New MRIP" and weaponized its false statistics because the leadership has created a culture which views recreational fishing as the enemy. The employees are on a crusade to save the oceans from the Neanderthal and deplorable recreational fishermen. It's the only logical explanation besides gross incompetence.

If the ASMFC were a private sector business they would be filing for bankruptcy in 3 weeks due being run by LACK OF COMMON SENSE.

During a webinar last week, after first sighting an example in Connecticut of 112,000 Black Sea Bass being harvested during 2019 Wave 6 (literally impossible). I was cut off by Dustin Leaning while speaking the $2^{\text {nd }}$ time. He was sick of hearing the truth because I was sighting an example of Connecticut's ludicrous bluefish numbers. I then switched to summer flounder numbers of 5,500 harvested during the month of September 2019 FROM SHORE. (Anyone with a brain knows this is impossible also.) I followed that up by giving the 60+ members in attendance the opportunity to speak up if they actually had ANY confidence in the new MRIP numbers; not a single person spoke up.

How can we be expected to comply with numbers that those in charge will not even publicly admit they have confidence in? This is insane.

Without credibility no one will ever believe or follow the regulations. Have you ever heard the story of "The boy who cried wolf"? That's the current situation with the "New MRIP".

I am a conservationalist, I wish I could never kill another fish again, but being in the charter fishing industry that just isn't reality. I stand by principals of ecosystem management and having a healthy predator/prey ratio but the methods that are now being used are counter productive. These insane proposed cuts of ( $60 \%$ ) sea bass ( $40 \%$ ) scup are totally unwarranted. Anyone who has actually spent any time on the water can poke holes in almost every statistic of the new MRIP and if more people were paying attention, the discrediting of "New MRIP" would be on the prime time news.

Thank you,
Capt. TJ Karbowski
Rock \& Roll Charters
Clinton, CT
203.314.3765
https://rockandrollcharters.com/


March 11, 2021

Chris Moore, Ph.D., Executive Director
Mid-Atlantic Fishery Management Council
800 North State Street, Suite 201
Dover, DE 19901
RE: Summer Flounder, Scup, Sea Bass Allocation Amendment

Dear Dr. Moore,

On behalf of the 60 members of the R.I. Party and Charter Boat Association, I would like to submit the following comments regarding the joint MAFMC/ASMFC Summer Flounder, Scup, and Black Sea Bass Commercial/Recreational Allocation Amendment.

We agree with the purpose and the need for this amendment before the Council and Commission. Recent changes in how recreational catch is estimated have resulted in a big disconnect between the current levels of estimated recreational harvest and the allocations of summer flounder, scup, and black sea bass to the recreational sector. Importantly, the revised MRIP estimates were incorporated into the stock assessments for summer flounder in 2018 and for scup and black sea bass in 2019. The revised MRIP estimates are also used to evaluate recreational fishery performance, so updating the current allocations using the new data is critical.

Additionally, we feel an important need for this Amendment is to base conservation and management measures on the best scientific information available (BSIA) and increase net benefits to the Nation, consistent with the Magnuson-Stevens Fishery Conservation and Management Act and its National Standards.

For summer flounder, the revised MRIP recreational catch estimates were $30 \%$ higher on average compared to the previous estimates for 1981-2017. Higher recreational catch resulted in increased estimates of stock size compared to prior assessments. The new larger stock size resulted in a huge $49 \%$ increase in the commercial quota and recreational harvest limit (RHL) for 2019. Projected recreational harvest using the new MRIP method ate up nearly all of the $49 \%$ increase in the RHL therefore, recreational measures could not be liberalized in 2019 despite the $49 \%$ increase in the RHL. Commercial Quota's increased by $49 \%$

For scup, the revised MRIP recreational catch estimates were $18 \%$ higher on average compared to the previous estimates for 1981-2017. The differences between the previous and revised estimates were greater in more recent years compared to earlier years. The recreational catch data have a lesser impact in the scup stock assessment model, with the 2019 operational stock assessment showing minor increases in biomass estimates compared to the 2015 assessment.

For black sea bass, the revised MRIP recreational catch estimates were $73 \%$ higher on average compared to the previous estimates for 1981-2017. Higher recreational catch resulted in increased estimates of stock size compared to prior assessments. The larger stock size resulted in a huge $59 \%$ increase in the commercial quota and recreational harvest limit (RHL) for 2020. Projected recreational harvest using the new MRIP method ate up nearly all of the $59 \%$ increase in the RHL therefore, recreational measures could not be liberalized in 2020 despite the $59 \%$ increase in the RHL. Commercial Quota's increased by $59 \%$

The aged commercial/recreational allocation percentages as defined in the FMP for Summer Flounder, Scup, and Black Sea Bass do not reflect the current understanding of the historic, and equally important, recent proportions of catch and landings from both the commercial and recreational sectors. Since allocations can only be changed by amending the FMP, we believe this amendment is critical at this time to correct the current allocations which were made using old and less accurate data. This amendment will allow the Council to address National Standard 2 and set the Council and Commission up to use the Best Scientific Information Available in this FMP.

Due to the current uncertainty and lack of available specifics relative to the MAFMC/ASMFC recreational reform initiative, it is unclear how delaying an allocation decision in favor of unknown recreational reform makes any sense at all. Without clear recreational reform alternatives to review, the logical first step would be to finalize this allocation amendment under the timeline described in the Draft Amendment for Public Comment. Delaying this action has the very real implication of hurting the recreational fishery in FY 2022 and 2023. Work on the recreational reform initiative should continue according to the existing timeline and the entire recreational reform process will be better informed by the new allocations based on BSIA.

The first decision that we feel should be made for this amendment is whether to use a catch-based or a landingsbased allocation approach. Catch-based allocation approaches allow each sector to be accountable to its own dead discards which makes the most sense overall. The commercial and recreational fisheries are vastly different, and they are managed with different tools. Holding each sector accountable to their own discards across all three species is a clean and consistent approach to take. This amendment offers the chance to make the commonsense change to catch based allocation across the three species, creating incentives for both fisheries to improve bycatch rates and or mortality of bycatch as required in National Standard 9.

### 4.1.1 Summer Flounder Allocation Alternatives

The RIPCBA supports Alternative 1a-2: 43\% commercial, $57 \%$ recreational This alternative is supported by multiple approaches and it represents a shift to a catch-based allocation approach as a better way to hold each sector accountable to their own dead discards. This alternative will provide the commercial fleets with a quota that is above the average landings over the past four years while maintaining ex-vessel prices. At the same time, the highly restricted recreational fishery may be able to liberalize regulations slightly for an improved experience and potentially increased revenues to the for-hire fleets.

### 4.1.2 Scup Allocation Alternatives

The RIPCBA supports Alternative $1 \mathrm{~b}-3$ : $61 \%$ commercial, $39 \%$ recreational. This alternative is supported by multiple approaches and it maintains the current catch-based allocation approach as the best way to hold each sector accountable to their own dead discards. This alternative would provide the commercial fleets with an allocation that would allow them to land scup at the current levels and higher, while maintaining ex-vessel pricing. The recreational fishery, under this alternative, would have the potential to harvest at similar levels to recent years, avoiding draconian cuts that would be necessary without an allocation adjustment.

### 4.1.3 Black Sea Bass Allocation Alternatives

The RIPCBA supports Alternative 1c-2: $28 \%$ commercial, $72 \%$ recreational. This alternative uses a broad time series to capture historical and modern fishing efforts of both the commercial and recreational fisheries. Alternative 1c-2 allows for a possible commercial quota under an ABC similar to 2020 that exceeds historic landings in all but 4 of the past 16 years. The recreational fishery, under this alternative, would have the potential to harvest at similar to slightly lower levels compared to an average of recent years, avoiding draconian cuts that would be necessary without an allocation adjustment.

### 4.1.4 Allocation Change Phase-In Alternatives

The RIPCBA supports Alternative 1d-1: No phase-in. We do not support a phase in period for allocation changes because the new recreational catch estimates are currently being used in whole to evaluate the performance of the recreational fishery. Delaying the implementation of updated allocation percentages over some time frame will needlessly hurt the recreational fishing community and deprive the recreational fishery of valuable fishing opportunities.

### 4.2.1 Quota Transfer Process Alternatives

The RIPCBA supports the consideration of a transfer program between commercial and recreational fisheries. We suggest a cap of 5 to 10 percent of the ABC . As circumstances vary from year to year, we would suggest any transfer be part of annual specification setting process that would allow the council and commission to assess the impacts of any transfer under those varying circumstances. An automatic and prescribed transfer could be problematic without the opportunity for the public, staff, and the council and commission board to weigh in.

### 4.3 Framework/Addendum Provision Alternatives

The RIPCBA supports Alternative 3b: Allow changes to commercial/recreational allocations and other measures included in this Amendment to be made through framework actions/addenda. This alternative would provide flexibility to the Council/Commission to adapt to new information in a timely fashion as it becomes available. This alternative would not preclude the Council/Commission from using the amendment process if potential impacts are determined to be significant.

Thank you for the chance to offer our comments on this very consequential amendment. The future of the forhire industry is hanging in the balance. A fair and science based re-allocation, followed by thoughtful recreational reform, will help to preserve our fleet for the long term thus allowing meaningful access to Summer Flounder, Scup, and Black Sea Bass for the non-boat owning public.

Respectfully Submitted,

## Capt. Rick Bellavance

Capt. Rick Bellavance, President
RI Party and Charter Boat Association

March 15, 2021
Dr. Moore and Council Members,

I am writing as president of the Cape Cod Salties Sportfishing Club, with approximately 200 family memberships of recreational fisherpeople, to comment on the alternatives being considered under the allocation amendment. We are a diverse club, with members who fish from shore, boat, kayak, head boat and six pack charter, mainly in the Northeast. Our members are older, and the many acronyms and abbreviations used in the documents and hearings can make it challenging to respond to the issues, but we all agree on the need to maintain a healthy fishery. I am also affiliated with RISAA and the American Saltwater Guides Association.

We agree with the process of reallocation, mainly to reset the imbalance between commercial and recreational fishing caused by MRIP modifications to the existing practices. Higher landings estimates based on old data caused the number of landings to increase unreasonably. The result was a large shift in allocation from recreational to commercial catch.

We feel that all allocations should be determined on a Catch Basis, reflecting data from very recent years. Here are our comments on specific alternatives being considered.

## 1. For Summer Flounder, we support option 1a-3: a Catch Based option using recent data from 2014-2018.

2. For Scup, we support option 1b-4: a Catch Based option using data from 2018-2019.
3. For Black Sea Bass, we support Option 1c-3: a Catch Based option using data from 2009-2018.

Three other related points:

- Although making changes with no phase-in period might be a shock to some sectors, we support no phase in period.
- We would be open to limited transfers between sectors if recent backup data has been gathered to support the transfer.
- We support Status Quo on the Frameworks issue.

I must say that making these decisions with all this gathered information is difficult without one side or the other having some sort of consequence. But I truly believe that the fish belong to everyone, not one sector or group. I believe this can all be worked out with professionalism, with the final goal being to have the fishery be as healthy as possible now and in the future, not just while I am a participant.

Sincerely,
Jack Creighton

| From: | Christian Scola [scolathecrab@yahoo.com](mailto:scolathecrab@yahoo.com) |
| :--- | :--- |
| Sent: | Monday, March 15, 2021 10:04 AM |
| To: | Kiley Dancy |
| Subject: | Quota Transfer |

## To Whom It May Concern

My name is Chris Scola , I'm owner and operator of the day scalloper Rock \& Roll III out of Montauk NY, and my wife and I operate a small scale retail stand called Montauk Scallop \& Fish Company, where we sell our catch and that of other fishermen at green markets on Long Island and NYC as well as a home delivery service .I am also a member of the East Hampton Fisheries Advisory Committee. I've participated in most fisheries on Long Island since I began my career in 1991.

Although I support recreational fishing I cannot support any transfer of quota for any species from the commercial to recreational sector. The fish we catch are a shared resource owned by the public, and the overwhelming majority of seafood consumers rely on commercial fishermen for access to this resource . I know from experience that consumers feel deprived when I have to tell them that fishing for their favorite species is closed for misguided management reasons and not a lack of the resource. Since the beginning of COVID consumers have sought out local seafood as a safe alternative to mass produced live stock and foreign imports . As a country we should consider our fishing industry a strategic asset that should be promoted and protected . By all accounts retail seafood prospered during the lockdown. This misguided attempt at equity really equates to privatizing a common resource by giving too much to a minority that has the wealth, time, skill, and resources to harvest food for recreation. This recreational sector continues to be held unaccountable for overages while the commercial sector is accountable almost to the ounce. While I feel badly for the For Hire sector I feel they should be managed as a commercial fishery that gives the average person an opportunity to catch their own fish .
I feel the only action that should be taken is status quo. Any transfer in quota will unfairly harm fishermen, pack out docks, wholesalers, retailers , and restaurants, all of whom have suffered devastating losses due to COVID ,all while the recreational sector has grown. This sector should not be punished because thus far the recreational fleet has been held unaccountable for exceeding their quota's. I will support an amendment that transfers discards into landings. The transfer that is currently proposed will only turn commercial landings into recreational discards, and that is a disgusting waste of our resources .

## Regards

Chris Scola
East Hampton NY

All claims for returns or adjustments, MUST be made within 24 hours of delivery

March 15, 2021
Mid-Atlantic Fishery Management Council
800 North State Street
Dover, DE 19901
To Whom it May Concern:
We are a wholesale/retail fish market based out of Cutchogue, New York and we strongly disagree with changing allocation of scup, black sea bass and fluke for recreational fishers. New York can not afford to lose more commercial quota in these fisheries as it would have a devasting effect on our business, the commercial fisherman and the restaurants that support us.

Very truly yours,


| From: | Dennis Dillon [persuaderboat1@gmail.com](mailto:persuaderboat1@gmail.com) |
| :--- | :--- |
| Sent: | Monday, March 15, 2021 1:55 PM |
| To: | Kiley Dancy |
| Subject: | Summer Flounder, Scup and Black Sea Bass Allocation Amendment |

March 15, 2021

Chris Moore, Ph.D., Executive Director
Mid-Atlantic Fishery Management Council
800 North State Street, Suite 201
Dover, DE 19901
RE: Summer Flounder, Scup, Sea Bass Allocation Amendment

Dear Dr. Moore

My name is Dennis Dillon, and I am the owner/operator of the charter boat Persuader II out of Point Judith, RI. The purpose of this email is to comment on the Summer Flounder, Scup, and Black Sea Bass Commercial/Recreational Allocation Amendment.

The Fisheries Council and Commissions have been collecting data supplied by me for several years. It was always my impression that the data I gave helped manage the fisheries I participate in my charter fishing operation. The information I reported is catch-based by me, the captain/owner-operator. The data is considerably more valid than my clients' data when interviewed by a dock-side recreational surveyor. My information accounts for catch and "live" fish discard. The landings-based approach, although accurate in commercial landings, is inaccurate in a cull. Commercial discards are attained partly by estimation and then other mathematical models. Commercial discard estimations are "dead" fish discards.

As researchers, I know it isn't easy to handle fishery data from various sectors that use different reporting methods. It would seem that the fairest allocation process is the one that utilizes multiple approaches to determine the basis. Or has several years of landings as its basis Thus, I would recommend the following:

### 4.1.1. Table 2: Summer Flounder Catch Based Alternative 1a-2: 43\% Commercial, 57\%

Recreational. This alternative is supported by multiple approaches. The Commercial industry has not reached its quota in several years, while the recreational sector has lived with restrictions and regulations that limit our allocation. It would help my business considerably if I could keep a few more fluke for my customers.
4.1.2 Table 3: Scup Catch Based Alternative 1b-3: 61\% Commercial, 39\% Recreational. This alternative is also supported by multiple approaches and seems to allow both sectors an opportunity to maintain their fisheries or not be subject to huge cuts in allocations.

Table 4: Black Sea Bass Catch Based Alternative 1c-2: 28\% Commercial, 72\% Recreational. I would have preferred a Multiple Approach in the Black Sea Bass Alternative described in Flounder and Scup Catch Based Alternatives. Since that was not an available Alternative, I supported the basis with the most extended base years 1c-2.

Table 8: Allocation Change Phase-In Alternatives 1d-1; No phase-in. I'm not comfortable with phasing in allocations when the data used seems based on estimates over time. Waiting for data to come in while delaying allocations would most definitely hurt my business. I need to tell my customers what, when and how many fish they can catch. That info needs to be at the beginning of the season.

Table 14: Annual Quota Transfer Alternatives 2b. This alternative makes sense and is fair. If one sector has not reached its quota, then transferring to another industry is equitable.

Table 16: Annual Quota Transfer Cap Alternative 2c-3. I think it is fair to allow sectors to transfer allocations up to a maximum cap of $10 \%$. Fishermen do not have to catch every fish permitted in any given year.

Table 18: Framework/Addendum Provision Alternative 3b. Allow changes to commercial/recreational allocations, annual quota transfers, and other measures in this amendment to be made through framework actions/addenda. Fisheries management needs to have a framework for operating. This framework is in place, manages, and makes decisions. It needs to continue, and it needs to be tweaked while it continues.

Thank you for providing me with an opportunity to comment on this Commercial/Recreational Allocation Amendment. It is a crucial amendment that will have a profound bearing on my for-hire business in the future and I recommend that the council act on it without delay. It is unfortunate that my for-hire business, which requires me to submit catch-based landings data, is clumped into the recreational sector to determine, in part, the recreational sector allocation.

It appears that the discard issue is a significant factor in comprising fishery sector allocations. I would prefer to have data from the for-hire industry be used for the for-hire sector. That data is not an estimate it is catch and "live" discard based and, as such, is the best available data supplied to Management Councils/Commissions.

Sincerely,
Captain
Dillon


Dr. Christopher Moore, Executive Director
Mid-Atlantic Fishery Management Council
800 North State Street, Suite 201
Dover, DE 19901

## Dr. Moore:

Thank you for this opportunity to write to you as requested by the Public Hearing Webinars for Summer Flounder, Scup and Black Sea Bass e-mail dated February 23, 2021. In the past I have attended several of your "town hall" meetings and found them to be informative and well-run. I was however reluctant to say or contribute anything because I am NOT a scientist or expert in the field of fisheries management.

My wife and I retired to the Ocean City area 6 years ago. I retired from the Marine Corps after 26 years and the FAA after 20 years. My wife is a retired high school assistant-principal. We lived in northern Virginia and maintained a home in Ocean Pines (Berlin) for 25 years before building our retirement home here. We looked forward to retiring on Delmarva for the beaches and aquatic activities, fishing in particular. I've owned a boat and fished the waters of coastal Maryland since 1993. I've hunted and fished, both fresh and salt water since I was 10 years old. $\qquad$ around 58 years.
I am glad to be originally from central New Jersey. When I was a young man Trenton had 5 steel plants, 4 rubber plants, Lennox China, American Standard and a host of other industrial manufacturing facilities. I say this because I want you to know that I have seen first hand environmental devastation and its effects, particularly to our waterways and oceans. Both the Delaware and Potomac Rivers were cesspools for many years. The PCBs and heavy metals are trapped in the silt of the rivers and cannot be disturbed. The Potomac has signs along the river not to eat the fish.

When I first started fishing the coastal bays and Atlantic Ocean here on Delmarva fishing was pretty good. My little 21 foot Robalo is a capable boat and on nice days I can head out to the inshore and nearshore lumps. I do not like to extend beyond radio range, generally 50 miles. For the first 15 or so years (1995-2010) fishing here was like I said pretty good. In June and July I could catch bluefin at the Jackspot and occasionally yellow fin at the Hotdog and Hambone. There were flounder in the bays and I knew most of the good spots where to catch them. There are wrecks to fish for seabass built by our Reef Foundation. I have heard the stories of billfish on the nearshore lumps and always kept my eyes open for them, but never targeted them because I fish for foodfish.

Every spring while cleaning my gear I look forward to fishing! With this as background, all this having been said, I now get to the part of my letter that I would like to say in your meetings and that is "fishing sucks in Ocean City, Maryland". Our local bays are cesspools because of the pollution dumped into the bays by the inefficient municipal wastewater facilities. The farm runoff and is also a factor. Then the NATURAL filters, clams and oysters, were devastated by commercial operators over a decade ago and who knows how long it will take for the bays to normalize. The waters in the bays ALWAYS look like cream laden coffee.

Our ocean is not much better. About a month ago my wife and I went to a restaurant at the Commercial Harbor for dinner on a rainy, windy, Thursday night. The harbor was lined with commercial boats two and three deep. I've neve seen so many boats moored there and I'm certain it was because they could
not be outside the inlet pillaging the ocean. I thought to myself no wonder there are no fish outside the inlet for me to catch.

Commercial fishing is devastating our oceans and our area in particular. Now, everyone likes to go to a restaurant to get a good meal, but quite frankly, they've gone overboard with their scientific procedures to target an area and species. The commercial scallop boats have not spared a single inch of the ocean floor using harvesting techniques much like farmers do when plowing their fields using GPS. Make the commercial clammers and oysterman go back to the old ways of using tongs to harvest clams and oysters. The mechanical ways are too destructive and cause irreparable damage.

When I was a young man it was a big deal to harvest a deer in New Jersey, New York or Pennsylvania. Bear, turkey, and beaver were non-existent animals on the whole east coast. Squirrels were eradicated from major cities during the depression because people ate them. Pheasant and quail were stocked by the state and the ones that escaped harvest often went wild and survived. Today deer, bear, turkey and beaver are abundant in the mid-Atlantic states. Conservation measures were effective in restoring the resource. Elk have been reintroduced to some states such as Pennsylvania and Kentucky with great success. The elk have drifted into Virginia, West Virginia and North and South Carolina. It's my understanding that pheasant and quail are not able to be sustained for several reasons: predation from raptors; predation from fox/bobcats; and lack of lime in the soil. When I was a kid hunters shot raptors!
My point is that conservation efforts WORKED to restore deer, bear, turkey and others. It can work for our bays and oceans with aggressive leadership from our fisheries managers! Recreational fisherman are not the problem.

Richard J Kubiak
1101 Stones Run
Berlin, MD 21811

To:
Dr. Christopher Moore, Executive Director Mid-Atlantic Fishing Management Council Fax: 302-674-5399

Re: Fluke/Scup/Sea Bass Allocation Amendment

My name is Susan Beckwith, My husband is a New York State commercial fisherman, he bas been a commercial fishermen for 59 years, our boat is the Allison and Lisa, and the only action I can support for the joint MAFMC/ASMFC commercial recreational allocation amendment for the scup, black sea bass, and fluke fisheries is to maintain status quo for all three fisheries. New York cannot afford to lose more commercial quota in these fisheries. It will be devastating to us and our fishing community and the businesses that support us.

I also support starting a recreational reform amendment iommediately so the recreational sector can help their fisheries turn discards into landings.

But I cannot support the council and commission taking from my quotas that feed people and turning them into the recreational sector's dead discards. That was never the intent of Magnuson.

Susan Beckwith
Montauk, NY F/V Allison \& Lisa


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March 16, 2021
Chris Moore, Ph.D., Executive Director
Mid-Atlantic Fishery Management Council
800 North State Street, Suite 201
Dover, Delaware 19901

## RE: Comments on Summer Flounder, Scup, Sea Bass Allocation Amendment

Dear Dr. Moore:
On behalf of the Stellwagen Bank Charter Boat Association whose membership includes the for hire fleet, recreational anglers and commercial fisherman that fish the state and federal waters off the coast of Massachusetts and abutting states, we offer the following comments to the Mid-Atlantic Fisheries Management Council (MAFMC) and Atlantic States Marine Fisheries Commission (ASMFC) on the joint allocation amendment for summer flounder, scup and black sea bass.

Select anglers have claimed for many years that the status of our fishery is inconsistent with our observations. The revised MRIP data reflects the robust nature of the species of concern consistent with our observations. The National Academy of Science concluded that the use of MRIP data is appropriate and the best available science to manage the recreational fishery. As a result, reallocation is well overdue and must occur now, any delay or proposed status quo option does not result in equitable allocation between the commercial and recreational quotas based on the best available science as recommended by the National Academy of Science.

Those that claim we need to await the outcome of the Recreational Reform Initiative and delay reallocation fail to recognize that to rely on such is speculative due to uncertainty of the timeliness of the initiative as well as goals and objectives of the initiative that does not address the present inequitable allocation. Due to the current uncertainty and lack of available specifics relative to the Recreational Reform Initiative, delaying an allocation decision in favor of unknown recreational reform could have a significant detrimental impact to the recreational fishery in FY 2022 and 2023.


It should be noted that the commercial fleet in Massachusetts has had significant increases to the quotas associated with these species of concern the past few years. They continue to not land their quota for scup and black sea bass due to lack of market or climatic shift of our stocks farther north or east into cooler waters. Reallocation of the resource is consistent with the objectives of the Magnuson Stevens Act to utilize the resource.

Needless to say a decision to select a catch versus landings allocation is difficult. This is further complicated with accounting for dead discards. The species of concern for the recreational sector are in general food based fish fisheries and not a sport fishing catch and release type of fishery with a greater number of discards. As a result fewer discards should be generated in this food based fishery.

The commercial and recreational fisheries means and methods as well as goals and objectives are different and as a result the discards for recreational anglers and commercial fisherman is different. Therefore, we recommend holding each sector accountable to their own discards across all three species that is a reasonable approach at this time. As a result we recommend that allocations should be determined on a catch based basis as described below.

- Summer Flounder Option 1a-2 = Catch Based Allocation 43\% commercial, 57\% recreational.
- Scup Option 1b-3 = Catch Based Allocation - 61\% commercial, 39\% recreational.
- Black Sea Bass, Option 1c-2 = Catch Based Allocation - 28\% commercial, $72 \%$ recreational.


## Quota Transfer Process Alternatives Option 2b - Two Year Phase in Period

The commercial quota increases were implemented for summer flounder in 2019 and for black sea bass in 2020 as a direct result of MRIP revisions. As a result we recommend the most expedited or two year phase in period.

## Quota Transfer Cap Alternatives

We would not recommend the transfer between sectors, but would allow for flexibility to conduct such if the quotas are well underutilized.

P.O. Box 1230

Marshfield, MA 02050
www.stellwagenbank.org
If you have any questions or comments please email or give me a call.
Very truly yours,
Capt. Mike Pierdinoch
Capt. Mike Pierdinock
SBCBA, President
sbcbamp@gmail.com
Cc: Dan McKiernan, MassDMF
Ron Amidon, MassF\&G

Chris Moore, Ph.D., Executive Director
Mid-Atlantic Fishery Management Council
800 North State Street, Suite 201
Dover, Delaware 19901

Re: Comments on Summer Flounder, Scup and Black Sea Bass Allocation Amendment

## Dr. Moore and Council Members

I am writing as a recreational fisherman and member of the Cape Cod Salties Sportfishing Club, to provide my comments on the alternatives being considered under the allocation amendment. The Cape Cod Salties is affiliated with the Rhode Island Saltwater Anglers Association (RISAA).

I retired in 2010 from 40 plus years from an engineering career. I have fished recreationally since I was in grade school and my current primary interest is recreational fishing, which provides for my wife and I , and our extended family, a resource of healthy meals for our dinner table.

The recent changes to the landings estimating procedure, used by MRIP, have created an unfair shift of allowable fish quantities from the recreational catch to the commercial catch. This shift has occurred without any new catch data, but merely by the way MRIP estimates landings.

My recommendation for the alternatives being addressed is as follows:

1. Determine the allocations on a Catch Basis.
2. Update allocations to the Recreational and Commercial fisherman based on changes to fish populations and changing effort.
3. I recommend the following options:
a. Summer Flounder Option 1a-3
b. Scup Option 1b-4
c. Black Sea Bass Option 1c-3

I am not in favor of a Phase in period since the recent MRIP estimating process is the reason for the current imbalance in the allocations. I opt for alternative 1d-1: No phase-in

I can accept limited transfers only if new back up data is obtained.

I also support 3a. No action/Status Quo position on the issue of Framework.

I hope to be able to share my fishing experiences with my grand children in the near future, as I have with my wife and my daughter, so that they may share this experience with their children. This assumes that the fish stocks will be healthy, and our allocations are not lost to another sector.

Sincerely,
Ken Whiting
—— BETTER BUSINESS THROUGH CONSERVATION -

March 16, 2021
Dr. Christopher Moore, Executive Director
Mid-Atlantic Fishery Management Council
800 North State Street, Suite 201
Dover, DE 19901

## Re: Summer Flounder, Scup, Black Sea Bass Commercial/Recreational Allocation Amendment

Dear Dr. Moore and Council Members,
The American Saltwater Guides Association (ASGA) is a coalition of recreational fishing guides, small businesses, and conservation-minded anglers who find greater value in long-term stock abundance rather than simply maximizing harvest. We are committed to the concept of "better business through conservation," reflecting our belief that a precautionary approach to fisheries management based on the best available science provides higher-quality fishing opportunities that bolster the recreational fishing economy. Because summer flounder, scup, and black sea bass are important recreational species along the Atlantic coast, we are thankful for the opportunity to comment on this allocation amendment.

The status of these three stocks remains relatively stable and in good condition. However, the revised 2018 Marine Recreational Informational Program (MRIP) data dramatically altered perceptions of the fisheries and highlighted a serious imbalance in their management. In general, the revised MRIP data showed that recreational harvest was far greater than previously understood, which allowed managers to deduce that the three stocks were larger than previous models estimated. In the case of black sea bass, for example, the 2017 recreational catch estimate was $161 \%$ greater than previous estimates. On average, compared to the previous 1981-2017 estimates the revised MRIP estimates were $30 \%$ higher for summer flounder, $18 \%$ higher for scup, and $73 \%$ higher for black sea bass.

This revised MRIP data and larger biomass assumptions prompted the Council to increase the commercial quota for summer flounder by $49 \%$ in 2019 and for black sea bass by $59 \%$ in 2020. Recreational harvest limits (RHL) were increased by the same factors; however, recreational measures for both fisheries did not liberalize, despite the increased RHLs, because the revised MRIP estimates remained near to above the new RHL. This lack of recreational regulatory adjustments, despite an increase in harvest limits, reflects the difficulties of managing recreational fisheries for these species, which we hope will be addressed through the Council's forthcoming Recreational Reform Initiative. In the meantime, please find our comments on the specific sections of the allocation amendment below.

## Commercial/Recreational Allocation Alternatives

We firmly believe that allocations should represent the realities of these fisheries. Today, black sea bass is not a $50 / 50$ fishery, nor is summer flounder a $60 / 40$ (commercial/recreational) fishery. The updated MRIP numbers tell us that the recreational sector took many more fish than managers previously understood, and the current allocations set in the 1980s do not accurately represent today's fisheries. More recently from 2014-2018, summer flounder was much closer to a 60/40 (recreational/commercial) fishery, and the recreational sector made up $75 \%$ of the BSB fishery.

We recommend that allocations be based on catch rather than harvest and that they use baseline data from more recent timeframes. The catch-based allocation process more efficiently and equitably calculates quota and harvest limits for the commercial and recreational sectors, respectively. If the fishery is managed at the catch level (i.e., Allowable Catch Limits), then allocation should take place at the catch level as well. As referenced above, these fisheries are fundamentally different today than they were more than 30 years ago. For example, climate change is already having dynamic impacts on these fisheries and will continue to do so. As a result, utilizing recent data and years to determine allocations would serve these fisheries well and address the imbalances that currently exist.

- Preferred Summer Flounder Alternative: 1a-3. This alternative uses the most recent base years-2014-2018 - and a catch-based accounting approach.
- Preferred Scup Alternative: 1b-4. This alternative is based on 2018/2019 harvest levels and is catch-based. It is relevant to highlight the fact that in the last 10 years, the commercial sector has never fully utilized its quota, and the recreational sector would require possibly severe restrictions to constrain its harvest, according to the revised MRIP levels. We believe that this alternative would better represent recent performance of the scup fishery.
- Preferred Black Sea Bass Alternative: 1c-3. This alternative uses the most recent base years available-2009-2018-and a catch-based accounting approach.

We understand that all of the Council-provided alternatives, except the status-quo options, will have a negative impact on the commercial sector. To be clear, our recommendations here are an attempt to advise responsible management of these species using the most up-to-date information available-not to maximize the recreational allocation at the expense of commercial fisheries and communities. As noted previously, we understand that additional work is needed to more responsibly manage the recreational sector and better understand the sector's underlying dynamics, and we look forward to progress on the Recreational Reform Initiative.

We are not opposed to phasing in these allocation changes. However, there is precedent for significantly modifying harvest limits with no phase-in period, considering the commercial quota increases in 2019 and 2020 were applied immediately. The alternatives we recommend above utilize approaches that modify the base years in addition to updating the data. As such, we prefer a two-year phase-in (1d-2).

## Quota Transfer Alternatives

In theory, transfers seek to achieve maximum efficiency in a fishery. However, in order to initiate a transfer between sectors, there would have to be unused allocation to be transferred. In the case of black sea bass and summer flounder, both sectors generally fully utilize their annual catch limits-and frequently exceed these limits. The need for transfers should be effectively diminished through this reallocation process. Additionally, the effect of transfers remains too uncertain given recreational data limitations and difficulty in predicting fishery performance. We recommend maintaining status quo and not allowing transfers at this time (2a).

## Framework Provision Alternatives

We are not opposed to the notion of allowing more issues to be considered under frameworks, especially when it relates to new data and small management tweaks. Under that hypothetical scenario, efficiency would be the primary objective and public comment may be less relevant. However, allocation changes, especially those involving significant shifts in allocations, should continue to require a full amendment to promote public comment and better understand the proposed impacts. As such, we support 3a (no action/status quo).

Thank you for providing all of the relevant information on this amendment and for considering our input.

Sincerely,


Tony Friedrich
Vice President and Policy Director
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(202) 744-5013


Willy Goldsmith, Ph.D.
Executive Director
willy@saltwaterguidesassociation.org
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Kiley Dancy
Mid-Atlantic Fishery Management Council
kdancy@mafmc.org
Dustin Colson Leaning,
Atlantic States Marine Fisheries Commission
dleaning@asmfc.org
RE: Commercial/Recreational Allocation Amendment

Dear
Dr. Christopher Moore
Executive Director
Mid-Atlantic Fishery Management Council

We the Connecticut Charter and Party Boat Association have followed this Reallocation of Summer Flounder, Scup and Black Seabass since its inception, through scoping documentation, and hearings dating back to January 2020.
Like Commercial fisherman, For-Hire Fisherman electronically report their catch after each trip. This produces an actual fish census, a true fish count. The category "Recreational fisherman" includes: For Hire Fisherman (who harvest less than 9\% of recreational harvest), Shore anglers, Private recreational, and as we found, "Hidden Fishermen" taking hidden trips according to MRIP mathematically guessing at Recreational harvest. Postcards were mailed out to gage recreational fishing effort and came back as we know with well greater effort than expected. Recreational fishing has an enormous economic impact which substantially trickles down into many branches of local commerce. By MRIPs new method of postcard survey; Connecticut has seen an unrealistic number of fish harvested from shore (in early season months before certain species are even available from shore) (EX.1) or from vessels at time of dry dock(EX.2). Often MRIP harvest data scores PSE of 30 to50.
Ex. 1
2019 Connecticut Scup- Wave 3 (May/June) Shore harvested 494,619 divided by 60 days: 8,243 fish every day, regardless of weather and unavailable from shore during this wave.
Ex. 2
2019 Connecticut Blackfish -month of November MRIP reports recreational anglers harvested 273,170 keepers in wave 6, which is only opened for the 28 days of November; that is 9,756 keepers everyday regardless of weather by just recreational fisherman with almost all boats already hauled for winter. We recognize Catch-based allocation approaches allow each sector to be accountable to its own dead discards which makes the most sense overall. The commercial and recreational fisheries are vastly different, and they are managed with different tools. Holding each sector accountable to their own discards across all three species is a clean and consistent approach to take. This amendment offers the chance to make the commonsense change to catch based allocation, creating incentives for both fisheries to improve bycatch rates and or mortality of bycatch as required in National Standard 9.

It appears that staffers and those who steer fishing regulations are trying to stage a main event fight for fish. In the red corner we have commercial fisherman who have adhered to their rules, who have not over harvested. In the blue corner are the recreational fishermen who needs to steal quota, or they will lose their access to a healthy fishery (Black Seabass, Scup and Summer Flounder). These species stocks are robust and known not to be overfished without overfishing occurring.
Our regulatory machine is broken, it seems a broken mathematical equation (MRIP) is supported over suppling recreational access to healthy fisheries. If we continue down this road, recreational fishermen will be forced into shortened seasons, small creel limits and will prey on the largest breeding fish.
Recreational fishermen see how healthy these fisheries are, when extreme over regulation occurs; both the Council and the Commission will lose their relevance and legitimacy. Recreational anglers will no longer trust regulators and will harvest what they need and want.
It is unclear how delaying this allocation in favor of unknown recreational reform makes any sense at all. Without clear recreational reform alternatives to review, the logical first step would be to finalize this allocation amendment under the timeline described in the Draft Amendment for Public Comment. Delaying this action has the very real implication of hurting the recreational fishery in FY 2022 and 2023. Any work on the recreational reform initiative should continue according to the existing schedule and the entire recreational reform process will be better served informed by the new allocations based on BSIA.
We continue to fight and plead that bad data in equals poor regulations out. We need to recognize that MRIP is not best available science; how does Science calculate "hidden"? No other business has less regulatory stability than the For-Hire industry.

The CCPBA supports:
Allocation change phase in Alternative 1d-1

## Quota transfer process Alternative 2a

Framework/addendum provisions Alternative 3b
The Connecticut Charter and Party Boat Association is comprised of 40 professional charter boats sailing from ten different Connecticut ports, covering the Western, Central and Eastern Long Island Sound. Our Professional Captains have verified credentials, are held to the highest ethics standards and are out on the water everyday often acting as the Sheppard's of their areas.

Respectfully Submitted, Connecticut Charter and Party Boat Association<br>President- Capt. Marc Berger<br>Vice President- Capt. Seth Megargle<br>Treasurer- Capt. Ted Karbowski<br>Secretary- Capt. Michael Pirri

# HARRY L DOERNTE 5 Saunders Dr. <br> Poquoson, VA 23662 <br> 757-868-9559 <br> (Auto Fax - Same) <br> momsworry2000@yahoo.com <br> 3/16/21 

Dr. Chris Moore, Ex. Dir., M-AFMC
Subj: Comments on Sea Bass Allocation Amendment
I am not going to waste a lot of my time commenting on the ludicrous proposal to take quota from the Black Sea Bass commercial sector and transfer it to the recreational sector because your crystal balls are now saying you underestimated the amount the recreational sector went over quota almost every year since the plan has been in effect. You now want to penalize the commercial sector rather than close the recreational season when your crystal balls tell you they are nearing their annual quota.... That is absurd!

What did the Economic Impact Study show?
If you folks are truly interested in helping the Black Sea Bass stock and the smaller commercial fishermen you will do two (2) things:

1. Implement a 25,000 pound commercial possession limit ( so the market doesn't get too flooder by some of these enormous landings ) and
2. Reduce the recreational size limit to 11 inches so they get away from this $40 \%$ discards guess and perhaps allow more of the resource to be utilized for human consumption.

Harry

From: Chris Fay [cjf333@yahoo.com](mailto:cjf333@yahoo.com)
Sent: Tuesday, March 16, 2021 1:14 PM
To: Kiley Dancy
Subject: Summer Flounder, Scup \& Black Sea Bass Allocation Amendment

I support the following options:

## Summer Flounder

- Catch-Based Alternative 1a-3 with 2014-2018 base years

Scup

- Catch-Based Alternative 1b-4 with approximate status quo harvest per sector compared to 2018/2019


## Black Sea Bass

- Catch-Based Alternative 1c-3 with 2009-2018 base years


## Phase-In Alternatives

- 1d-2 Allocation change evenly spread over 2 years. This seems like a reasonable timeframe to phase in the changes, it's not too quick nor too long and drawn out, seems like a good compromise.


## Annual Quota Transfer Alternatives \& Annual Quota Transfer Cap Alternatives

## - Option 2a No action/status quo

- While I do not represent RI Saltwater Anglers Association (RISAA) as an organization, I am a member/recreational angler and I'm in agreement with their statement of remaining generally opposed to transfers between sectors, however I remain open to the idea of transfers to a limited extent. It seems the effect of transfers is not fully understood and should be approached carefully in a data driven manner. It is suggested that before any transfers of quota are completed a detailed analysis of the potential impacts of those transfers on the biological status of fish populations be completed. I feel this approach will help to provide a reality check before going "all in" on the transfers.


## Framework/addendum provision alternatives

- Option 3a No action/status quo
- While I do not represent RISAA as an organization, I am a member/recreational angler and I'm in agreement with their statement of supporting Status Quo on the issue of Frameworks. I also believe that any changes in annual catch limits greater than $5 \%$ that result from basic changes in the procedures used to estimate catch should be delayed until allocation can be revisited after the effect of such changes can be determined. Let's learn from past mistakes and take an incremental approach to these changes by allowing more real time data to influence these important decisions.

General Comments

- Allocations of these species should be based upon Catches vs Landings. My understanding is that MRIP created large increases in stock estimates that unfairly allowed large increases in commercial quotas in the recent past. Recreational anglers were at a disadvantage under these rules and were not afforded increases because MRIP data indicated that recreational landings were already much higher, effectively shifting allocation from recreational to commercial. These changes did not result in an equitable solution. It has been a long time since allocations have been evaluated and it is prudent to do so given changes in the fisheries. In response to MRIP updates, quotas were dramatically changed in 2019 ( $49 \%$ increase in commercial for Fluke) and 2020 ( $59 \%$ increase in commercial quota for Black Sea Bass). These increases were not reliant upon any new data, but through various estimating methodologies. Please allow recent data to help guide the quotas vs outdated methodologies.

Respectfully, Chris Fay

From:<br>Sent:<br>David Duncan Dow [ddow420@comcast.net](mailto:ddow420@comcast.net)<br>Tuesday, March 16, 2021 1:41 PM<br>To:<br>Kiley Dancy<br>Cc:<br>David Duncan Dow; Les Kaufman; Wes Pratt; Weis, Judith; Judith Lang; deFur, Peter; Billie Bates<br>Subject: Summer Flounder, Scup and Sea Bass Allocation Amendment

Dear Dr. Chris Moore:

I am a retired marine scientist and grassroots environmentalist living on Cape Cod. I retired in 2009 from the Northeast Fisheries Science Center in Woods Hole, Ma. where my duties included: being the Recreational Fisheries in the Northeast; serving on the New England Fishery FMC's Habitat Plan Development Team which helped develop Omnibus Habitat Amendment 2 which was released by NOAA Fisheries GARFO in 2018; serving on the EmaX (Energy Modeling \& Analysis Exercise) research team which develop a carbon budget model for the Northeast Continental Shelf Ecosystem and participating in the EPA-lead Waquoit Bay Watershed Ecological Risk Assessment Project which identified nutrients (" $N$ " in Waquoit Bay and " $P$ " in Ashumet Pond) as the major human stressor in the watershed. I read parts of NOAA Fisheries 2020 Status of the Ecosystems report which discussed the effects of climate change and eutrophication on the marine food chain and some of the consequences on managed fish stocks and their prey.

I mention this background because I am not sure that the Summer Flounder/Scup and Black Sea Bass Commercial/ Recreational Allocation Amendment includes: "natural mortality" related deaths; productive capacity of Essential. Fish Habitat effects on recruitment and growth of the Summer Flounder, Scup and Black Sea Bass stocks and socioeconomic constraints from the loss of the working waterfront and limited mooring capacity in local embayments on Cape Cod and elsewhere. Given the time constraints in submitting comments, I was unable to read the Appendices in the supporting document.

Thus when I choose the follow allocation options, I assumed that these factors were not constraining the Total Allowable Catch division or the Total Allowable Landings between the recreational and commercial catches + discards in these three fish stocks.

* Summer Flounder:

Catch -based Allocation Percentage-1a-3
Landings-based Percentage Allocations-1a-7

* Scup

Catch-based Percentage Allocations-1b-1
Landings-based Percentage Allocations-1b-5

* Black Sea Bass

Catch-based Percentage Allocations-1c-3
Landings-based Percentage Allocations-1c-7

* Phase in Alternatives- 1d-2
* Annual Quota Transfer Alternatives- 2a
* Transfer Cap Alternatives- 2c-1
* Framework/Addendum Provision Alternatives- 3b.

Thanks for allowing me to comments on this Allocation Amendment for three species harvested in Cape Cod waters. When I purchase seafood at the Cataumet Fish Market, these three species are often not available for purchase. Thus the MAFMC/ASMFC/Ma. DMF and its New England partners may want to engage in a promotion effort to increase
commercial sales and head boat/shoreline saltwater angling opportunities. When I was the Recreational Fisheries Coordinator in the Northeast and met with Saltwater Angling organizations, I was frequently asked how it was possible for them to kill more striped bass from discards than commercial fishermen who targeted this species. With the increased fishing effort on Summer Flounder and Black Sea Bass from the new MREP surveys, I feel that the MAFMC/ASMFC were wise to increase the recreational percentage quotas for these fish stocks

Dr. David D. Dow
East Falmouth, Ma.

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From: Star2017 <star2017@aol.com>
Sent: Tuesday, March 16, 2021 1:57 PM
To: Kiley Dancy
Subject: Summer Flounder, Scup and Black seabass commercial/recreational allocation joint amendment
Comments
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My name is Chuck Weimar, I am a New York commercial fisherman, I have been a commercial fishermen for 40 years full time year round. My boat is the Rianda S.

The only action I can support for the joint MAFMC/ASMFC commercial recreational allocation amendment for the scup, black sea bass, and fluke fisheries is to maintain status quo for all three fisheries. New York cannot afford to lose more commercial quota in these fisheries. It will be devastating to me and my fishing community and the businesses that support us.

As a commercial fisherman, we have to report our catch on VTRs and the buyer also has to report the same fish. The recreational fisheries have no reporting functionality. It is like comparing apples to oranges when comparing reporting requirements. From my understanding, the recreational fisheries reporting is done via "random" phone survey.

I also support starting a recreational reform amendment immediately so the recreational sector can help their fisheries turn discards into landings.

But I cannot support the council and commission taking from my quotas that feed people and turning them into the recreational sector's dead discards. That was never the intent of Magnuson."

Sincerely
Chuck Weimar
F/V Rianda S
Montauk NY

From: Joe Gilbert [hiddenemp@aol.com](mailto:hiddenemp@aol.com)<br>Sent: Tuesday, March 16, 2021 3:08 PM<br>To:<br>Kiley Dancy<br>Fluke/Scup/Sea Bass Allocation Amendment

Joseph J. Gilbert<br>Empire Fisheries<br>926 Stonington Rd<br>Stonington, CT 06378

March 16, 2021
Mid-Atlantic Fishery Management Council
800 North State Street Ste 201
Dover, DE 19901
Atlantic States Marine Fisheries Commission
1050 N. Highland St. Ste 200 A-N
Arlington, VA 22201

Dear Chairman Keliher and Chairman Luisi,
My name is Joseph J. Gilbert. I hail from the port of Stonington, CT. My organization operates several commercial fishing vessels that rely on summer flounder, scup, and black sea bass as a component of their catch. I comment for myself, my crew, and my colleagues. I speak for many people. I have vast experience in fisheries, both commercial with many varied gear types, and rod and reel recreational - everything ranging from billfish tournament circuit to cane pole pan fish for dinner. Fishing is my vocation and my avocation.

Upon review of all materials and documents, I find I must strongly oppose all alternatives.

## I strongly support the status quo.

What is missing from the document is an alternative that recognizes the uncontrolled nature of recreational fishing. This alternative would reallocate with reductions to the abusive fishery and with increases to the responsible, sustainable fishery. The document does not reflect the reality of what has occurred in the field over the past decade or so.

Commercial fishing effort directed on summer flounder and black sea bass has been strictly controlled. When the commercial sector exceeds its limits there are consequences, paybacks, adjustments, turmoil to management and penalties and fines to the individual fishermen. The fisherman becomes a violator!

Recreationally in my state, the recent past allowed me 25 black sea bass per angler. Now my state limit is down to a fivefish creel limit. When MRIP data is considered, the recreational landings have exceeded their allocation by multiples with no corresponding 5 -fold increase in license sales, I must suggest a flawed data set. However, if there is validity to the data indicating the recreational sector greatly overfished, then we must take the appropriate actions. Law enforcement must bring this under control.

Unfortunately, this document proposed to do the opposite. We have identified massive overfishing and high discard mortality rate in a fishery with no accountability measures. Do we want to reward this behavior with a larger share? What if the recreational sector overfishes during the next review period? Will they get more again? Rewarding this dynamic will provide a blueprint for eventually controlling the entire resource.

From my own experience of releasing undersized catch discards, I do not believe discard mortality is well understood. Fishing down-current of recreational, charter, and head boat action brings this to view. l've seen so many dying fish, bladders out, until the seagulls aren't even interested anymore. Depending on water depth and other factors, the post-
release mortality can reach very high numbers. The MRIP numbers indicate higher discard rates for recreational than for commercial. Any allocation change will have the effect of turning landings into dead discards.

To solve the problem, my ask to the council is to please start an action addressing what is truly needed - recreational fishing reform. Recreational effort cannot be allowed to fish the resource at unsustainable levels. Efforts must be limited, not expanded. Commercial effort is capped, verified and accountable, while the recreational effort continues to expand unchecked, unregulated and unaccountable.

Please see my comments in National Standards sections.

## National Standards

## Standard 1 - Optimum Yield

(a) Conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield (OY) from each fishery for the U.S. fishing industry.

Comment: This makes the case for not converting landings to discards

## Standard 2 - Scientific Information

(a) Conservation and management measures shall be based upon the best scientific information available.

Comment: If we accept the data, we should call law enforcement. If we challenge the data, then status quo is appropriate until the data is fixed.

## Standard 4 - Allocations

(a) Standard 4. Conservation and management measures shall not discriminate between residents of different states. If it becomes necessary to allocate or assign fishing privileges among various U.S. fishermen, such allocation shall be:
(1) Fair and equitable to all such fishermen.

This action violates this standard in so far as the current situation developed inequitably through one group having effort caps and the other going unchecked. Any reallocation bakes this inequity into management forever.
(2) Reasonably calculated to promote conservation.

Reallocation to an unqualified (as evidenced by overfishing level) body of fishers will not promote conservation.
(3) Carried out in such manner that no particular individual, corporation, or other entity acquires an excessive share of such privileges.

Comment: Reallocation will give an excessive share of privileges to the entity of recreational fishing as represented by sport fishing alliances and advocacy organizations.

## Standard 5 - Efficiency

(b) Efficiency in the utilization of resources-(1) General. The term "utilization" encompasses harvesting, processing, marketing, and non-consumptive uses of the resource, since management decisions affect all sectors of the industry. In considering efficient utilization of fishery resources, this standard highlights one way that a fishery can contribute to the Nation's benefit with the least cost to society: Given a set of objectives for the fishery, an FMP should contain management measures that result in as efficient a fishery as is practicable or desirable.

Comment: Reallocation will violate this section of the standards by removing landings to be provided at "the least cost to society."
(2) Efficiency. In theory, an efficient fishery would harvest the OY with the minimum use of economic inputs such as labor, capital, interest, and fuel. Efficiency in terms of aggregate costs then becomes a conservation objective, where "conservation" constitutes wise use of all resources involved in the fishery, not just fish stocks.

Comment: The wise use of all resources involved is to let commercial harvest continue and grow
(2i) In an FMP, management measures may be proposed that allocate fish among different groups of individuals or establish a system of property rights. Alternative measures examined in searching for an efficient outcome will result in different distributions of gains and burdens among identifiable user groups. An FMP should demonstrate that management measures aimed at efficiency do not simply redistribute gains and burdens without an increase in efficiency.

Comment: How does this reallocation satisfy the requirement for redistribution of gains and burdens to not be done without an increase in efficiency?
(c) Limited access. A "system for limiting access," which is an optional measure under section 303(b) of the Magnuson-Stevens Act, is a type of allocation of fishing privileges that may be considered to contribute to economic efficiency or conservation. For example, limited access may be used to combat overfishing, overcrowding, or overcapitalization in a fishery to achieve OY. In an unutilized or underutilized fishery, it may be used to reduce the chance that these conditions will adversely affect the fishery in the future, or to provide adequate economic return to pioneers in a new fishery. In some cases, limited entry is a useful ingredient of a conservation scheme, because it facilitates application and enforcement of other management measures.

Comment: We should be talking about limited access for summer flounder and black sea bass recreational fisheries.

## Standard 6 - Variations and Contingencies

a) Standard 6. Conservation and management measures shall take into account and allow for variations among, and contingencies in, fisheries, fishery resources, and catches.
(b) Conservation and management. Each fishery exhibits unique uncertainties. The phrase "conservation and management" implies the wise use of fishery resources through a management regime that includes some protection against these uncertainties. The particular regime chosen must be flexible enough to allow timely response to resource, industry, and other national and regional needs. Continual data acquisition and analysis will help the development of management measures to compensate for variations and to reduce the need for substantial buffers. Flexibility in the management regime and the regulatory process will aid in responding to contingencies.
(c) Variations. (1) In fishery management terms, variations arise from biological, social, and economic occurrences, as well as from fishing practices. Biological uncertainties and lack of knowledge can hamper attempts to estimate stock size and strength, stock location in time and space, environmental/habitat changes, and ecological interactions. Economic uncertainty may involve changes in foreign or domestic market conditions, changes in operating costs, drifts toward overcapitalization, and economic perturbations caused by changed fishing patterns. Changes in fishing practices, such as the introduction of new gear, rapid increases or decreases in harvest effort, new fishing strategies, and the effects of new management techniques, may also create uncertainties. Social changes could involve increases or decreases in recreational fishing, or the movement of people into or out of fishing activities due to such factors as age or educational opportunities.
(2) Every effort should be made to develop FMPs that discuss and take into account these vicissitudes. To the extent practicable, FMPs should provide a suitable buffer in favor of conservation. Allowances for uncertainties should be factored into the various elements of an FMP. Examples are:
(i) Reduce OY. Lack of scientific knowledge about the condition of a stock(s) could be reason to reduce OY.
(ii) Establish a reserve. Creation of a reserve may compensate for uncertainties in estimating domestic harvest, stock conditions, or environmental factors.
(iii) Adjust management techniques. In the absence of adequate data to predict the effect of a new regime, and to avoid creating unwanted variations, a Council could guard against producing drastic changes in fishing patterns, allocations, or practices.
(iv) Highlight habitat conditions. FMPs may address the impact of pollution and the effects of wetland and estuarine degradation on the stocks of fish; identify causes of pollution and habitat degradation and the authorities having jurisdiction to regulate or influence such activities; propose recommendations that the Secretary will convey to those authorities to alleviate such problems; and state the views of the Council on unresolved or anticipated issues.
(d) Contingencies. Unpredictable events—such as unexpected resource surges or failures, fishing effort greater than anticipated, disruptive gear conflicts, climatic conditions, or environmental catastrophesare best handled by establishing a flexible management regime that contains a range of management options through which it is possible to act quickly without amending the FMP or even its regulations.
(1) The FMP should describe the management options and their consequences in the necessary detail to guide the Secretary in responding to changed circumstances, so that the Council preserves its role as policy-setter for the fishery. The description should enable the public to understand what may happen under the flexible regime, and to comment on the options.
(2) FMPs should include criteria for the selection of management measures, directions for their application, and mechanisms for timely adjustment of management measures comprising the regime. For example, an FMP could include criteria that allow the Secretary to open and close seasons, close fishing grounds, or make other adjustments in management measures.
(3) Amendment of a flexible FMP would be necessary when circumstances in the fishery change substantially, or when a Council adopts a different management philosophy and objectives.

Comment: If we accept the data, then there has been no effective conservation or management in the recreational sector.
Comment: The variable of increased fishing effort during a pandemic is an anomaly and should be recognized as such.

## National Standard 7 - Costs \& Benefits

(a) Conservation and management measures shall, where practicable, minimize costs and avoid unnecessary duplication.
(b) Alternative management measures. Management measures should not impose unnecessary burdens on the economy, on individuals, on private or public organizations, or on Federal, state, or local governments. Factors such as fuel costs, enforcement costs, or the burdens of collecting data may well suggest a preferred alternative.
(c) Analysis. The supporting analyses for FMPs should demonstrate that the benefits of fishery regulation are real and substantial relative to the added research, administrative, and enforcement costs, as well as costs to the industry of compliance. In determining the benefits and costs of management measures, each management strategy considered and its impacts on different user groups in the fishery should be evaluated. This requirement need not produce an elaborate, formalistic cost/benefit analysis. Rather, an evaluation of effects and costs, especially of differences among workable alternatives, including the status quo, is adequate. If quantitative estimates are not possible, qualitative estimates will suffice.

Comment: We could not track, verify, or enforce at current levels. Who will cover costs of monitoring and enforcing a larger recreational fishery?
(1) Burdens. Management measures should be designed to give fishermen the greatest possible freedom of action in conducting business and pursuing recreational opportunities that are consistent with
ensuring wise use of the resources and reducing conflict in the fishery. The type and level of burden placed on user groups by the regulations need to be identified. Such an examination should include, for example: Capital outlays; operating and maintenance costs; reporting costs; administrative, enforcement, and information costs; and prices to consumers. Management measures may shift costs from one level of government to another, from one part of the private sector to another, or from the government to the private sector. Redistribution of costs through regulations is likely to generate controversy. A discussion of these and any other burdens placed on the public through FMP regulations should be a part of the FMP's supporting analyses.

Comment: It seems only one group was given greatest possible freedom. That freedom was unregulated and abused.

## National Standard 8 - Communities

(a) Standard 8. Conservation and management measures shall, consistent with the conservation requirements of the Magnuson-Stevens Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities by utilizing economic and social data that are based upon the best scientific information available in order to:
(1) Provide for the sustained participation of such communities; and
(2) To the extent practicable, minimize adverse economic impacts on such communities.
(b) General. (1) This standard requires that an FMP take into account the importance of fishery resources to fishing communities. This consideration, however, is within the context of the conservation requirements of the Magnuson-Stevens Act. Deliberations regarding the importance of fishery resources to affected fishing communities, therefore, must not compromise the achievement of conservation requirements and goals of the FMP. Where the preferred alternative negatively affects the sustained participation of fishing communities, the FMP should discuss the rationale for selecting this alternative over another with a lesser impact on fishing communities. All other things being equal, where two alternatives achieve similar conservation goals, the alternative that provides the greater potential for sustained participation of such communities and minimizes the adverse economic impacts on such communities would be the preferred alternative.
(2) This standard does not constitute a basis for allocating resources to a specific fishing community nor for providing preferential treatment based on residence in a fishing community.
(3) The term "fishing community" means a community that is substantially dependent on or substantially engaged in the harvest or processing of fishery resources to meet social and economic needs, and includes fishing vessel owners, operators, and crew, and fish processors that are based in such communities. A fishing community is a social or economic group whose members reside in a specific location and share a common dependency on commercial, recreational, or subsistence fishing or on directly related fisheries-dependent services and industries (for example, boatyards, ice suppliers, tackle shops).
(4) The term "sustained participation" means continued access to the fishery within the constraints of the condition of the resource.
(c) Analysis. (1) FMPs must examine the social and economic importance of fisheries to communities potentially affected by management measures. For example, severe reductions of harvests for conservation purposes may decrease employment opportunities for fishermen and processing plant workers, thereby adversely affecting their families and communities. Similarly, a management measure that results in the allocation of fishery resources among competing sectors of a fishery may benefit some communities at the expense of others.
(2) An appropriate vehicle for the analyses under this standard is the fishery impact statement required by section 303(a)(9) of the Magnuson-Stevens Act. Qualitative and quantitative data may be used, including information provided by fishermen, dealers, processors, and fisheries organizations and
associations. In cases where data are severely limited, effort should be directed to identifying and gathering needed data.
(3) To address the sustained participation of fishing communities that will be affected by management measures, the analysis should first identify affected fishing communities and then assess their differing levels of dependence on and engagement in the fishery being regulated. The analysis should also specify how that assessment was made. The best available data on the history, extent, and type of participation of these fishing communities in the fishery should be incorporated into the social and economic information presented in the FMP. The analysis does not have to contain an exhaustive listing of all communities that might fit the definition; a judgment can be made as to which are primarily affected. The analysis should discuss each alternative's likely effect on the sustained participation of these fishing communities in the fishery.
(4) The analysis should assess the likely positive and negative social and economic impacts of the alternative management measures, over both the short and the long term, on fishing communities. Any particular management measure may economically benefit some communities while adversely affecting others. Economic impacts should be considered both for individual communities and for the group of all affected communities identified in the FMP. Impacts of both consumptive and non-consumptive uses of fishery resources should be considered.
(5) A discussion of social and economic impacts should identify those alternatives that would minimize adverse impacts on these fishing communities within the constraints of conservation and management goals of the FMP, other national standards, and other applicable law.

Comment: Commercial harvesters are the "community." They bore the burden of conservation, through moratoriums, limited access, quota systems, verification, payback, regulatory and criminal enforcement actions - not to mention loss of quality of life and uncertainty about the future. Now the future is here. The fishing community that sacrificed for the good of the resource is now facing reallocation to a group that self-admittedly went without accountability and massively overfished.

## National Standard 9 - Bycatch

(a) Standard 9. Conservation and management measures shall, to the extent practicable:
(1) Minimize bycatch; and
(2) To the extent bycatch cannot be avoided, minimize the mortality of such bycatch.
(b) General. This national standard requires Councils to consider the bycatch effects of existing and planned conservation and management measures. Bycatch can, in two ways, impede efforts to protect marine ecosystems and achieve sustainable fisheries and the full benefits they can provide to the Nation. First, bycatch can increase substantially the uncertainty concerning total fishing-related mortality, which makes it more difficult to assess the status of stocks, to set the appropriate OY and define overfishing levels, and to ensure that OYs are attained and overfishing levels are not exceeded. Second, bycatch may also preclude other more productive uses of fishery resources.
(c) Definition—Bycatch. The term "bycatch" means fish that are harvested in a fishery, but that are not sold or kept for personal use.
(1) Inclusions. Bycatch includes the discard of whole fish at sea or elsewhere, including economic discards and regulatory discards, and fishing mortality due to an encounter with fishing gear that does not result in capture of fish (i.e., unobserved fishing mortality).
(2) Exclusions. Bycatch excludes the following:
(i) Fish that legally are retained in a fishery and kept for personal, tribal, or cultural use, or that enter commerce through sale, barter, or trade.
(ii) Fish released alive under a recreational catch-and-release fishery management program. A catch-and-release fishery management program is one in which the retention of a particular species is prohibited. In such a program, those fish released alive would not be considered bycatch.
(iii) Fish harvested in a commercial fishery managed by the Secretary under Magnuson-Stevens Act sec. 304(g) or the Atlantic Tunas Convention Act of 1975 (16 U.S.C. 971d) or highly migratory species harvested in a commercial fishery managed by a Council under the Magnuson-Stevens Act or the Western and Central Pacific Fisheries Convention Implementation Act, that are not regulatory discards and that are tagged and released alive under a scientific tagging and release program established by the Secretary.
(d) Minimizing bycatch and bycatch mortality. The priority under this standard is first to avoid catching bycatch species where practicable. Fish that are bycatch and cannot be avoided must, to the extent practicable, be returned to the sea alive. Any proposed conservation and management measure that does not give priority to avoiding the capture of bycatch species must be supported by appropriate analyses. In their evaluation, the Councils must consider the net benefits to the Nation, which include, but are not limited to: Negative impacts on affected stocks; incomes accruing to participants in directed fisheries in both the short and long term; incomes accruing to participants in fisheries that target the bycatch species; environmental consequences; non-market values of bycatch species, which include non-consumptive uses of bycatch species and existence values, as well as recreational values; and impacts on other marine organisms. To evaluate conservation and management measures relative to this and other national standards, as well as to evaluate total fishing mortality, Councils must-
(1) Promote development of a database on bycatch and bycatch mortality in the fishery to the extent practicable. A review and, where necessary, improvement of data collection methods, data sources, and applications of data must be initiated for each fishery to determine the amount, type, disposition, and other characteristics of bycatch and bycatch mortality in each fishery for purposes of this standard and of section 303(a)(11) and (12) of the Magnuson-Stevens Act. Bycatch should be categorized to focus on management responses necessary to minimize bycatch and bycatch mortality to the extent practicable. When appropriate, management measures, such as at-sea monitoring programs, should be developed to meet these information needs.
(2) For each management measure, assess the effects on the amount and type of bycatch and bycatch mortality in the fishery. Most conservation and management measures can affect the amounts of bycatch or bycatch mortality in a fishery, as well as the extent to which further reductions in bycatch are practicable. In analyzing measures, including the status quo, Councils should assess the impacts of minimizing bycatch and bycatch mortality, as well as consistency of the selected measure with other national standards and applicable laws. The benefits of minimizing bycatch to the extent practicable should be identified and an assessment of the impact of the selected measure on bycatch and bycatch mortality provided. Due to limitations on the information available, fishery managers may not be able to generate precise estimates of bycatch and bycatch mortality or other effects for each alternative. In the absence of quantitative estimates of the impacts of each alternative, Councils may use qualitative measures. Information on the amount and type of bycatch should be summarized in the SAFE reports.
(3) Select measures that, to the extent practicable, will minimize bycatch and bycatch mortality. (i) A determination of whether a conservation and management measure minimizes bycatch or bycatch mortality to the extent practicable, consistent with other national standards and maximization of net benefits to the Nation, should consider the following factors:
(A) Population effects for the bycatch species.
(B) Ecological effects due to changes in the bycatch of that species (effects on other species in the ecosystem).
(C) Changes in the bycatch of- other species of fish and the resulting population and ecosystem effects.
(D) Effects on marine mammals and birds.
(E) Changes in fishing, processing, disposal, and marketing costs.
(F) Changes in fishing practices and behavior of fishermen.
(G) Changes in research, administration, and enforcement costs and management effectiveness.
(H) Changes in the economic, social, or cultural value of fishing activities and nonconsumptive uses of fishery resources.
(I) Changes in the distribution of benefits and costs.
(J) Social effects.
(ii) The Councils should adhere to the precautionary approach found in the Food and Agriculture Organization of the United Nations (FAO) Code of Conduct for Responsible Fisheries (Article 6.5), which is available from the Director, Publications Division, FAO, Viale delle Terme di Caracalla, 00100 Rome, Italy, when faced with uncertainty concerning any of the factors listed in this paragraph (d)(3).
(4) Monitor selected management measures. Effects of implemented measures should be evaluated routinely. Monitoring systems should be established prior to fishing under the selected management measures. Where applicable, plans should be developed and coordinated with industry and other concerned organizations to identify opportunities for cooperative data collection, coordination of data management for cost efficiency, and avoidance of duplicative effort.
(e) Other considerations. Other applicable laws, such as the MMPA, the ESA, and the Migratory Bird Treaty Act, require that Councils consider the impact of conservation and management measures on living marine resources other than fish; i.e., marine mammals and birds.

Comment: Reallocation violates this standard by converting commercial landings to unregulated recreational discards.

## Best Regards,

Joseph J. Gilbert
Empire Fisheries, Owner
Stonington, CT

FISHERIES

Wild caught product of USA
Managing the Needs of our Customers Through our Commitment to Sustainable Fisheries
March 16, 2021
Dr. Chris Moore, Executive Director
Mid-Atlantic Fishery Management Council
800 North State Street, Suite 201, Dover, DE 19901
By email to: kdancy@mafmc.org
Re: Summer Flounder, Scup, Black Sea Bass (SFSBSB) Allocation Amendment
Dear Dr. Moore:
Thank you for the opportunity to comment on the SFSBSB Allocation Amendment. I am writing on behalf of our family-owned and operated, vertically integrated, commercial fishing company employing more than 200 on our company-owned vessels and in our freezing/processing plant and cold storage operation, based in Cape May, New Jersey. In addition to the 17 federally- permitted vessels that we operate, we work with many independent fishermen to develop and serve domestic and export markets for our combined catch.

We are opposed to the Council taking any amount of our historically-earned and allocated commercial quotas of these important demersal species and re-allocating them to the recreational fishing sector as a solution to persistent overages of recreational harvest and discard levels, particularly in the summer flounder and black sea bass fisheries. The Amendment is not a solution to the problem, and we ask the Council to indefinitely postpone additional work on it at your meeting next month: Regarding summer flounder, we can only support Alternative 1a-4; the status quo. Regarding scup, we can only support Alternative $1 \mathrm{~b}-1$; the status quo.
Regarding black sea bass, we can only support Alternative 1c-4; the status quo.
In setting this amendment aside, we ask that the Council focus on the problem at hand and turn its attention solely to the Recreational Reform Amendment and use the upcoming Management Strategy Evaluation workshops to solicit input on the future management of the recreational summer flounder fishery and strategies to turn discards into landings. This process will hold the key for how best to resolve this problem, also, for successful Scup and Black Sea Bass recreational fisheries.

The Amendment's stated 'Need for Action' reads that the status quo "allocation percentages do not reflect the current understanding of the recent and historic proportions of catch and landings from the commercial and recreational sectors", however, as we have learned from participating in each of the five virtual public hearings, the problem lies solely with the recreational sector's long-time inability to stay within its allocated quotas. This is not the case with the commercial fisheries, which have adapted to strategies to stay within our quotas and live with the pound-for-pound payback of any overages. We know what the commercial catches are; it is the recreational sector that has yet to come to grips with the 2006 MSA requirements to use sector-specific accountability measures to restrain catch and avoid overfishing.

In considering the public hearing document (PHD) there is a significant lack of justification for a reallocation of these species between sectors. These statements from the document support our view:

## Lund's

FISHERIES

Wild caught product of USA
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- "...(N)one of the alternatives are expected to change patterns in landings, discards, or fishing effort in such a way that they negatively impact stock status for any of the three species";
- "...(C)hanges in the commercial/recreational allocation...within the range currently under consideration, may not have notably different impacts on the risk of exceeding the ABC';
- "The results of the updated (economic) model (for Summer Flounder) suggest that the existing 60/40 commercial/recreational allocation is not suboptimal from an economic efficiency perspective"; and
- "...(D)ue to data limitations, more concrete guidance about optimal allocations could not be generated due to the inability to more precisely estimate the recreational sector's value."

In addition, the PHD clarifies " $(t)$ he commercial fisheries have rarely exceeded their quotas by notable amounts over the past 15 years due to close monitoring and reporting" and that all but the status quo alternatives "would reallocate based on time periods when the recreational fishery was effectively less constrained to their limits than the commercial fishery". To do so would be patently unfair and penalize commercial fishermen, and seafood consumers, for staying within the narrow lanes of the MSA requirements.

Finally, we do not agree with references in the PHD that attempt to justify reallocating commercial quota to the recreational sector by minimizing the potential for commercial fishermen and processors to fully utilize our allocations, "due to the impacts of the COVID-19 pandemic on market demand" (Black Sea Bass) and an expectation the "commercial fishery would continue to under-harvest their quota due to market reasons" (Scup).

Since the earliest days of the MSA, as foreign fishing in the EEZ was displaced by a national policy to Americanize the U.S. fishery industry, Lund's Fisheries has made millions of dollars of investments into freezing and value-added processing capacity to provide us with a strong presence in wholesale to retail, and direct to retail markets, providing consumers with seafood that can be taken home to eat. As a direct result of these investments, and the fact that the COVID pandemic closed restaurants and kept consumers home during the last 12 months, our company had one of its strongest years yet.

It is not the Council's job to predict market forces or market demand, but it is the responsibility of the Council to develop management measures that lead to predictable outcomes and sustainable fisheries. Our commercial quotas are the currency that allows us to plan our investments, which keeps our processing employees and fishermen working and allows us to provide outstanding seafood products to American (and Asian and European) consumers. These quotas are no less important to us than our credit lines with the local banks that we have worked with since our company was founded, in 1954.

In recent years, our mixed trawl fishery for Summer Flounder, Scup and Black Sea Bass has become increasingly important to us, particularly as we have worked with our partners in the NJ Marine Fisheries Administration to create a policy of 'landings flexibility', which allows fishing vessels from New York to North Carolina to land in Cape May after fishing local waters and before those vessels continue on to other states to land fish under the various state permits that they may hold.

Managing the Needs of our Customers Through our Commitment to Sustainable Fisheries

Fluke and Black Sea Bass destined for these other states are segregated from the catch that can be legally landed in New Jersey, using a call-in system and reliable fishermen with the intent to stay within necessary state landings limits. This policy has led to reduced discards and increased amounts of fish across our dock as catches of scup or squid can now be landed in Cape May, along with the NJ Fluke or Black Sea Bass onboard, instead of the entire trip being boated to VA or NC docks.

In these fisheries, most of the boats involved hold permits from several states and have long traveled throughout the region to either bring the fish back to their home port or unload their catch in the states where they are holding permits. Fish have fins and are not always found in the same place, constantly seeking out suitable habitat. Knowing this, we, and others in the commercial fishery, employ vessels capable of operating throughout the region and have accumulated permits over the years to maximize landing opportunities for our catch. Our fishing history has been earned through these investments and we are opposed to moving it to others who have not earned the fishing privilege, under the MSA process.

Regarding our participation in the scup fishery, Lund's Fisheries worked with the Council, in 2012, to raise the Winter I possession limit and increase the potential to land the quota. Since that time, we have instituted a floor-price offer to fishermen with the same intention. Over the last several years we have successfully worked with regional grocery stores to provide value-added frozen scup directly to seafood consumers. The demand for high-quality domestic whitefish products has increased significantly over the last year and, today, based upon customer demand, we are now evaluating the certification of the scup fishery under the Marine Stewardship Council program.

The value of our state and federal permits is based solely on consistent commercial quotas. To reduce these quotas due to persistent recreational overages cannot be justified and will create serious economic harm in our commercial fishing communities. Nor can "climate shift" be justified as a reason for reallocation since our fishing fleets are mobile and have historically landed in out of state ports, due to geographic necessity and the suite of permits that boat owners have invested in over time. Our business models have already adjusted to the potential for shifting stocks and, more than anything else, we need the Council to maintain consistent policies supporting both a strong commercial and recreational fishing future. Setting this Amendment aside, in favor of creating additional flexibility around recreational catch limits through a singular focus on the Recreational Reform Amendment, is the fairest and most effective way to manage the recreational accountability issue and maintain consistency in the commercial sector.

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

With best regards,

## Wayne Reichle

Wayne Reichle, President<br>wreichle@lundsfish.com



March 16, 2021

Dr. Chris Moore, Executive Director<br>Mid-Atlantic Fishery Management Council<br>800 North State Street, Suite 201, Dover, DE 19901<br>By email to: kdancy@mafmc.org<br>Re: Summer Flounder, Scup, Black Sea Bass (SFSBSB) Allocation Amendment

Dear Dr. Moore:
On behalf of the Garden State Seafood Association, the over 1200 commercial fishermen we represent, and the seafood retailers and processors they support, please accept these comments on the SFSBSB Allocation Amendment. We appreciate the opportunity to provide these comments to the Mid-Atlantic Fishery Management Council and we can only support the Status Quo Option in all three species allocations under consideration (summer flounder, alternative 1a4; scup, alternative $1 \mathrm{~b}-1$; and black sea bass, alternative $1 \mathrm{c}-4$ ).

Universally, the commercial fishing industry of New Jersey does not agree with the amendment objective to update the current allocation percentages affecting recreational and commercial TALs, based on recent MRIP estimates of recreational catches exponentially exceeding their limits. We feel strongly that if the Council were to implement some other alternative quota reallocations, it would reward historic overages of the recreational sector while unequally constraining the commercial sector over the same period.

As one of our members, Wayne Reichle, President of Lund's fisheries noted in his comments, which we strongly support; there is a lack of justification in the public hearing document (PHD) for a reallocation of these species between sectors. These statements from the document support our view:

- "...(N)one of the alternatives are expected to change patterns in landings, discards, or fishing effort in such a way that they negatively impact stock status for any of the three species";
- "...(C)hanges in the commercial/recreational allocation...within the range currently under consideration, may not have notably different impacts on the risk of exceeding the ABC';
- "The results of the updated (economic) model (for Summer Flounder) suggest that the existing $60 / 40$ commercial/recreational allocation is not suboptimal from an economic efficiency perspective"; and
- "...(D)ue to data limitations, more concrete guidance about optimal allocations could not be generated due to the inability to more precisely estimate the recreational sector's value."

In addition, the PHD clarifies "( t )he commercial fisheries have rarely exceeded their quotas by notable amounts over the past 15 years due to close monitoring and reporting" and that all but the status quo alternatives "would reallocate based on time periods when the recreational fishery was effectively less constrained to their limits than the commercial fishery". To do so would be patently unfair and penalize commercial fishermen, and seafood consumers, for staying within the narrow lanes of the MSA requirements.

Finally, we do not agree with references in the PHD that attempt to justify reallocating commercial quota to the recreational sector by minimizing the potential for commercial fishermen and processors to fully utilize our allocations, "due to the impacts of the COVID-19 pandemic on market demand" (Black Sea Bass) and an expectation the "commercial fishery would continue to under-harvest their quota due to market reasons" (Scup).

The Council should not utilize this amendment to further consider modifications to allocations but should expand its objectives to include the consideration of alternative management scenarios and accountability measures, for the recreational fishing sectors. We believe the Recreational Reform Amendment and the upcoming Management Strategy Evaluation workshops provide an opportunity to solicit input on the future management of the recreational summer flounder fishery with a goal of equitably managing the recreational data-driven overages.

When considering historic allocations as "fixed" into the future, however, it is important for the Council to recognize that recreational catch has been anything but "fixed". We also encourage the Council to support an administrative process, in a future action, that creates a rollover provision that could allow quota to be used each year to transfer an overage or an underage from any of the fisheries. This could be utilized into the future through the specifications or framework process.

While we understand why this amendment was initiated, we feel it is important to mention that this is not a situation that has developed only recently and the recreational overages could have been addressed years ago. We have been providing similar comments since back in 2004. Alternatively, a Recreational Fishing Policy approach began in June of 2014 and currently a Recreational Fishing Reform initiative is ongoing. In addition, the MAFMC and ASMFC initiated the Comprehensive Summer Flounder Amendment, in December of 2014, that included
issues similar to what we are dealing with today, but it was cancelled in December of 2016. Since then, the Council has initiated a MSE evaluation of the summer flounder fishery, which the commercial fishing industry looks forward to participating in. It certainly seems logical to put reallocation off until the completion of that process.

We also ask that the Recreational Reform Amendment be used to explore alternatives to develop separate catch monitoring, specifications and accounting for the for-hire and private boat/shorebased angler fisheries, including considering limited access in the for-hire fisheries. We know that our for-hire sector wants this to happen and we support this outcome.

That amendment should review and analyze the Council's advice with Amendment 19 "The Omnibus Recreational Accountability Amendment", which was implemented in December of 2013. This amendment was initiated as a result of an overage in the 2012 recreational black sea bass RHL and to avoid drastic consequences for the recreational black sea bass fishery in fishing year 2014. The Council decided to review recreational fishery alternative management at that time; specifically, the Council wanted to develop alternative management approach that take into account the status of the stock and the biological consequences, if any, resulting from a recreational sector overage.

We recall a statement, at that time, when Agency staff asked, "So the idea is that the recreational fishery may have exceeded its ACL, but if the commercial fishery came in well under its ACL, such that the overall ABC wasn't exceeded, then there's kind of a 'no harm, no foul' to the stock. So, in that case, if the ABC has not been exceeded total catch wise, then we may not need an accountability measure to be triggered even if the recreational fishery exceeded its ACL."

The key elements of Amendment 19 were a rejection of in-season adjustments and pound-forpound paybacks in the recreational fisheries, unless a species is overfished. We feel strongly that this discussion should continue at the Council to address the current situation, and be considered as a primary goal of the Recreational Reform process.

Thank you again for the opportunity to provide our comments to the Council and for their consideration of our concerns and recommendations. We look forward to working with each of you as the Council sets the Reallocation Amendment aside, in favor of working on Recreational Reform protect New Jersey's important recreational fisheries

Sincerely,


Scot Mackey, Executive Director<br>Garden State Seafood Association

# Long Island Commercial Fishing Association <br> P.O. Box 191~Montauk, N.Y. ~11954 Phone 516-527-3099~ Fax 631-668-7654 <br> E-mail Greenfluke@optonline.net <br> www.licfa.org https://www.facebook.com/LICFA Twitter@LICommFishAssn <br> Sustainable Fisheries and Fishermen for the $21^{\text {st }}$ Century 

Dr. Christopher Moore
Executive Director
Mid-Atlantic Fishery Management Council
800 North State Street, Suite 201, Dover, DE 19901

Re : The MAFMC/ASMFC Joint Summer Flounder, Scup and Black Sea Bass commercial/recreational allocation amendment

March 16, 2021

Dear Dr. Moore:

The Long Island Commercial Fishing Association cannot support any other alternative other than "Status Quo" for the Summer Flounder, Scup and Black Sea Bass Commercial Recreational Allocation Amendment.

Specifically that would mean Alternative 1A-4 for Summer Flounder, 1B-1 for Scup, and 1C-4 for Black Sea Bass.
The commercial sector has been held to quotas, limits and pound for pound pay backs for overages for decades, while the recreational sector has looked at quotas as suggestions, not requirements. If a commercial fishermen is caught going over their quota substantially, they risk loss of licenses and jail time. There has never been any comparable or even mild accountability on the recreational side to limit catch, in part because of the participants of the sectors within the recreational fleet can be plentiful and spread out, while monitoring of catch is scarce.

We believe the best possible solution for all is to approve "status quo" for the commercial fleet quickly, and then immediately begin a recreational reform amendment that can focus on accountability and harvest controls for the recreational fleet that allow them to take their discards and turn them into landings, with full accountability measures. We also would hope those measures would allow for increased opportunity for the charter and for hire fleet, including the head boats, so that they too may also thrive through better-monitored open seasons for their businesses and the ability of their customers to bring home fish for their families.


I support "Status Quo" regarding the joint Atlantic State Marine Fisheries Commission/Mid Atlantic Fisheries Management Council reallocation amendment for commercial fishing scup, black sea bass, and fluke quotas.

We cannot afford to lose more commercial quota in these fisheries. Our markets depend on those fish that we receive and sell to other fish buyers, restaurants and consumers. Less commercially-caught fluke, scup and Black Sea bass delivered to our market and auction will be devastating to me and my business, and could force layoffs in an industry that has already been decimated by Covid and restaurant closures.


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Chris Moore, Ph.D., Executive Director<br>Mid-Atlantic Fishery Management Council<br>800 North State Street, Suite 201<br>Dover, DE 19901<br>kdancy@mafmc.org

RE Summer Flounder, Scup, and Black Sea Bass Allocation Amendment
Dear Executive Director Moore:
On behalf of Delmarva Fisheries Association (DFA) and the diverse commercial fishermen we represent, we submit the following comments for consideration and inclusion in the public record regarding the proposed Allocation Amendment:

The Demersal fisheries in our region are vitally important to the seafood retailers and processors they support.

We prefer the Status Quo Option in all three species allocations under consideration (summer flounder, alternative 1a-4; scup, alternative 1b-1; and black sea bass, alternative $1 \mathrm{c}-4$ ).

The commercial fishing industry in our region does not agree with the amendment objective to update the current allocation percentages affecting recreational and commercial TALs.

We appreciate the opportunity to submit these comments and respectfully urge the Council to implement some other alternative to quota reallocations.

Thank you very much for your attention and consideration.

## Sincerely,




National Marine Manufacturers Association

March 16, 2021

Chris Moore, Ph.D., Executive Director Mid-Atlantic Fishery Management Council 800 North State Street, Suite 201
Dover, DE 19901

Dear Dr. Moore,

On behalf of the recreational fishing industry, and east coast anglers, we submit the following comments to the Mid-Atlantic Fisheries Management Council (MAFMC) and Atlantic States Marine Fisheries Commission (ASMFC) on the joint allocation amendment for summer flounder, scup and black sea bass.

Our organizations have long supported recreational management reform in federal fisheries, including to the underlying statute through the development, enactment and implementation of the Modern Fish Act. In addition, in March 2020, we sought specific regional changes through submission of the harvest control rule approach for summer flounder, scup and black sea bass. Unfortunately, pursuit of those measures has not yet resulted in addressing the underlying issues associated with managing the recreational fishery with a quota-based system. We stand committed to continue to assist in the development of recreational management reform, especially the harvest control rule approach. However, it is clear it will take a multifaceted strategy to bring real reform to management of the recreational fishing sector.

Furthermore, managers are currently using the new MRIP FES data in every aspect of fisheries management except for allocation. Although we have continually expressed concerns with the validity of the new MRIP FES data, and its use in management, those concerns were never addressed. Instead, the MRIP FES data were deemed best available science, and quickly incorporated into the stock assessments resulting in rapid shifts in all aspects of fisheries management. Of note, incorporating the MRIP FES data resulted in a $49 \%$ increase in quota/harvest limits for summer flounder, and a likewise 59\% increase for black sea bass. However, these increases are due almost exclusively to the historical correction of recreational harvest estimates. Therefore, the current allocations, based on the old MRIP estimates, are no longer valid as they do not use best scientific information available. Continued use of the old MRIP estimates at this point is a conscious de facto allocation to the commercial sector.

Given the significance of this allocation decision, and its importance to the solutions we seek for the recreational sector, our organizations have deeply deliberated not about which allocation options would benefit us the most, but instead which options would represent the most defensible and balanced solutions for ASMFC and MAFMC to agree on. Therefore, we put forward the following options, not as a
starting point for further negotiations, but instead as the most viable options for final selection that best balance the needs of both sectors. Our intent with the selection of these options is to build a defensible administrative record for the selection of final action on this allocation amendment now.

One of the biggest challenges for choosing final allocation options was the decision of catch versus landings allocation. We know that the discard estimates are the most uncertain datapoints used in the management process, regardless of which sector they come from. The magnitude of discards for the recreational fishery are often a function of regulations instead of angler behavior, and although we know angler behavior plays a role, the accounting process for catch struggles to incorporate the impact of changes in angler behavior on discards.

Additionally, history has told us that turning discards into harvest in the recreational sector is an extremely challenging proposition because when measures are implemented to do that (e.g., lower minimum size, increased bag limit) those changes immediately result in MRIP harvest estimates that exceed the recreational harvest limit (RHL). Although, all these challenges exist, we continue to support measures that convert discards into harvest, especially for these recreational food fish fisheries. To incentivize fisheries managers to tackle this problem head on, and potentially find additional solutions through recreational management reform, we are supporting catch-based allocation.

We urge the MAFMC and ASMFC to take final action on this allocation amendment now, by implementing the following catch-based allocation options.

## Section 4.1.1 Summer Flounder Allocation Alternatives

## We support 1a-2 = Catch Based Allocation. 43\% commercial, 57\% recreational.

Justification: this allocation is supported by multiple approaches using broad baseline years from 20092018 and other recent periods that better reflect ongoing changes in the overall fishery.

Recreational Sector: while this allocation will result in an increase in the RHL, it will most likely result in status quo management measures based on the landings in recent years (see figure below). However, combining this allocation option with recreational management reform may result in more favorable recreational measures that provide more access for the recreational sector especially if managers work specifically on turning discards into harvest.

Commercial Sector: this allocation provides for a commercial quota that is above the average quota over the past three out of four years. Additionally, the example quota under this allocation option would mean only modest reductions from 2019 and 2020 preliminary landings. Lastly, although the example quota represents a small decrease from recent landings, the analysis in the amendment details that lower landings come with over a dollar increase in ex-vessel price. This means the commercial sector can still achieve similar value in its fishery by catching less fish and spending less days on the water potentially reducing safety at sea concerns.


## Section 4.1.2 Scup Allocation Alternatives

We support 1b-3 = Catch Based Allocation. 61\% commercial, 39\% recreational.
Justification: this allocation is supported by multiple approaches using broad baseline years from 20092018 and other recent periods that better reflect ongoing changes in the overall fishery.

Recreational Sector: while this allocation will result in an increase in the RHL, it will most likely result in more restrictive management measures based on the landings in recent years (see figure below). However, combining this allocation option with recreational management reform may result in more favorable recreational measures that provide more access for the recreational sector especially if managers work to turn discards into harvest.

Commercial Sector: this allocation provides for a quota that is above every prior quota in the time series except for 2013 and 2015.


## Section 4.1.3 Black Sea Bass Allocation Alternatives

## We support 1c-2 = Catch Based Allocation. 28\% commercial, 72\% recreational.

Justification: this allocation uses broad baseline years from 2004-2018. This 15-year period is a good balance between historic and recent periods and better reflects ongoing changes in the overall fishery.

Recreational Sector: while this allocation will result in an increase in the RHL, it will most likely mean status quo measures or slight restrictions in measures based on the landings in recent years (see figure below). However, combining this allocation option with recreational management reform may result in more favorable recreational measures that provide more access for the recreational sector especially if managers work to turn discards into harvest.

Commercial Sector: this allocation allows for a commercial quota that exceeds historic landings in all but 4 of the past 16 years. Although the example quota represents a decrease from recent landings, the analysis in the amendment indicates lower landings come with higher ex-vessel price. This means the commercial sector can still achieve similar value in its fishery by catching less fish and spending less days on the water potentially reducing safety at sea concerns.


Section 6.1 Framework/Addendum Provision Alternatives

We support 3b - to allow changes to commercial/recreational allocations through framework actions/addenda. This alternative would provide flexibility to adapt to new information in a timely fashion as it becomes available. This alternative would not preclude the MAFMC and ASMFC from using the amendment process if that is a preferred pathway to make changes.

We further justify our support for these options based on the following two sections, (1) Economics of Recreational Fishing (2) Fishery Allocation Review Policy and MSA Considerations.

## 1. Economics of Recreational Fishing

The recreational fisheries for summer flounder, scup and black sea bass are major contributors to America's economy and support many fishing-dependent businesses across the Mid-Atlantic and New England Regions. A Department of Commerce report, "Fisheries Economics of the United States

2016," details the economic contributions of these fisheries to the various regions along the Atlantic coast. Saltwater recreational fishing along the Atlantic is enjoyed by 6 million anglers annually, contributing $\$ 11.3$ billion to the economy and supporting 120,236 jobs. The jobs created by these fisheries are the lifeblood of our Atlantic coastal communities as more than $90 \%$ of the sportfishing and boating industry is made up of small businesses. In addition to the economic benefits, many millions of anglers target summer flounder, scup and black sea bass to take a fish home to eat. This allocation decision not only has implications for coastal economies, but the health and wellness of our citizens that catch fish for food during this COVID-19 pandemic.

Furthermore, the sportfishing and boating industry consistently plays an integral role in stewardship of our fisheries by directly funding conservation and habitat restoration efforts through licensing fees and excise taxes set up through the Sport Fish Restoration and Boating Trust Fund. In 2020 alone, $\$ 414.26$ million was apportioned to the states to fund fishery conservation programs with the money generated from excise taxes on fishing equipment and motorboat fuel. Our industry is proud to be a partner in this cooperative approach to fisheries management because we know that fisheries conservation and fishing access afforded by these funds directly supports outdoor recreation and the American economy.

## 2. Fishery Allocation Review Policy and MSA Considerations

In 2019, as a follow up to NMFS Policy Directive 01-119, the MAFMC adopted a time-based and public interest allocation review policy. More specifically, the policy states allocation will be reviewed at least every 10 years; however, the Council may choose to conduct reviews more frequently based on substantial public interest in allocation review or other factors.

The current allocation is based on landings or catch from the 1980s to early 1990s and has never been changed. We selected allocation options that update the basis for allocation with recent catch history to better reflect the current fishery. Also, through this letter and allocation amendment process, we continue to express explicit public interest in the ASMFC and MAFMC taking action on this allocation amendment now. We hope that the MAFMC and ASMFC consider allocation changes based on updated MRIP FES data, and their own allocation review policy, as more than enough justification to pursue allocation changes in these fisheries that have had the same allocation for almost 30 years.

We appreciate that the MAFMC and ASMFC have included taking final action on this allocation amendment as part of their 2021 action plans and as a result, have the necessary staff resources to assist NOAA Fisheries with the completion of this action given continued concerns by the agency regarding the ability to complete both allocation and recreational management reform in 2021.

Lastly, following MSA process, the SSC has determined that the new MRIP FES data are best scientific information available (BSIA). As already noted, ASMFC and MAFMC are using the new MRIP data in stock assessments to determine stock status and in the fisheries specifications process to establish the acceptable biological catch, commercial quotas, and recreational harvest limits. National Standard 2 does not allow the Councils to pick and choose when it uses BSIA and therefore, ASMFC and MAFMC must use the MRIP FES data to address allocation through final action on this amendment. If ASMFC and MAFMC do not use the MRIP FES data for allocation, then it must reconsider the use of MRIP FES data in all other aspects of the fishery management and science process.

Thank you for the opportunity to comment on this allocation action. We urge the MAFMC and ASMFC to take final action on allocation now and stand ready to continue to assist on the follow through of recreational management reform.

Sincerely,

Glenn Hughes, President
American Sportfishing Association

Jeff Angers, President
Center for Sportfishing Policy

Patrick Murray, President
Coastal Conservation Association

Chris Horton, Fisheries Policy Director
Congressional Sportsmen's Foundation

Frank Hugelmeyer, President
National Marine Manufacturers Association

Jim Donofrio, President
Recreational Fishing Alliance

From:
Sent:
To:
Subject:

## RECOMMENDATION

\author{

1) CHANGE IN REALLOCATION <br> 2) TRANSFERS <br> RECOMMENDATION STATUS QUO <br> 3) FUTURE AMENDMENT RECOMMENDATION REQUIRE AMENDMENT
}

## COMMENTS

## REDUCED QUOTA IMPACTS

I was surprised that "estimate" is used 28 times in Section 3. INTRODUCTION AND PURPOSE. I would hope that more precise analysis, with confidence levels would be used to impact the lives and jobs of those in the commercial fishing industry. Reduced catch impacts the income and staffing of those left in this depleted industry. I did not see any reference to this approach being PEER reviewed.
Commercial Quota reduction impacts American consumers of fresh wild fish by reduced volume and higher prices. Historically this void has been filled by foreign product, which has been suspect of questionable hygiene practices.

## LETS ELIMINATE DEAD DISCARDS

Dead discards, a common problem in these fisheries, has not been addressed for the last 30 years. Fishery's management, years ago, increased the size of net mesh used in summer flounder fishery to reduce discards. They also increased the minimum size from 13 to 14 inches and significantly increased dead discards. The recreational fishery has seen the minimum retention size go up to where the focus is on harvesting female fish and skyrocketing the dead discard rate.

Fisheries management's lack of ability or interest in reducing dead discards needs to resolved immediately. Many suggestions have been proposed but lacks action. For immediate implementation, institute a DISCARD BAN in both the commercial and recreational fisheries. This ban exempts protected species and species that are not open.
If a fish hits the deck, of a commercial fishing vessel, it must be kept. No size minimum. Over trip limits will be penalized. Captains have the ability to increase mesh size, trawl speed, etc. to focus on maximizing their catch profit. Recreational anglers would have a creel limit such as todays 3 fish limit in New Jersey. They could catch 3, keep 3, and must quit. Catch and release is banned. To obtain larger fish, anglers can use larger hooks as was proposed and proven in BREP presented to the MAFMC and peer subsequently reviewed. The benefits of a DISCARD BAN are a larger biomass and larger female population.

## WHERE IS THE PLAN TO INSURE RECREATIONAL COMPLIANCE?

The data presented indicates that the recreational fishery has been out of compliance for 25 years. I am not suggesting any sort of payback, but I see no plan to insure that practices and processes are in place to insure that this cannot occur again. I believe the reallocation discussion should be tabled until fisheries management implements and proves over time that this fisher can comply with their targets.

## COMPARING APPLES AND ELEPHANTS

Looking back to the 1980's, the original base years for specifically summer flounder, using straight mathematical formulas is froth with errors. The commercial fleet was much larger, the private boat fleet was smaller and the party and for hire fleets were larger. Analysis of todays fishing results and with respect fishing results 30-40 years ago without accounting for the technological advances, is mind blowing. Electric trolling motors can keep you in one spot, without the hassle of anchoring or keep you on a track or edge of a channel. Electronics can scan the depth, indicate fish presence, or return you to the exact spot. Communications allows having a computer in you hands and can keep you and friends in contact, benefiting those involved to focus where the fish are now. In the 1980s "pin fishermen" were common. Pin fishermen caught lots of fish and legally sold their catch for "pin money" ( Paid for expenses.) These hook and line fishermen would be considered
the $20 \%$ of the anglers who caught $80 \%$ of the fish. To understand the impact of these pin fishermen you should look at the number of fishermen who applied for and/or received commercial licenses or permits. Also back then, mates were tipped fish as their reward. When back at the dock, these fish were sold to waiting customers or had prearranged sales. Sales and barter makes these commercial transactions. Based on the above, the commercial/recreation allocation should be 80/20.

## CARL BENSON

| From: | Julie Lofstad [jlofstad@southamptontownny.gov](mailto:jlofstad@southamptontownny.gov) |
| :--- | :--- |
| Sent: | Tuesday, March 16, 2021 5:03 PM |
| To: | Kiley Dancy |
| Subject: | Proposed quota reallocation for NYS commercial fishermen |

I am a Southampton Town Councilwoman, whose constituents include commercial fishermen from the port of Shinnecock in Hampton Bays.

I strongly oppose any reduction in quota, which will be used, if the proposal is adopted, for recreational discards instead.

Our local commercial fishing industry is a huge economic generator for our region. The commercial fleet directly or indirectly supports many other local businesses. Commercial fishing families are dependent upon the fish caught with these quotas to pay their mortgages and feed their children. To further and severely reduce the fisherman's ability to catch his product will have devastating consequences.
The local commercial fishing fleet in an important piece of the food supply network. Further limiting of quotas will have a negative impact on our supply chain.

I urge you to NOT take any quota from our commercial fishermen.

It makes no sense to do so, when these are the very people who feed our communities.

Julie Lofstad
Councilwoman
Town of Southampton

Sent from my iPhone

From:
Sent: Tuesday, March 16, 2021 4:45 PM
To:
Subject: Re-allocation amendment - SAVE THE COMMERCIAL FISHERMEN WHO FEED THE WORLD!

My name is Raymond Lofstad. I'm a commercial fisherman based at Port of Shinnecock, in Hampton Bays, NY. I have been a commercial fishermen for over 50 years - first working for my father and uncle on their boats in the 1970's. Through hard work and perseverence, I was able to buy my own boat in 1992, and I continue to fish for my livelihood. My boat, FV Ocean Fresh, supports not only my family, but the captain and his family, and our crew and their families. We provide fresh, wild-caught seafood to our community and beyond. We are an integral part of our Country's food safety and supply chain.

I implore that the joint MAFMC/ASMFC commercial recreational allocation amendment for the scup, black sea bass, and fluke fisheries remain as it is, for all three fisheries. New York cannot afford to lose more commercial quota in any of these fisheries. Any additional decrease in the current quota will be devastating to me and my fishing community, and the businesses that support us, which include local restaurants, fish markets and other fishing dependent businesses, all devastated by current COVID related events.

I do support creating a recreational reform amendment immediately, so the recreational sector can turn discards into landings.

But again, I cannot support the council and commission taking from my quotas - that provide sustenance to my neighbors and to the world - and turning them into the recreational sector's dead discards. That was never the intent of Magnuson. We should depend MORE on our local commercial fishermen to provide us with seafood. We should not make it more difficult for them to do their job. Re-allocation will make the fisherman's job near impossible, and likely speed up the extinction of an endangered species - your local commercial fisherman and fishing families.

Respectfully,
Ray Lofstad
FV Ocean Fresh

March 16, 2021

Dr. Christopher Moore

Executive Director
Mid-Atlantic Fishery Management Council 800 North State Street
Suite 201
Dover, DE 19901

Dear Director Moore,
I am writing to comment on the Summer Flounder, Scup, and Black Sea Bass Commercial/Recreational Reallocation Amendment.

The Town Dock supports No Action on this Amendment. The commercial fishery plays a critical role in providing fresh, sustainable, domestic protein to this country via retail stores, fish markets and restaurants.
With restaurants closed during the Covid-19 pandemic people turned to their retail stores and local docks for access to seafood. For those that could not afford the retail products they were provided access to seafood through non-profit donations from fish right off our docks and into their hands. Any reallocation taken from the commercial sector and given to the recreational sector is taking US supplied protein out of the public supply chain and preventing some markets from recovering, some from fully developing or in some cases, like the donation programs, preventing them from continuing to get food to those in need.
The commercial sector should be encouraged to increase US caught seafood rather than having opportunities being taken away from them, which is exactly what this amendment will do. Moving in this direction will only make the US rely on imported seafood even more. Something the US government has supported changing over the years.

It is also important to remember that the commercial sector is held to a strict quota with in-season possession limit changes that are quickly put in place if needed to prevent overharvest. The recreational sector is not held to those same standards, nor does it have the same strict accountability measures. The logical step in resolving that issue is by reforming the management of the recreational sector to make sure they are just as accountable and that their catch is accurately counted, as the commercial sector is.

45 STATE STREET | PO BOX 608
NARRAGANSETT, RI 02882
The recreational sector can grow unconstrained, unlike the commercial sector. With this in consideration will there always be an effort to reallocate fish away from the fixed number of participants in the commercial sector to give to the ever-growing recreational sector? If so, where does it stop?

The recreational sector provides a wonderful opportunity for entertainment for a part of the US's population, but we do not think we should shift resources from a sector that provides food and nutrition to people all over the country to those that provide it to a very few.

Thank you for taking our comments into consideration.

Sincerely,
Katie Almeida
Senior Representative, Government Relations and Sustainability.

Dr. Chris Moore, Executive Director,

Comment on Fluke/Scup/BSB Reallocation Amendment.
"My name is Dick Grachek, I am a CT and RI commercial fisherman, I have been a commercial fishermen for 50 + years, my boat is the F/V Anne Kathryn, and the only action I can support for the joint MAFMC/ASMFC commercial recreational allocation amendment for the scup, black sea bass, and fluke fisheries is to maintain status quo for all three fisheries. We cannot afford to lose more commercial quota in these fisheries. It will be devastating to me and my fishing community and the businesses that support us.

I also support starting a recreational reform amendment immediately so the recreational sector can help their fisheries turn discards into landings.

But I cannot support the council and commission taking from my quotas that feed people and turning them into the recreational sector's dead discards. That was never the intent of Magnuson.

I have over $\$ 300 \mathrm{~K}$ wrapped up in state landing permits in order to land these fish. And these are fisheries that are essential to the survival of my fishing operation, which is the sole income source for four families. This past year the fish prices are some $50 \%$ to $70 \%$ less than they were before the pandemic. The last thing we need is to lose more allocation to the recreational community. We are producing badly needed clean unadulterated food for people who can't afford a private recreational boat!

Any more negative pressure and east Coast commercial fishing operations will be jeopardized.

Thank You,
Dick Grachek, owner and manager RiverCenter Marine LLC,
F/V Anne Kathryn, Stonington CT and Point Judith, RI


# Blue Moon Fish, Inc. 1735 Breakwater Road Mattituck, NY 11952 <br> 631-298-4036 

March 16, 2021

Dr. Christopher Moore
Executive Director
Mid-Atlantic Fishery Management Council
800 North State Street, Suite 201
Dover, DE 19901

## Re: Fluke/Scup/Sea Bass Allocation Amendment

Dear Dr. Moore:

We are a commercial fishing family from Long Island, NY, as well as a licensed seafood dealer, with 48 years in the business.

It is imperative that the joint MAFMC/ASMFC Commercial/Recreational Allocation Amendment for scup, black sea bass, and fluke NOT be changed for all three fisheries. New York already has much less of an equal share of the commercial fishing quota for the Eastern Seaboard. Losing more commercial quota will severely hurt us as fishermen and negatively affect the local businesses and seafood consumers that depend on us.

Lowering the commercial quota now would be especially bad timing after one year of a pandemic that has cost many commercial fishermen and related local businesses much of their income. The public needs to have a source of fresh, local fish available to eat as part of a healthy food supply chain, particularly at this difficult time when many folks are experiencing food insecurity.

Thank you for your consideration.
Sincerely,

Alexander A. Villani
Stephanie Villani
Blue Moon Fish, Inc.
cc: Bonnie Brady, LI Commercial Fisherman's Association

Chrs Moore, Ph.D.
Executue Durector
Med-Atlantuc Fishery Manogenent Councel
Notr Stete Street Sute dor
Dover. DE 19901
I ane cureting to reply to the MAFACAS MACC webisar on March 2,2021.

I am a commercuil fisterman - ther J. Rader bout Sthriash, ont of Montaut, M.g.

I quew up is a fishing fasiuly, wonking a chacter and Oper Burts, untul suy family purctosed the Opin Beat Marlis. My fathue, burther and d sas sueral baats, markin, getting to know many recuutioncel fishernen. These fisheisen caught of isk for ther famius.

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I quilly support the status quo fun these fibterius

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I do not belevere that thet is the intirlen of Maynuon.

Therefore, il support, osly, the Stitus quo of cormencial qaitis of fluke, suyp and bleck Sue Bass.


Johe IL RADE
P. O.B.BC171

63 Gavaéster Ave
morrosurg, My 21954 $631-668=52 \%$

Pist I enn a commercial Rod + Ruef fishersin, So syycitcs asl discieds one within lnw quotrs.

| From: | John Kolano [hdcars@aol.com](mailto:hdcars@aol.com) |
| :--- | :--- |
| Sent: | Wednesday, March 17, 2021 1:45 PM |
| To: | Kiley Dancy |
| Subject: | Fluke scup sea bass |

## RECOMMENDATION

1) CHANGE IN REALLOCATION RECOMMENDATION STATUS QUO
2) TRANSFERS
3) FUTURE AMENDMENT

Comments
Doing regression analysis going back 30-40 years with all the technology advances Boats, Engines, Electronics, And Communications defies all logic. You may draw the line, but its only a line....meaningless.

Sent from my iPhone

| From: | philip [psuwelsh@gmail.com](mailto:psuwelsh@gmail.com) |
| :--- | :--- |
| Sent: | Thursday, March 18, 2021 3:13 PM |
| To: | Kiley Dancy |
| Subject: | Allocation amendment comments |

Hello,

Here are my comments on this:

Based on the presentations made, it is obvious that the recreational fishing sector be allocated more \%. I have been following this and attended the latest Webinars, both for the MAMFC and the NJ state meetings, and it is clear that without a change a negative adjustment in the NJ regs could easily occur in 2022. I also find that the commercial sectors issue with how the recreational sector reports a red herring meant to either give the Council "cover" to vote status quo OR table the decision. This just cannot happen. Asking the recreational sector to report each trip is just not administratively feasible nor reliable. Are we really going to ask someone who fished the beaches for a hour to report in? Again, a red herring.
From the presentation, the commercial sector would be giving up possibility while the recreational sector would finally get relief it desperately needs. For black sea bass, it is critical that an adjustment be made, especially considering the rebuilt stock that even the commercial sector has acknowledged.

Please note that I submitted this on the written comment link also and that there is a discrepancy in due date on the MAMFC meeting sites. One say March 16 and another says March 24.

Thank you,

Philip Welsh
Stone Harbor, NJ
518.573.6165

| From: | Mary Clark Sabo |
| :--- | :--- |
| Sent: | Wednesday, March 24, 2021 1:36 PM |
| To: | Kiley Dancy; Beaty, Julia; Coutre, Karson |
| Subject: | FW: Form Submission - 2021-04 Public Comments |

From: Squarespace [form-submission@squarespace.info](mailto:form-submission@squarespace.info)
Sent: Tuesday, March 23, 2021 5:52 PM
To: Mary Clark Sabo [msabo@mafmc.org](mailto:msabo@mafmc.org)
Subject: Form Submission-2021-04 Public Comments
$\qquad$
$\qquad$

Sent via form submission from Mid-Atlantic Fishery Management Council

Name: George Burns

Email: gmoney529@aol.com

Topic: Summer Flounder, Scup, and Black Sea Bass Commercial/Recreational Allocation Amendment

Comments: Feel we should be allowed A 4 fish limit since we haven't overfished the species in 4-5 years

# SEAFOOD HARVESTERS 

OF AMERICA
1717 K Street NW, Suite 900, Washington, D.C. 20006
(703) 794-5114 • seafoodharvesters.org

March 24, 2021
Dr. Christopher Moore
Executive Director
Mid-Atlantic Fishery Management Council
800 North State Street, Suite 201
Dover, DE 19901

## Dear Dr. Moore:

We write to you today on behalf of our 19 member organizations and thousands of commercial fishermen from Alaska to Maine. We are proud stewards of America's seafood, our nation's strategic protein reserve and a critical component of our country's food security.

Reallocation is one of the most controversial issues that fishery managers face. In many cases throughout the country, we have seen efforts to reallocate commercial quota from the highlyaccountable, limited access commercial sector that counts fish to a much-less-accountable, open access sector with varying levels of guesswork as to what's actually being caught.

Reallocation can do very real financial damage to commercial fishing businesses, coastal fishing communities, and the supply chain that helps feed America. Reallocation uproots our business plans and our ability to run successful small businesses.

It is also inherently unfair to penalize one sector for playing by the rules while rewarding the other sector for flouting them.

And we cannot ignore the conservation consequences of reallocating from an accountable commercial sector to the uncertain recreational sector, where doing so may impact discards and discard mortality, as well as rebuilding timelines which could mean a reduction in quotas for all fishermen; in the case of the latter, commercial fishermen are unfairly hit with a "double whammy" where they lose quota to reallocation and to lower catch limits.

## Fishermen United for the Future.

[^16]We cannot support that happening here.
To be clear-we are strong supporters of improving the accuracy, precision, and timeliness of recreational catch and effort data. The more accountable the recreational sector becomes, the more access they will receive. And they deserve the chance to experience the benefits that come with accountability, as we did.

We urge the Mid-Atlantic Fishery Management Council to look forward—not backward—and focus its efforts on crafting meaningful solutions for the recreational sector that better count fish and don't harm commercial fishermen, but instead improve accountability and therefore improve their sustainable access to the fish stocks in the region.

We appreciate your consideration.
Sincerely,
Christopher Brown
Leigh Habegger
President Executive Director

# Summer Flounder, Scup, and Black Sea Bass Commercial/Recreational Allocation Amendment 

## PUBLIC HEARING DOCUMENT



January 2021

Prepared by the
Mid-Atlantic Fishery Management Council and the
Atlantic States Marine Fisheries Commission



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### 2.0 INSTRUCTIONS FOR PROVIDING PUBLIC COMMENTS

The Mid-Atlantic Fishery Management Council (Council) and the Atlantic States Marine Fisheries Commission (Commission), through its Summer Flounder, Scup and Black Sea Bass Management Board (Board), are seeking public comment on the Summer Flounder, Scup, and Black Sea Bass Commercial/Recreational Allocation Amendment. Specifically, the Council and Board are asking commenters to identify their preferred allocation alternatives by species under Section 4, and their preferred quota transfer process and caps alternatives under Section 5. Additionally, comments are sought regarding whether future changes to these measures can be made through the framework/addendum process versus the amendment process.

The Council and Commission work cooperatively to develop commercial and recreational fishery regulations for summer flounder, scup, and black sea bass from Maine through North Carolina (north of Cape Hatteras for scup and black sea bass). The National Marine Fisheries Service (NMFS) serves as the federal implementation and enforcement entity. This cooperative management endeavor was developed because a significant portion of the catch for all three species is taken from both state (0-3 miles offshore) and federal waters (3-200 miles offshore).

Comments may be submitted at any of five virtual public hearings to be held between February 17 and March 2, 2021 or via written comment until March 16, 2021. Written comments may be sent by any of the following methods:

1. Online at https://www.mafmc.org/comments/sfsbsb-allocation-amendment
2. Email to the following address: kdancy@mafmc.org
3. Mail or Fax to:

Chris Moore, Ph.D., Executive Director
Mid-Atlantic Fishery Management Council
800 North State Street, Suite 201
Dover, DE 19901
FAX: 302.674.5399
If sending comments through the mail, please write "Summer Flounder, Scup, Sea Bass Allocation Amendment" on the outside of the envelope. If sending comments through email or fax, please write "Summer Flounder, Scup, Sea Bass Allocation Amendment" in the subject line.

All comments, regardless of submission method, will be compiled for review and consideration by both the Council and Commission. It is not necessary to separately submit comments to the Council and Commission or submit the same comments through multiple channels.

You are encouraged to attend any of the following five virtual public hearings and to provide oral or written comments at these hearings. Each hearing is targeted toward regional groupings of states or an individual state; however, anyone is welcome to participate in any hearing.

| Date and Time | Regional Grouping and Webinar Link |
| :--- | :--- |
| Wednesday, February 17 <br> 6-8pm | Massachusetts and Rhode Island |
| Thursday, February 18 <br> 6-8pm | New Jersey |
| Wednesday, February 24 <br> 6-8pm | Delaware and Maryland |
| Monday, March 1 <br> 6-8pm | Virginia and North Carolina |
| Tuesday, March 2 <br> 6-8pm | Connecticut and New York |

Webinar Information: You can access GoToWebinar through your computer, tablet, or smartphone. To download the software, click here or search for "GoToWebinar" in the app store on your smart phone or tablet. We recommend you register for the hearing well in advance. GoToWebinar will provide you with a link to test your device's compatibility with the webinar. If you find your device is not compatible, please contact the Commission at info@asmfc.org (subject line: GoToWebinar help) and Commission staff will try to get you connected. We also strongly encourage participants to use the computer voice over internet (VoIP) so you can ask questions and provide input at the hearing. To attend the webinar by phone in listen only mode, dial 1-877-309-2074 and enter access code 128-060-916. Those joining by phone only will be limited to listening to the presentation and will not be able to provide input. In those cases, you can send your comments to staff via email, mail, or fax at any time during the public comment period.

To register for a public hearing please click here: Public Hearing Registration. Webinar information will also be posted on the event calendar at https://www.mafmc.org/.

For additional information and updates, please visit: https://www.mafmc.org/actions/sfsbsb-allocation-amendment. If you have any questions, please contact either:

## Commission Contact

Dustin Colson Leaning
dleaning @ asmfc.org
703.842.0714

## Council Contact

Kiley Dancy
kdancy@mafmc.org
302.526.5257

## Tips for Providing Public Comment

We value your input. To be most effective, we request that your comment include specific details as to why you support or oppose a particular alternative. Specifically, please address the following:

- Which proposed alternative(s) do you support, and which do you oppose?
- Why do you support or oppose the alternative(s)?
- Is there any additional information you think should be considered?


### 3.0 INTRODUCTION AND AMENDMENT PURPOSE

### 3.1 Amendment Purpose

The purposes of this amendment are to:

1) Consider modifications to the current allocations between the commercial and recreational sectors for summer flounder, scup, and black sea bass (Section 4.0). The commercial and recreational allocations for all three species are currently based on historical proportions of landings (for summer flounder and black sea bass) or catch (for scup) from each sector. The current allocations were set in the mid-1990s and have not been revised since that time.
2) Consider the option to transfer a portion of the allowable landings each year between the commercial and recreational sectors, in either direction, based on the needs of each sector (Section 5.0). The current Fishery Management Plan (FMP) does not allow for such transfers.
3) Consider whether future additional modifications to the commercial/recreational allocation and/or transfer provisions can be considered through a future FMP addendum/framework action, as opposed to an amendment (Section 6.0).

Several other issues identified during scoping for this action were considered by the Council and Board but have since been removed from further consideration in this amendment. Some of those issues will be further considered through other initiatives or actions. For more information, see the documents associated with past meetings for this amendment, available at:
https://www.mafmc.org/actions/sfsbsb-allocation-amendment.

### 3.2 Need for Action

The commercial and recreational allocations for all three species are currently based on historical proportions of landings (for summer flounder and black sea bass) or catch (for scup) from each sector. Recent changes in how recreational catch is estimated have resulted in a discrepancy between the current levels of estimated recreational harvest and the allocations of summer flounder, scup, and black sea bass to the recreational sector.

Recreational catch and harvest data are estimated by the Marine Recreational Information Program (MRIP). In July 2018, MRIP released revised time series of catch and harvest estimates based on adjustments to its angler intercept methodology, which is used to estimate catch rates, as well as changes to its effort estimation methodology, namely, a transition from a telephone-based effort survey to a mail-based effort survey for the private/rental boat and shore-based fishing modes. ${ }^{1}$ These revisions collectively resulted in much higher recreational catch estimates compared to previous estimates, affecting the entire time series of data going back to 1981.

The revised MRIP estimates were incorporated into the stock assessments for summer flounder in 2018 and for scup and black sea bass in 2019. This impacted the estimated stock biomass and resulting catch limits for these species. In general, because the revised MRIP data showed that more fish were caught than previously thought, the stock assessment models estimated that there were more fish available to catch, which in turn impacted the biomass estimates derived from the

[^17]stock assessments. However, for each species, the revised MRIP data were one of many factors that impacted the stock assessments and the resulting catch limits. Other factors such as the addition of data on recent recruitment also impacted the assessment model results.

- For summer flounder, the revised MRIP estimates were $30 \%$ higher on average compared to the previous estimates for 1981-2017. The differences between the previous and revised estimates tended to be greater in more recent years compared to earlier years. Increased recreational catch resulted in increased estimates of stock size compared to past assessments. The higher biomass projections resulted in a $49 \%$ increase in the commercial quota and recreational harvest limit (RHL) for 2019. Expected recreational harvest in the new MRIP currency was close to the revised RHL; therefore, recreational measures could not be liberalized in 2019 despite the $49 \%$ increase in the RHL.
- For scup, the revised MRIP recreational catch estimates were, on average, $18 \%$ higher than the previous estimates for 1981-2017. The differences between the previous and revised estimates tended to be greater in more recent years compared to earlier years. The MRIP data have a lesser impact in the scup stock assessment model, with the 2019 operational stock assessment showing minor increases in biomass estimates compared to the 2015 assessment. Due to below-average recruitment in recent years, the scup catch and landings limits for both the commercial and recreational sectors decreased slightly as a result of biomass projections provided with the 2019 operational stock assessment.
- For black sea bass, the revised MRIP recreational catch estimates increased the 1981-2017 total catch by an average of $73 \%$, ranging from $+9 \%$ in 1995 to $+161 \%$ in 2017. As with summer flounder and scup, the differences between the previous and revised estimates tended to be greater in more recent years compared to earlier years. These increased catch estimates combined with an above average 2015 year class contributed to a notable scaling up of the spawning stock biomass estimates from the previous assessment. As a result, the 2020 black sea bass commercial quota and RHL both increased by $59 \%$ compared to 2019. Recent harvest under the new MRIP data was higher than the 2020 RHL, therefore, recreational management measures could not be liberalized.

Some changes have also been made to commercial catch data since the allocations were established. For example, the time series of commercial scup discard estimates was revised through the 2015 scup stock assessment. For the 1988-1992 allocation base years, the current estimates of scup commercial catch are on average $8 \%$ lower than the estimates used to set the allocations under Amendment 8.

The commercial and recreational data revisions not only impact the catch estimates, but also significantly affected our understanding of the population levels for all three fish stocks. This has management implications due to the fixed commercial/recreational allocation percentages defined in the FMP for all three species. These allocation percentages do not reflect the current understanding of the recent and historic proportions of catch and landings from the commercial and recreational sectors. These allocation percentages are defined in the Council and Commission FMPs; therefore, they can only be modified through an FMP amendment. This amendment will consider whether the allocations are still appropriate and meeting the objectives of the FMP, as well as other potential changes related to how the allocations are managed, as described in Sections 5 and 6.

### 3.3 What Happens Next?

This document is intended to solicit public comment via public hearings in February and March 2021 and through written input during the public comment period which will be open through March 16, 2021. Following this period, written and oral comments will be compiled and provided to the Council and Board for review. These comments will be considered prior to taking final action on the amendment, which is tentatively scheduled for April 2021. While the Commission's actions are final for state waters ( $0-3$ miles from shore) upon approval of the amendment unless otherwise specified, the Council's recommendations are not final until they are approved by the Secretary of Commerce through the National Marine Fisheries Service. Therefore, the timing of full implementation of this action will depend on the federal rulemaking timeline. This rulemaking process is expected to occur in 2021, with the intent for revised measures (if applicable) to be effective at the start of the 2022 fishing year.

### 4.0 COMMERCIAL/RECREATIONAL ALLOCATION ALTERNATIVES AND IMPACTS

This section describes the alternatives under consideration for the commercial/recreational allocation percentages for summer flounder, scup, and black sea bass (Section 4.1), along with their expected impacts (Section 4.2). The basis for each alternative is described in more detail in Appendix B. The range of allocation alternatives for each species includes options that would maintain the current allocations as well as options to revise them based on updated data using the same or modified base years. Section 4.3 describes options to phase in any allocation changes over multiple years, as well as the expected impacts of these phase-in provisions.

Alternatives for both catch-based and landings-based allocations are under consideration for all three species. As described in more detail in Appendix A, the same types of catch and landings limits are required under both catch and landings-based allocations (i.e., commercial and recreational annual catch limits, or ACLs, and annual catch targets, commercial quota, and RHL). Dead discards (i.e., discarded fish that are assumed to die) ${ }^{2}$ must be accounted for in the catch limits under both allocation approaches. Under both approaches, dead discards are subtracted from the catch limits to derive the sector-specific landings limit. The main difference between these approaches is the step in the calculations where the commercial/ recreational allocation percentage is applied. This has implications for how those dead discards are factored into the calculations.

Catch-based allocations (currently in place for scup) apply the commercial/recreational allocation at the acceptable biological catch ( ABC ) level, meaning the entire amount of allowable catch (i.e., the ABC, which includes landings and dead discards) would be split based on the commercial/recreational allocation percentage defined through the alternatives listed below. Under a landings-based allocation (currently in place for summer flounder and black sea bass), the ABC is first split into the amount expected to come from landings and the amount expected to come

[^18]from dead discards. The expected landings amount is then split according to the commercial/recreational allocation percentage defined through the alternatives listed below.

It is important to note that because expected dead discards are handled differently under catch and landings-based approaches, the allocation percentages under these two approaches are not directly comparable. To allow for comparison across all alternatives, example resulting commercial quotas and RHLs for each species are provided in Section 4.2 (see Appendix C for details on how these example quotas and RHLs were calculated). Actual resulting commercial quotas and RHLs will vary based on annual considerations.

Table 1 provides a summary comparison of the key differences and similarities between catchand landings-based allocations. The implications of catch vs. landings-based allocations are further discussed in Appendix A and in Section 4.2.

Table 1: Summary of the differences and similarities between catch- and landings-based allocations.

| Catch-based allocations | Landings-based allocations |
| :---: | :---: |
| - Currently in place for scup. <br> - Allocation at ABC level as first step: total catch (landings + dead discards) split into recreational and commercial ACLs based on allocation percentage defined in FMP. <br> - The entire ABC is always split among the sectors based on the allocation defined in the FMP, regardless of recent trends in landings and discards by sector. Because of this, changes in landings and dead discards in one sector do not influence the other sector's ACL. <br> - Expected dead discards are calculated separately for each sector to subtract from the sector ACLs to determine the sector landings limits | - Currently in place for summer flounder and black sea bass. <br> - ABC is first split into the amount expected to come from landings (Total Allowable Landings, or TAL) and the amount expected to come from dead discards. The methodology for this split is not pre-defined and is usually based on recent trends in landings and dead discards, as well as stock assessment projections where possible. <br> - Allocation at TAL level: TAL is allocated among the commercial and recreational sectors based on the allocation percentage defined in the FMP. <br> - Total expected dead discards are split by sector based on different methods, usually recent trends in discards by sector. The sector specific expected dead discards are subtracted from the sector ACLs to derive the sector landings limits. <br> - Changes in landings and dead discards in one sector over time can impact the catch and landings limits in both sectors by impacting the division of the ABC into expected landings and expected dead discards. |

## Under Both Approaches:

- Commercial and recreational ACLs, annual catch targets, and landings limits (i.e., commercial quota and RHL) are required.
- Expected dead discards must be projected and accounted for by sector.
- Only dead discards (discarded fish that are assumed to die) are accounted for in setting and evaluating catch limits. Neither allocation approach includes consideration of released fish that are assumed to survive.
- Accountability measures are required for each sector and tied to sector-specific ACLs. Each sector is held separately accountable for any ACL overages.
The main difference between approaches is the step in the calculations at which the commercial/recreational allocation percentages are applied, which has implications for how expected dead discards are projected and divided by sector.


### 4.1 Commercial/Recreational Allocation Alternatives

### 4.1.1 Summer Flounder Allocation Alternatives

Table 2 lists the alternatives under consideration for the commercial/recreational summer flounder allocation percentages. The current allocations for summer flounder are landings-based and are represented by the no action/status quo alternative (alternative 1a-4). As described above, both catch- and landings-based alternatives are considered. The percentages under these alternatives are not directly comparable due to differences in how dead discards are addressed under catch-based allocations and landings-based allocations. Appendix C provides examples of potential commercial quotas and RHLs under each alternative to allow for more direct comparisons between the catch and landings-based alternatives. Appendix A provides more details on the differences between catch- and landings-based allocations and the potential implications of each approach. The rationale behind each allocation alternative is described in more detail in Appendix B.

The alternatives in this section are mutually exclusive, meaning the Council and Board can only choose one of the alternatives from 1a-1 through 1a-7.

Table 2: Summer flounder commercial/recreational allocation alternatives. The current allocations are highlighted in green.

| Summer Flounder Catch-Based Allocation Percentages |  |
| :---: | :---: |
| Alternative | Basis (see Appendix B for details) |
| 1a-1: 44\% commercial, 56\% recreational | 2004-2018 base years |
| 1a-2: 43\% commercial, 57\% recreational | Supported by multiple approaches: 2009-2018 base years, approximate status quo harvest per sector compared to 2017/2018, and average of other approaches approved by Council/Board in June 2020 |
| 1a-3: 40\% commercial, $\mathbf{6 0 \%}$ recreational | 2014-2018 base years |
| Summer Flounder Landings-Based Allocation Percentages |  |
| Alternative | Basis (see Appendix B for details) |
| 1a-4: $60 \%$ commercial, $40 \%$ recreational | No action/status quo (1980-1989) |
| 1a-5: 55\% commercial, 45\% recreational | Same base years, new data (1981-1989; 1980 data unavailable) |
| 1a-6: 45\% commercial, 55\% recreational | Multiple approaches: 2004-2018 and 2009-2018 base years |
| 1a-7: 41\% commercial, 59\% recreational | 2014-2018 base years |

### 4.1.2 Scup Allocation Alternatives

Table 3 lists the alternatives under consideration for the commercial/recreational scup allocation percentages. The current allocations for scup are catch-based and are represented by the no action/status quo alternative (alternative 1b-1). As described above, both catch- and landings-based alternatives are considered. The percentages under these alternatives are not directly comparable due to differences in how dead discards are addressed under catch- and landings-based allocations. Appendix C provides examples of potential commercial quotas and RHLs under each alternative to allow for more direct comparisons between the catch and landings-based alternatives. Appendix A provides more details on the differences between catch and landings-based allocations and the potential implications of each approach. The rationale behind each allocation alternative is described in more detail in Appendix B.

The alternatives in this section are mutually exclusive, meaning the Council and Board can only choose one of the alternatives from $1 \mathrm{~b}-1$ through $1 \mathrm{~b}-7$.

Table 3: Scup commercial/recreational allocation alternatives. The current allocations are highlighted in green.

| Scup Catch-Based Allocation Percentages |  |
| :--- | :--- |
| Alternative | Basis (see Appendix B for details) |
| $\mathbf{1 b - 1 : 7 8 \%}$ commercial, 22\% recreational | No action/status quo |
| $\mathbf{1 b - 2 : ~ 6 5 \% ~ c o m m e r c i a l , ~ 3 5 \% ~ r e c r e a t i o n a l ~}$ | Same base years, new data (1988-1992) |
| $\mathbf{1 b - 3 : ~ 6 1 \% ~ c o m m e r c i a l , ~ 3 9 \% ~ r e c r e a t i o n a l ~}$ | Multiple approaches: 2009-2018 base years and <br> average of other approaches approved by <br> Council/Board in June 2020 |
| 1b-4: 59\% commercial, 41\% recreational | Approximate status quo harvest per sector <br> compared to 2018/2019 |
| Scup Landings-Based Allocation Percentages |  |
| Alternative | Basis (see Appendix B for details) |
| $\mathbf{1 b - 5 : ~ 5 7 \% ~ c o m m e r c i a l , ~ 4 3 \% ~ r e c r e a t i o n a l ~}$ | Multiple approaches: Same base years, new data; <br> 2014-2018 base years; 2009-2018 base years |
| $\mathbf{1 b - 6 : 5 6 \%}$ commercial, 44\% recreational | 2004-2018 base years |
| $\mathbf{1 b - 7 : ~ 5 0 \% ~ c o m m e r c i a l , ~ 5 0 \% ~ r e c r e a t i o n a l ~}$ | Approximate status quo harvest per sector <br> compared to 2018/2019 |

### 4.1.3 Black Sea Bass Allocation Alternatives

Table 4 lists the alternatives under consideration for the commercial/recreational black sea bass allocation percentages. The current allocations for black sea bass are landings-based and are represented by the no action/status quo alternative (alternative 1c-4). As described above, both catch- and landings-based alternatives are considered. The percentages under these alternatives are not directly comparable due to differences in how dead discards are addressed under catch-based allocations and landings-based allocations. Appendix C provides examples of potential commercial quotas and RHLs under each alternative to allow for more direct comparisons between the catch and landings-based alternatives. Appendix A provides more details on the differences between catch- and landings-based allocations and the potential implications of each approach. The rationale behind each allocation alternative is described in more detail in Appendix B.

The alternatives in this section are mutually exclusive, meaning the Council and Board can only choose one of the alternatives from $1 \mathrm{c}-1$ through $1 \mathrm{c}-7$.

Table 4: Black sea bass commercial/recreational allocation alternatives. The current allocations are highlighted in green.

## Black Sea Bass Catch-Based Percentages

| Alternative | Basis (see Appendix B for details) |
| :---: | :---: |
| 1c-1: $\mathbf{3 2 \%}$ commercial, $\mathbf{6 8 \%}$ recreational | Approximate status quo harvest per sector compared to 2018/2019 |
| 1c-2: $\mathbf{2 8 \%}$ commercial, $\mathbf{7 2 \%}$ recreational | 2004-2018 base years |
| 1c-3: $\mathbf{2 4 \%}$ commercial, $\mathbf{7 6 \%}$ recreational | 2009-2018 base years |
| Black Sea Bass Landings-Based Percentages |  |
| Alternative | Basis (see Appendix B for details) |
| 1c-4: 49\% commercial, $\mathbf{5 1 \%}$ recreational | No action/status quo |
| 1c-5: 45\% commercial, 55\% recreational | Same base years, new data (1983-1992) |
| 1c-6: $\mathbf{2 9 \%}$ commercial, $\mathbf{7 1 \%}$ recreational | Multiple approaches: Approximate status quo harvest per sector compared to 2018/2019and average of other approaches approved by Council/Board in June 2020 |
| 1c-7: $\mathbf{2 2 \%}$ commercial, $\mathbf{7 8 \%}$ recreational | 2009-2018 and 2014-2018 base years |

### 4.2 Impacts of Commercial/Recreational Allocation Alternatives

As described in more detail below, the impacts of these alternatives are expected to be mostly socioeconomic in nature. Potential biological impacts on the summer flounder, scup, and black sea bass stocks are also briefly discussed below. Impacts applicable to all three species are discussed in section 4.2.1, while species-specific impacts are outlined in sections 4.2.2 through 4.2.4. A more complete impacts analysis, including consideration of the potential impacts on other components
of the environment such as non-target species, habitats, marine mammals, and species listed as threatened or endangered under the Endangered Species Act, will be included in the Environmental Assessment prepared after the Council and Board select their final preferred alternatives.

Sections 4.2.2 through 4.2 .4 contain example projected RHLs and commercial quotas for each allocation alternative to demonstrate potential impacts to the recreational and commercial fisheries. The 2020 ABC for each species was used to project landings limits that reflect recent stock size and to allow for comparison to recent fishery performance. The methodology used to develop the example landings limits differs from the methodology that was used to develop the actual landings limits that were implemented for management use in 2020. For the status quo alternatives for each species, the actual 2020 RHLs and commercial quotas are presented. For the other alternatives, use of a different method was necessary to allow for several assumptions that must be made about how dead discards by sector would be projected, including the effect that changing allocations could have on each sector's fishing effort and dead discards. A more detailed description of the methodology used to generate example RHLs and quotas can be found in Appendix C.

Actual future commercial quotas and RHLs under any of these alternatives cannot be determined at this time and may differ from the examples presented here based on future ABCs, which are unknown beyond 2021 as they are driven by stock assessment projections. In addition, annual assumptions about expected dead discards (total and sector-specific) may vary in future years, which will also impact future RHLs and commercial quotas. The example commercial quotas and RHLs in this document are provided only for the purposes of assessing the potential impacts of each alternative and for comparing between the alternatives.

### 4.2.1 General Impacts of Allocation Changes on All Three Species

## Socioeconomic Impacts

Aside from the no action/status quo alternatives, all alternatives for all three species would result in an increased recreational allocation. This would result in higher RHLs than the current allocations. RHLs are tied to recreational measures such as possession limits, fish size restrictions, and open/closed seasons. These measures are adjusted as needed to allow harvest to meet but not exceed the RHL. Depending on the magnitude of the increase, an increased recreational allocation may not allow for liberalized recreational management measures compared to recent years in all cases. In some cases, recreational restrictions would still be needed if the allocation increase is not enough to account for recent increases in the MRIP harvest estimates.

Liberalizing or restricting recreational measures can impact angler access to all three species. Increased access could take the form of more fish to take home (under higher possession limits or lower minimum fish sizes) and more opportunities to target these species (under longer open seasons), while decreased access could mean the ability to retain fewer fish and reduced opportunities to target these species. This can affect angler satisfaction, revenues for for-hire businesses (e.g., by impacting demand for for-hire trips), and revenues for support businesses such as bait and tackle shops.

At the community level, these impacts may be greatest for communities with or near recreational fishing sites, communities where for-hire businesses are based, and communities with tourism that is impacted by recreational fishing.

Aside from the no action/status quo alternatives, all the alternatives for all three species would result in reduced allocation to the commercial sector, which is expected to result in lower commercial quotas than the current allocations. The commercial sector may experience a loss in revenue due to corresponding lower quotas and a reduction in potential landings of summer flounder and black sea bass. For scup, this will depend on the degree of the decrease in the quota as the commercial scup quota has not been fully harvested since 2007 due to other factors such as market demand. For all three species, the loss in revenue associated with the reduction in quota is not expected to be linear, as the relationship between price and volume landed in the fishery is not linear and is variable by species. Other factors such as variation in costs can also affect revenue. Some negative impacts associated with quota reductions might be partially offset by the potential for increased prices paid by dealers if decreased quotas result in decreased supply. However, the degree to which this happens depends on the relationship between demand and price.

Impacts from a reduction in commercial quota will not be felt equally across all commercial industry participants. The coastwide commercial quota is divided into state quotas for summer flounder and black sea bass, and seasonal quota periods for scup. Of the three scup quota periods, only the summer period quota is further allocated among states. Some states fully utilize their quota year after year, while other states tend to underutilize their quota. Commercial fishermen ${ }^{3}$ from states that fully utilize quota are more likely to experience loss in revenue, restrictive trip limits, and seasonal closures to account for the reduced commercial quota. States that have historically underutilized their quota may still be impacted in the medium- to long-term as reduced access to quota may inhibit the ability for market expansion in the future. These states could also be impacted in the near-term depending on the magnitude of allocation reduction. If the commercial allocation is substantially reduced, quotas in some states may drop below what is currently being utilized.

Lower commercial quotas resulting from lower allocations could result in lower trip limits and shorter seasons. Lower trip limits can incentivize high-grading whereby smaller fish are discarded to allow for more landings of larger fish that can fetch a higher price per pound. Shorter seasons could result in market instability through greater fluctuations in price, as well as "race to fish" conditions if seasons are shortened substantially. A reduction in commercial quotas would not just impact commercial fishermen, it would also reduce the availability of these species to consumers. Changes in commercial allocation of these three species also affects the economic health of communities with notable participation in these commercial fisheries through employment in the harvesting, processing, distribution, and retail aspects of the commercial fisheries. The scale of the impacts will depend on the scale of the change and the degree of local economic dependence on these commercial fisheries.

There are also impacts for both sectors associated with switching from a landings-based allocation (currently implemented for summer flounder and black sea bass) to a catch-based allocation (currently implemented for scup). It could be perceived as a benefit that the catch and landings limits for each sector can be calculated independently from each other under a catch-based allocation. As described in more detail in Appendix A, under a catch-based allocation, changes in landings and dead discards in one sector do not influence the other sector's allocation as the entire ABC is always split among the sectors based on the allocation defined in the FMP, regardless of recent trends in landings and discards by sector. In theory, this can allow each sector to see the

[^19]benefits of a reduction in their own dead discards to a greater extent than under a landings-based allocation. Under a catch-based allocation, a reduction in dead discards in one sector can result in an increase in that sector's landings limit in a future year. This was part of the rationale for implementing the current catch-based allocation for scup as it was expected to incentivize a reduction in commercial dead discards, which were of concern during development of Amendment 8 when the commercial/recreational scup allocations were first developed. Under a landings-based allocation, changes in landings and dead discards in one sector can influence the catch and landings limits in both sectors; therefore, the benefits of a reduction in dead discards (or the negative impacts of an increase in dead discards) in one sector can also be felt by the other sector.

Under all alternatives considered in this action, the commercial and recreational sectors will continue to be held separately accountable for overages of their catch and landings limits. There will be no changes to the accountability measures for either sector. ${ }^{4}$

## Biological Impacts to Summer Flounder, Scup, and Black Sea Bass Stocks

As described above, all but the no action/status quo alternatives would reduce the commercial allocations, which would in turn result in lower commercial quotas than the no action/status quo alternatives.

As described in more detail in the species-specific sections below, some alternatives which would increase the recreational allocation may still require additional restrictions in the recreational fisheries compared to the measures used in recent years due to the mismatch between the revised MRIP data and the RHLs which could result from the allocations under many alternatives.

Depending on the scale of the change, a decrease in the commercial quota or additional restrictions on the recreational fishery could lead to increased regulatory discards of these species compared to recent levels. Actual changes in discards will depend on many factors. For example, fishing behavior in both sectors is influenced by many factors in addition to the regulations (e.g., weather, availability of other target species, market demand). Discards are also influenced by availability of each species, both overall abundance and by size class. For example, high availability of fish smaller than the minimum size limit can lead to high regulatory discards. Lower availability of legal-sized fish can lead to decreased discards. For these reasons, it is challenging to predict future discards based on changes in allocations.

In all cases, total dead catch (i.e., landings and dead discards) will continue to be constrained by the overall ABC , which is set based on the best scientific information available and is intended to prevent overfishing. In this way, none of the alternatives are expected to change patterns in landings, discards, or fishing effort in such a way that they negatively impact stock status for any of the three species.

Landings and discards in the commercial and recreational sectors are monitored and estimated in different ways. A preliminary analysis taking into account the different levels of precision of the estimates of landings and dead discards in each sector for all three species suggests that the risk of exceeding the ABC does not vary greatly under a wide range of different proportions of total dead catch from each sector. This suggests that changes in the commercial/recreational allocation,

[^20]especially changes within the range currently under consideration, may not have notably different impacts on the risk of exceeding the ABC .

### 4.2.2 Summer Flounder Allocation Impacts

Many stakeholders across regions and fishing modes view the summer flounder recreational minimum size and bag limit to be overly restrictive. Shore-based anglers in particular are concerned about the high minimum size. Depending on the alternative selected and annual considerations, an increase in allocation to the recreational sector may allow for a liberalization of these measures and could increase access to anglers. A reduction in the minimum size limit may be particularly impactful to those who fish from shore and typically encounter smaller fish. Allowing more fish to be retained increases angler satisfaction and provides greater access to fish to bring home to eat.

Table 5 compares example quotas and RHLs under each allocation alternative using the 2020 ABC (see Appendix C for methodology) to the actual quota and RHL implemented in 2020. All alternatives represent an increase in allocation to the recreational sector relative to the no action/status quo alternative (1a-4), and therefore an increase in the RHL. Likewise, each alternative other than the status quo alternative represents a decrease in allocation and resulting commercial quota for the commercial sector. Relative to the actual 2020 limits, example limits would range from no change (under the status quo alternative 1a-4) to a $34 \%$ decrease in the commercial quota and $43 \%$ increase in the RHL (under alternative 1a-7). Again, these limits are examples. Actual future quotas and RHLs are likely to differ from these examples based on future ABCs, discard assumptions, and other considerations.

Figure 1 compares the example quotas and RHLs (using the 2020 ABC, Table 5) to commercial and recreational landings for summer flounder from 2004 through 2019. Since 2004, landings in each sector have varied with annually varying quotas and RHLs and other factors. In most years since 2004, commercial landings have been above the example commercial quotas, particularly under alternatives $1 \mathrm{a}-1,1 \mathrm{a}-2,1 \mathrm{a}-3,1 \mathrm{a}-6$, and $1 \mathrm{a}-7$. This indicates that if the overall ABC remains similar to 2020, reduced commercial landings may be required relative to most recent years. However, most example quotas are above commercial landings for 2016-2018, indicating that relative to these more recent years, commercial landings may not need to be cut, depending on future ABCs .

For the recreational fishery, harvest in most years since 2004 has been above the example RHLs using the 2020 ABC. However, the example RHLs under most alternatives are higher than recreational harvest during 2017-2019, meaning that recreational measures may be able to be liberalized relative to these years if ABCs remain similar to 2020 levels, depending on actual RHLs and current and future harvest trends.

As previously stated, the summer flounder commercial quota is further allocated among the states based on allocation percentages defined in the FMP. Starting January 1, 2021, as the result of Amendment 21 to the FMP, ${ }^{5}$ the commercial allocations of the summer flounder quota among the states will vary based on the overall coastwide commercial quota amount. When the quota is below 9.55 million pounds, it will be allocated among states based on the state allocations that have been in place since Amendment 2 (1993). Any surplus quota above 9.55 million pounds will be allocated

[^21]differently. As shown in Table 5, some of the example quotas (using the 2020 ABC as an example for future quotas under recent biomass levels) would be above that threshold while some would fall below. Therefore, some of these alternatives could have implications for how the summer flounder quota is allocated among states.

Along with summer flounder commercial landings potentially varying under the various allocation alternatives, ex-vessel prices may also change (Figure 2). Using the equation in Figure 2, prices can be estimated under different landed quantities. For example, assuming full utilization of the example commercial quota in alternative 1a-7 ( 7.65 million pounds under a 25.03 mil pound ABC ), the average ex-vessel price is predicted to be $\$ 2.75$ per pound and would yield $\$ 21.0$ million in total ex-vessel revenue (both in 2019 dollars). If the same process is followed for the alternative 1a-4 example quota ( 11.10 million pounds), the average ex-vessel price would fall to $\$ 1.82$ per pound and revenues would decrease to $\$ 20.2$ million, despite the higher quota. These are rough estimates, and price is influenced by many other factors aside from landings, such as changes in consumer preferences or product substitution. This simplified example does offer some limited support that full utilization of the quota under the highest commercial quota alternative may not maximize fishery-wide revenues.

The Council funded a study consisting of an economic model to evaluate the current 60/40 summer flounder landings allocation. The model, developed by Dr. Kurt Schnier (University of California, Merced) and Dr. Rob Hicks (College of William \& Mary), aimed to determine which allocations would maximize marginal economic benefits (the marginal value to each sector of an additional pound of summer flounder allocation at a given allocation) to the commercial and recreational sectors. The original model was peer reviewed in November 2016 with a final report completed in 2017. ${ }^{6}$ In 2019 and 2020, the model was updated with the revised MRIP estimates released in 2018, as well as more recent commercial fishery data. The results of the updated model suggest that the existing 60/40 commercial/recreational allocation is not suboptimal from an economic efficiency perspective. However, it also suggested that modest allocation changes in either direction would not likely lower the economic benefits received from both sectors of the fishery combined. ${ }^{7}$ Using the new recreational data, the value of the fishery to the recreational sector increased relative to the results of the prior report. The point estimate of the recreational sector's marginal willingness to pay is higher and would potentially support higher recreational allocations; however, the confidence intervals for the recreational and commercial sectors' willingness to pay estimates have substantial overlap due to high uncertainty in these estimates, particularly for the recreational sector. This means that due to data limitations, more concrete guidance about optimal allocations could not be generated due to the inability to more precisely estimate the recreational sector's value.

[^22]Table 5: Example commercial quotas and RHLs for each allocation alternative under the 2020 ABC ( 25.03 million pounds) and the assumptions outlined in Appendix C, with comparison to the 2020 implemented limits. Actual future limits will vary based on future ABCs and discard assumptions.

| Alternative | 1a-1 | 1a-2 | 1a-3 | 1a-4 ${ }^{\text {a }}$ | 1a-5 | 1a-6 | 1a-7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Catch-Based |  |  | Landings-Based |  |  |  |
| Com. allocation | 44\% | 43\% | 40\% | 60\% | 55\% | 45\% | 41\% |
| Rec. allocation | 56\% | 57\% | 60\% | 40\% | 45\% | 55\% | 59\% |
| Example commercial quota | 8.79 | 8.57 | 7.92 | $11.53{ }^{\text {b }}$ | 10.20 | 8.38 | 7.65 |
| \% Difference from 2020 commercial quota | -24\% | -26\% | -31\% | 0\% | -12\% | -27\% | -34\% |
| Example RHL | 10.24 | 10.47 | 11.15 | $7.69{ }^{\text {b }}$ | 8.34 | 10.25 | 11.02 |
| \% Difference from 2020 RHL | 33\% | 36\% | 45\% | 0\% | 8\% | 33\% | 43\% |

${ }^{\text {a }}$ Alternative 1a-4 is the no action/status quo alternative for summer flounder (i.e., the current commercial/recreational allocations).
${ }^{\mathrm{b}}$ The actual implemented commercial quota and RHL for 2020 are shown under Alternative 1a-4 (no action/status quo).


It is important to note that all alternatives under consideration are assuming that the ABC is similar to the 2020 ABC for summer flounder.
Figure 1: Recent (2004-2019) commercial and recreational summer flounder landings with comparison to example commercial quotas and RHLs developed using the 2020 ABC (see Appendix C for methodology).


Figure 2: Commercial summer flounder landings and average ex-vessel prices, 2005-2019, in 2019 dollars. Source: NEFSC Social Sciences Branch, personal communication.

### 4.2.3 Scup Allocation Impacts

Table 6 compares example quotas and RHLs under each allocation alternative using the 2020 ABC (see Appendix C for methodology) to the actual quota and RHL implemented in 2020. Relative to the actual 2020 limits, example limits would range from no change (under the status quo/no action alternative $1 \mathrm{~b}-1$ ) to a $33 \%$ decrease in the commercial quota and $127 \%$ increase in the RHL (under alternative $1 \mathrm{~b}-7$ ). Actual future quotas and RHLs are likely to differ from these examples based on future ABCs, discard assumptions, and other considerations. Figure 3 compares the example quotas and RHLs (using the 2020 ABC, Table 5) to commercial and recreational landings for scup from 2004 through 2019.

Under the no action/status quo alternative for scup (alternative 1b-1), restrictions to the bag limit, minimum size, and/or season would need to be implemented to prevent exceeding the RHL. This is because the revised MRIP harvest estimates for recent years are notably higher than the RHLs that result from the current allocation (assuming recent ABC levels; Figure 3). Alternatives 1b-2 through 1b-7 would increase the recreational allocation. Alternative1b-7 results in the highest example RHL, and is the only alternative that projects an example RHL that is higher than 20042019 recreational harvest (Figure 3). Therefore, alternative 1b-7 would provide the most benefit to the recreational sector in the form of higher angler satisfaction, greater economic opportunity, more revenue to the for-hire sector compared to the other allocation alternatives. Recreational harvest in recent years is variable as shown in Figure 3, however alternatives 1b-3 through 1b-6 have the potential to allow for harvest at similar levels to recent years.

Alternatives 1b-2 through 1b-7 include lower commercial allocations than the no action/status quo alternative (1b-1). The commercial sector has not fully utilized its quota since 2007 so a decrease in allocation would not necessarily lead to a decrease in commercial landings or revenues compared to recent levels. Commercial landings from 2004 through 2010 and 2018 through 2019
fall below the example quotas shown in Figure 3 for all alternatives. However, alternatives 1b-2 through 1b-7 may limit the potential for market expansion and future increases in landings and exvessel revenue compared to the no action/status quo alternative ( $1 \mathrm{~b}-1$ ).

In 2018, the scup stock was at $198 \%$ of the biomass target level and trending down to the target. The compounding effects of reductions in allocation to the commercial sector combined with a reduction in the overall ABC could result in lower commercial quotas in the future. The reduction in commercial quota under alternatives 1b-2 through 1b-7 may not constrain harvest on a coastwide basis but may negatively impact commercial industry members in states that fully utilize their state quota during the summer scup quota period. Impacts may be felt more equally across states in the winter 1 and 2 period scup fishery with the coastwide trip limit.

Ex-vessel prices may change if changes in the allocation result in changes in commercial landings (Figure 4). Using the equation in Figure 4, prices can be estimated under different landed quantities. For example, assuming full utilization of the example commercial quota in alternative $1 \mathrm{~b}-7$ ( 14.81 million pounds under a 35.77 million pound ABC ), the average ex-vessel price is predicted to be $\$ 0.54$ per pound and would yield $\$ 7.9$ million in total ex-vessel revenue. Full utilization of the quota under some of the higher quota alternatives, such as $1 \mathrm{~b}-1$, would decrease revenues following these methods. Average scup landings over the last three years are 14.20 million pounds, meaning full utilization of the quota would appear unlikely under a number of the allocation alternatives and the current ABC . Based on the price responses to changes in quantity, achieving full utilization of the quota may not be economically desirable for the commercial scup fishery as a whole.

Table 6: Example commercial quotas and RHLs for each allocation alternative under the 2020 ABC ( 35.77 million pounds) and the assumptions outlined in Appendix C, with comparison to the 2020 implemented limits. Actual future limits will vary based on future ABCs and discard assumptions.

| Alternative | $\mathbf{1 b - 1}^{\text {a }}$ | 1b-2 |  | 1b-3 | 1b-4 | 1b-5 | 1b-6 | 1b-7 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Catch-Based |  |  | Landings-Based |  |  |  |  |
| Com. allocation | $78 \%$ | $65 \%$ | $61 \%$ | $59 \%$ | $57 \%$ | $56 \%$ | $50 \%$ |  |
| Rec. allocation | $22 \%$ | $35 \%$ | $39 \%$ | $41 \%$ | $43 \%$ | $44 \%$ | $50 \%$ |  |
| Example commercial <br> quota | $\mathbf{2 2 . 2 3}^{\text {b }}$ | $\mathbf{1 6 . 9 0}$ | $\mathbf{1 5 . 9 2}$ | $\mathbf{1 5 . 4 4}$ | $\mathbf{1 6 . 8 5}$ | $\mathbf{1 6 . 5 6}$ | $\mathbf{1 4 . 8 1}$ |  |
| \% Difference from 2020 <br> commercial quota | $\mathbf{0 \%}$ | $\mathbf{- 2 4 \%}$ | $\mathbf{- 2 8 \%}$ | $\mathbf{- 3 1 \%}$ | $\mathbf{- 2 4 \%}$ | $-\mathbf{- 2 6 \%}$ | $\mathbf{- 3 3 \%}$ |  |
| Example RHL | $\mathbf{6 . 5 1}{ }^{\text {b }}$ | $\mathbf{1 1 . 0 4}$ | $\mathbf{1 2 . 3 7}$ | $\mathbf{1 3 . 0 4}$ | $\mathbf{1 2 . 7 1}$ | $\mathbf{1 3 . 0 1}$ | $\mathbf{1 4 . 8 1}$ |  |
| \% Difference from 2020 <br> RHL | $\mathbf{0 \%}$ | $\mathbf{7 0 \%}$ | $\mathbf{9 0 \%}$ | $\mathbf{1 0 0 \%}$ | $\mathbf{9 5 \%}$ | $\mathbf{1 0 0 \%}$ | $\mathbf{1 2 7 \%}$ |  |

${ }^{\text {a }}$ Alternative 1b-1 is the no action/status quo alternative for scup (i.e., the current commercial/recreational allocations).
${ }^{\mathrm{b}}$ The actual implemented commercial quota and RHL for 2020 are shown under Alternative 1b-1 (no action/status quo).


It is important to note that all alternatives under consideration are assuming that the $A B C$ is similar to the $2020 A B C$ for scup.
Figure 3: Recent (2004-2019) commercial and recreational scup landings with comparison to example commercial quotas and RHLs developed using the 2020 ABC (see Appendix C for methodology).


Figure 4. Commercial scup landings and average ex-vessel prices, 2005-2019, in 2019 dollars. Source: NEFSC Social Sciences Branch, personal communication.

### 4.2.4 Black Sea Bass Allocation Impacts

All black sea bass alternatives, with the exception of the no action/status quo alternative (1c-4) would increase the recreational allocation and decrease the commercial allocation. Table 7 compares example quotas and RHLs under each allocation alternative using the 2020 ABC (see Appendix C for methodology) to the actual quota and RHL implemented in 2020. Relative to the actual 2020 limits, example limits would range from no change (under the status quo/no action alternative $1 \mathrm{c}-4$ ) to a $53 \%$ decrease in the commercial quota and $60 \%$ increase in the RHL (under alternative 1c-7). Again, these limits are examples. Actual future quotas and RHLs are likely to differ from these examples based on future ABCs, discard assumptions, and other considerations.

Figure 5 compares the example black sea bass quotas and RHLs (using the 2020 ABC, Table 7) to commercial and recreational landings from 2004 through 2019. Throughout this time period, commercial and recreational landings varied with changes in the landings limits, changes in black sea bass availability, and other factors. It is important to note that all example quotas and RHLs assume that the ABC is similar to the 2020 ABC , which was higher than any previous ABC for black sea bass. In all years shown in Figure 5, the commercial and recreational fisheries operated under landings limits that were set based on ABCs lower than the 2020 ABC.

As shown in Figure 5, commercial landings were below the example quotas under alternatives 1c4 and 1c-5 during 2004-2019, largely because the fishery was constrained by much lower quotas during those years. The other alternatives result in example quotas that are lower than commercial landings in 2 (alternatives $1 \mathrm{c}-1$ and $1 \mathrm{c}-6$ ), 4 (alternative1c-2), or 6 (alternatives $1 \mathrm{c}-3$ and $1 \mathrm{c}-7$ ) of the 16 years during 2004-2019. The highest commercial landings during this time period occurred during 2017-2019. Therefore, if future ABCs are similar to the 2020 ABC, commercial landings may need to be restricted compared to recent years (i.e., 2017-2019) under all but alternatives 1c4 and $1 \mathrm{c}-5$. The greatest restrictions would be necessary under alternatives $1 \mathrm{c}-3$ and $1 \mathrm{c}-7$ (Figure
5). Reductions in commercial landings could lead to reduced revenues and negative socioeconomic impacts for commercial fishery participants and support businesses.

Ex-vessel prices for commercial landings may also change in response to the different potential quota levels under each alternative (Figure 6). Using the equation in Figure 3, prices can be estimated under different landed quantities. For example, assuming full utilization of the example commercial quota in alternative $1 \mathrm{c}-7$ ( 2.61 million pounds under a 15.07 million pound ABC ) the average ex-vessel price is estimated to be $\$ 3.25$ per pound and would yield $\$ 8.5$ million in exvessel revenue. If the same process is followed for the alternative $1 \mathrm{c}-4$ example quota ( 5.43 million pounds), the average ex-vessel price would fall to $\$ 2.48$ per pound. Despite this reduced average price, revenues would continue to increase to $\$ 13.5$ million. These are rough estimates, and price is influenced by many other factors aside from landings, such as changes in consumer preferences or product substitution. These results, however, do suggest that black sea bass commercial revenues would increase under higher quotas with full utilization.

As shown in Figure 5, the example RHLs under all alternatives are lower than recreational harvest in at least 3 of the 16 years from 2004-2019. Alternative $1 \mathrm{c}-4$ results in the lowest example RHL, which is lower than harvest during 9 of the 16 years from 2004-2019, followed by alternative 1 c 5 , which results in an example RHL which is lower than harvest in 8 of the 16 years. However, when considering only 2018-2019, only alternatives $1 \mathrm{c}-4$ and 1c-5 result in example RHLs that are lower than harvest in those years. Therefore, if future ABCs are similar to the 2020 ABC , and depending on future considerations about expected harvest, recreational harvest may not need to be notably restricted compared to recent years (specifically, 2018-2019), under all but alternatives except $1 \mathrm{c}-4$ and $1 \mathrm{c}-5$. Alternatives $1 \mathrm{c}-4$ and $1 \mathrm{c}-5$ could require notable restrictions for the recreational fishery, compared to recent years. Figure 5 suggests that it is not likely that any of the alternatives would allow for increased harvest or notable liberalizations in recreational management measures compared to recent years. Depending on the alternative and annual considerations, all but alternatives $1 \mathrm{c}-4$ and $1 \mathrm{c}-5$ could allow for roughly status quo recreational management measures, or they could require slight to moderate restrictions. As previously stated, more restrictive management measures would be expected to have negative socioeconomic impacts for the recreational sector due to reduced angler satisfaction, reduced demand for for-hire trips, and reduced revenues for for-hire businesses and other recreational fishery support businesses.

Based on the information shown in Figure 5, none of the alternatives would be expected to prevent a need for restrictions in both the recreational and commercial sectors, based on the comparison of example quotas and RHLs against recent landings shown in Figure 5. As previously stated, none of the alternatives are expected to allow for increased recreational harvest compared to recent levels if the ABC remains similar to 2020. The alternatives which, depending on annual considerations, may allow for close to status quo recreational harvest (alternatives $1 \mathrm{c}-1$ through $1 \mathrm{c}-4$, and $1 \mathrm{c}-6$ and $1 \mathrm{c}-7$ ) would require varying levels of reduction in commercial landings, depending on the alternative, (Figure 5).

Table 7: Example commercial quotas and RHLs under each allocation alternative using the 2020 ABC ( 15.07 million pounds) and the assumptions outlined in Appendix C, with comparison to the 2020 limits. Actual future limits will vary based on future ABCs and discard assumptions.

| Alternative | 1c-1 | 1c-2 | 1c-3 | $1 \mathrm{c}-4^{\text {a }}$ | 1c-5 | 1c-6 | 1c-7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Catch-Based |  |  | Landings-Based |  |  |  |
| Com. allocation | 32\% | 28\% | 24\% | 49\% | 45\% | 29\% | 22\% |
| Rec. allocation | 68\% | 72\% | 76\% | 51\% | 55\% | 71\% | 78\% |
| Example commercial quota | 3.31 | 2.99 | 2.66 | 5.58 ${ }^{\text {b }}$ | 5.04 | 3.38 | 2.61 |
| \% Difference from 2020 commercial quota | -41\% | -46\% | -52\% | 0\% | -10\% | -39\% | -53\% |
| Example RHL | 8.16 | 8.65 | 9.14 | 5.81 ${ }^{\text {b }}$ | 6.15 | 8.28 | 9.27 |
| \% Difference from 2020 RHL | 40\% | 49\% | 57\% | 0\% | 6\% | 43\% | 60\% |

${ }^{\text {a }}$ Alternative $1 \mathrm{c}-4$ is the no action/status quo alternative for black sea bass (i.e., the current commercial/recreational allocations).
${ }^{\mathrm{b}}$ The actual implemented commercial quota and RHL for 2020 are shown under Alternative 1c-4 (no action/status quo).


Figure 5: Recent (2004-2019) commercial and recreational black sea bass landings with comparison to example commercial quotas and RHLs developed using the 2020 ABC (see Appendix C for methodology).


Figure 6. Commercial black sea bass landings and average ex-vessel prices, 2005-2019, in 2019 dollars. Source: NEFSC Social Sciences Branch, personal communication.

### 4.3 Allocation Change Phase-In

### 4.3.1 Allocation Change Phase-In Alternatives

The alternatives listed in Table 8 consider if any changes to the allocation percentages considered through alternative sets $1 \mathrm{a}, 1 \mathrm{~b}$, and 1 c should occur in a single year (alternative 1d-1, no phase in) or if the change should be spread over 2, 3, or 5 years (alternatives 1d-2 through 1d-4). The Council and Board agreed that 5 years is a reasonable maximum phase-in time frame as longer transition periods may not adequately address the issue an allocation change is attempting to address. The choice of whether to use a phase-in approach, and the length of the phase-in, may depend on the magnitude of allocation change proposed. A phase-in period may not be desired if the overall allocation change is relatively small. Larger allocation changes may be less disruptive to fishing communities if they are phased in over several years.

These phase-in alternatives could apply to any of the three species. The Council and Board may choose to apply different phase-in alternatives (including no phase-in) to each species if desired.

Table 8: Allocation change phase-in alternatives.

## Phase-In Alternatives

1d-1: No phase-in
1d-2: Allocation change evenly spread over 2 years
1d-3: Allocation change evenly spread over 3 years
1d-4: Allocation change evenly spread over 5 years

### 4.3.2 Impacts of Allocation Change Phase-In Alternatives

The biological, social, and economic impacts of the phase-in alternatives are dependent on two things: 1) the difference between the status quo allocation percentage and the allocation percentage
selected, and 2) the duration of the phase-in period. Based on the range of allocation percentages across the three species (Section 4.1), the commercial and recreational sector allocations could shift by as much as $13.5 \%$ per year, or as little as $0.8 \%$ per year under the above phase-in timeframes of 2-5 years. Sections 4.3.2.1 through 4.3.2.3 describe the associated percent shifts per year for each species, and the impacts of these phase-in approaches.

Both catch- and landings-based allocation alternatives are being considered for all three species. As previously stated, summer flounder and black sea bass are currently managed under a landingsbased allocation and scup is currently managed under a catch-based allocation. It is straightforward to calculate the annual percent shift in allocation under each phase-in alternative if the allocation remains landings-based for summer flounder and black sea bass or catch-based for scup.

The phase-in transition is more complicated when transitioning from a landings-based to a catchbased allocation or vice versa. Under a landings-based allocation, the division of expected dead discards to each sector is typically calculated using a moving average of recent trends. As a result, under a landings-based allocation, the percentage of the ABC (landings + dead discards) assigned to each sector typically varies from year to year and usually does not match the landings-based allocation percent. To illustrate this, the 2021 percent split of landings, dead discards, and sector ACLs for each species are shown in Table 9. As described below, when transitioning from a landings-based to a catch-based allocation or vice versa, the total and annual phase-in amounts should not be calculated starting from the existing FMP allocation, as the actual split of catch does not match the landings-based allocation for summer flounder and black sea bass, and the actual split of landings does not match the catch-based allocation for scup. The phase-in amounts for each alternative can instead be calculated by using the 2021 measures as a starting point since these are the implemented measures that the transition would be away from. This includes the actual division of catch (for transition to a catch-based allocation) or landings (for transition to a landings-based allocation) in 2021. Additional details for each species are discussed below.

Table 9: The currently implemented recreational/commercial split for total landings, dead discards, and total dead catch for 2021 specifications. The current FMP-specified allocations for each species are highlighted in yellow.

| Currently Landings-Based Allocations |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Comm. \% <br> of TAL <br> (allocation) | Rec. \% of <br> TAL <br> (allocation) | Expected <br> comm. \% <br> of discards <br> in 2021 | Expected <br> rec. \% of <br> discards in <br> $\mathbf{2 0 2 1}$ | Comm. <br> ACL \% of <br> ABC in <br> $\mathbf{2 0 2 1}$ | Rec. ACL <br> \% of ABC <br> in 2021 |
| Summer <br> flounder | 60 | 40 | 34 | 66 | 54 | 46 |
| Black sea <br> bass | 49 | 51 | 68 | 32 | 55 | 45 |
| Currently Catch-Based Allocation |  |  |  |  |  |  |
|  | Comm. \% <br> of TAL in <br> 2021 | Rec. \% of <br> TAL in <br> $\mathbf{2 0 2 1}$ | Expected <br> comm. \% <br> of discards <br> in 2021 | Expected <br> rec. \% of <br> discards in <br> $\mathbf{2 0 2 1}$ | Comm. <br> ACL \% of <br> ABC <br> (allocation) | Rec. ACL <br> \% of ABC <br> (allocation) |
| Scup | $77^{\text {a }}$ | 23 | 81 | 19 | 78 | 22 |

[^23]NEFSC Social Sciences Branch crew survey results (Table 10) suggest that while a limited number of crew from the summer flounder, scup, and black sea bass fisheries were surveyed, the majority of those surveyed agreed that it was hard to keep up with changes in regulations. A phase-in approach to reallocation would still involve regulatory change, though limiting year-to-year change in allocation could possibly make it easier for industry members to adapt to these changes. However, phase-in approaches may also require more frequent changes in management measures such as open seasons and possession limits during the phase-in period. Therefore, consideration should be given to balancing regulatory stability and economic stability.

Table 10. NEFSC Social Sciences Branch Crew Survey results for reactions to the statement "the rules and regulations change so quickly it is hard to keep up." Results presented for crew primarily involved in the summer flounder, scup, and black sea bass fisheries over the 2012-2013 survey, 2018-2019 survey, and the combined results.

| Survey Wave | $\mathbf{2 0 1 2 - 1 3}$ | $\mathbf{2 0 1 8 - 1 9}$ | Total |
| :---: | :---: | :---: | :---: |
| Strongly agree | $3(27 \%)$ | $10(45 \%)$ | $13(39 \%)$ |
| Agree | $4(36 \%)$ | $7(32 \%)$ | $11(33 \%)$ |
| Neutral | $1(9 \%)$ | $2(9 \%)$ | $3(9 \%)$ |
| Disagree | $3(27 \%)$ | $3(14 \%)$ | $6(18 \%)$ |
| Strongly disagree | $0(0 \%)$ | $0(0 \%)$ | $0(0 \%)$ |
| Total | $11(100 \%)$ | $22(100 \%)$ | $33100 \%)$ |

### 4.3.2.1 Summer Flounder Phase-In Impacts

If the summer flounder allocation is modified but a landings-based allocation is maintained (alternatives $1 a-5$ through 1a-7), the annual percent shift amounts are easily calculated by taking the difference between the starting and ending allocations for each sector and evenly dividing that percentage among the 2,3 , or 5 years of phase-in depending on the phase-in alternative (Table 11).

Under a transition from a landings-based to a catch-based allocation (alternatives 1a-1 through 1a3), dead discards would first need to be incorporated into the current baseline to determine the total and annual percent shift. Any allocation changes adopted are meant to take effect starting in 2022; therefore, the specifications for 2021 can serve as this baseline for the current split of catch by sector. Specifically, the percentage of the ABC that each sector will receive in 2021 as a sector ACL is used as the starting point for calculating transition percentages below.

For summer flounder, in 2021, the commercial ACL represents $54 \%$ of the ABC and the recreational ACL represents $46 \%$ of the ABC (Table 9). From these starting percentages, the total amount of catch-based allocation shift can be calculated, and evenly divided among the 2 , 3 , or 5 years depending on the phase-in alternative (Table 11).

Table 11: Percent shift in summer flounder allocation per year for 2,3 , and 5 year phase-in options for all summer flounder allocation change alternatives.

| Catch-Based Alternatives | Total amount of allocation percent shift needed ${ }^{\text {a }}$ | 1d-2: 2 year phase-in | 1d-3: 3 year phase-in | 1d-4: 5 year phase -in |
| :---: | :---: | :---: | :---: | :---: |
| 1a-1: 44\% commercial, 56\% recreational | 10\% | $\mathbf{5 \%}$ shift per year | 3.3\% shift per year | 2\% shift per year |
| 1a-2: 43\% commercial, 57\% recreational | 11\% | 5.5\% shift per year | 3.7\% shift per year | $\mathbf{2 . 2 \%}$ shift per year |
| 1a-3: 40\% commercial, $\mathbf{6 0 \%}$ recreational | 14\% | 7\% shift per year | 4.7\% shift per year | 2.8\% shift per year |
| Landings-Based Alternatives | Total amount of allocation percent shift needed ${ }^{\text {b }}$ | 1d-2: 2 year phase-in | 1d-3: 3 year phase-in | 1d-4: 5 year phase -in |
| 1a-4 (status quo): $\mathbf{6 0 \%}$ commercial, 40\% recreational | 0\% | N/A | N/A | N/A |
| 1a-5: 55\% commercial, 45\% recreational | 5\% | $\mathbf{2 . 5 \%}$ shift per year | 1.7\% shift per year | 1\% shift per year |
| 1a-6: 45\% commercial, 55\% recreational | 15\% | 7.5\% shift per year | 5\% shift per year | 3\% shift per year |
| 1a-7: 41\% commercial, 59\% recreational | 19\% | $\mathbf{9 . 5 \%}$ shift per year | 6.3\% shift per year | $\mathbf{3 . 8 \%}$ shift per year |

${ }^{\text {a }}$ For catch-based alternatives, the starting point for this calculation is the current (2021) split of the sector-specific ACLs (which incorporates dead discards) instead of the landings limit allocation. Here, this shift is calculated by starting from the 2021 specifications which includes a commercial ACL that is $54 \%$ of the ABC , and a recreational ACL that is $46 \%$ of the ABC (Table 9).
${ }^{\mathrm{b}}$ For landings-based alternatives, the starting point for this calculation is the specified landings-based allocation ( $60 \%$ commercial $/ 40 \%$ recreational). This does not account for dead discards, which would continue to be split using different methods with the resulting percentages varying depending on the year.

Across all summer flounder alternatives, the total allocation shift (if allocations are modified) from the commercial to the recreational fishery would range from 5-19\% from the current allocations, and the annual phase-in would range from $1.7 \%$ per year to $9.5 \%$ per year depending on the allocation change and the phase-in alternative selected (Table 11).

As described in Section 4.2, a decline in commercial allocation is expected to lead to a decline in landings and revenue, especially in states where the commercial allocation is fully utilized. The potential decline in landings may result in higher ex-vessel prices due to a price/volume relationship, potentially tempering declines in ex-vessel revenue. The recreational sector for summer flounder is expected to experience positive social and economic impacts under any of the allocation changes proposed in alternatives 1a-1 through 1a-7 (with the exception of the no action/status quo alternative 1a-4). However, the positive impacts may be partially offset by an inability to meaningfully liberalize measures under a higher allocation given the transition to revised MRIP estimates. The phase-in option selected would affect how quickly these negative and positive impacts are felt by each sector, which could influence how well sector participants are able to adapt to any changes.

For the commercial industry, a more abrupt transition to a revised allocation (alternative 1d-1 and to a lesser extent 1d-2) may result in a sudden loss of income and jobs due to a more sudden drop in revenue in the commercial fishery. Commercial sector participants who are highly dependent on summer flounder may have more difficulty remaining in business while evaluating options for maintaining revenue streams, such as shifting effort to other target species. Alternatives $1 \mathrm{~d}-3$ and 1d-4 (a 3- or 5-year phase-in, respectively), would provide a longer transition time for the commercial industry to adapt to loss of fishing opportunity for summer flounder. This could allow for a smoother transition to modified business models such as diversifying target species.

For the recreational fishery, a more abrupt transition to a revised allocation (alternative 1d-1 and to a lesser extent 1d-2) is expected to have social and economic benefits as this allows for a faster transition to an allocation that supports the recent recreational harvest under the revised MRIP data (Figure 1). This has implications for recreational management measures, which could be liberalized more quickly if a faster transition to a revised allocation occurs. For summer flounder recent recreational harvest under the revised MRIP estimates are at similar levels as recent RHLs, so it is possible that recreational measures could be liberalized in the coming years if allocation to the recreational sector is increased (e.g., Figure 1). However, this is also dependent on future projections of stock biomass, trends in recreational catch and effort, and other factors. If recreational measures can be liberalized, this could result in a decrease in recreational discards. Alternatives 1d-3 and 1d-4 (a 3- or 5-year phase-in, respectively), would provide a longer transition to an increased recreational allocation for summer flounder. This may mean that recreational measures and fishing opportunities could be maintained at current levels for longer, or liberalized more slowly, though it is important to note that possible liberalizations depend on many different factors and are not guaranteed.

### 4.3.2.2 Scup Phase-In Impacts

The current allocation for scup is catch-based. If the allocation is modified but a catch-based allocation is maintained (alternatives $1 b-2$ through $1 b-4$ ), the annual percent shift amounts are easily calculated by taking the difference between the starting and ending allocations for each sector and evenly dividing that percentage among the 2,3 , or 5 years of phase-in depending on the phase-in alternative (Table 12).

Under a transition from a catch-based to a landings-based allocation (alternatives $1 \mathrm{~b}-5$ through 1 b 7), dead discards would first need to be separated from the current baseline to determine the total and annual percent allocation shift. Because any allocation changes adopted are meant to take effect starting in 2022, the specifications for 2021 can serve as this baseline for the current split of landings by sector. Specifically, the percentage of the total allowable landings (TAL) that each sector will receive in 2021 as sector landings limits (commercial quota and RHL) is used as the starting point for calculating transition percentages below (Table 9).

For scup, in 2021, the commercial quota represents $77 \%$ of the TAL and the RHL represents $23 \%$ of the TAL (Table 9). From these starting percentages, the total amount of landings-based allocation shift can be calculated, and evenly divided among the 2,3 , or 5 years depending on the phase-in alternative (Table 12).

Table 12: Percent shift in scup allocation per year for 2, 3, and 5 year phase-in options for all scup allocation change alternatives.

| Catch-Based Alternatives | Total amount of allocation percent shift needed ${ }^{\text {a }}$ | 1d-2: 2 year phase-in | 1d-3: 3 year phase-in | 1d-4: 5 year phase -in |
| :---: | :---: | :---: | :---: | :---: |
| 1-b1 (status quo): 78\% commercial, 22\% recreational | 0\% | N/A | N/A | N/A |
| 1b-2: 65\% commercial, 35\% recreational | 13\% | 6.5\% shift per year | 4.3\% shift per year | 2.6\% shift per year |
| 1b-3: 61\% commercial, 39\% recreational | 17\% | 8.5\% shift per year | 5.7\% shift per year | 3.4\% shift per year |
| 1b-4: 59\% commercial, 41\% recreational | 19\% | 9.5\% shift per year | 6.3\% shift per year | 3.8\% shift per year |
| Landings-Based Alternatives | Total amount of allocation percent shift needed ${ }^{\text {b }}$ | 1d-2: 2 year phase-in | 1d-3: 3 year phase-in | 1d-4: 5 year phase -in |
| 1b-5: 57\% commercial, 43\% recreational | 20\% | 10\% shift per year | 6.7\% shift per year | 3.4\% shift per year |
| 1b-6: 56\% commercial, 44\% recreational | 21\% | $\mathbf{1 0 . 5 \%}$ shift per year | 7\% shift per year | 4 \% shift per year |
| 1b-7: 50\% commercial, 50\% recreational | 27\% | $\mathbf{1 3 . 5 \%}$ shift per year | 9\% shift per year | $\mathbf{5 . 4 \%}$ shift per year |

${ }^{\text {a }}$ For catch-based alternatives, the starting point for this calculation is the FMP-specified allocation percentage ( $78 \%$ commercial/ $22 \%$ recreational).
${ }^{\mathrm{b}}$ For landings-based alternatives, the starting point for this calculation is the current (2021) split of the sector-specific landings limits (commercial quota and RHL). Here, this shift is calculated by starting from the 2021 specifications which includes a commercial quota that is $77 \%$ of the total allowable landings, and an RHL that is $23 \%$ of the total allowable landings (Table 9). This does not account for dead discards, which going forward would be split using different methods with the resulting percentages varying depending on the year.

Across all the alternatives for scup, the total allocation shift needed (if allocations are modified) from the commercial to the recreational fishery would range from 13-27\% from current allocations, and the annual phase-in would range from $2.6 \%$ per year to $13.5 \%$ per year depending on the allocation change and the phase-in alternative selected (Table 12).

As described in Section 4.2, depending on the scale of the change, a decline in commercial allocation could lead to loss of revenues from scup or it may not impact revenues as commercial landings have been below the full allowed amount for several years due to market factors. Any potential loss in revenue for fishermen may be partially offset by increased prices paid by dealers if a price/volume relationship impacts prices under lower quotas (Figure 4). The recreational sector is expected to experience positive social and economic impacts under any of the allocation changes proposed in alternatives $1 \mathrm{~b}-1$ through $1 \mathrm{~b}-7$ (with the exception of the no action/status quo alternative $1 \mathrm{~b}-1$ ). However, the positive impacts may be partially offset by an inability to meaningfully liberalize measures under a higher allocation given the transition to revised MRIP estimates (Figure 3). The phase-in option selected would affect how quickly these negative and positive impacts are felt by each sector, which could influence how well fishery participants are able to adapt to any changes.

For the commercial industry, a more abrupt transition to a revised allocation (alternative 1d-1 and to a lesser extent 1d-2), especially when coupled with a greater total allocation change, may result in a more sudden loss of income and jobs due to a more sudden drop in revenue. Commercial sector participants who are highly dependent on scup may have more difficulty remaining in business while evaluating options for maintaining revenue streams, such as shifting effort to other target species. Alternatives 1d-3 and 1d-4 (a 3- or 5-year phase-in, respectively), would provide a longer transition time for the commercial industry to adapt to loss of fishing opportunity for scup. This could allow for a smoother transition to modified business models such as diversifying target species. As previously stated, these impacts would vary based on the magnitude of the allocation change as the commercial scup fishery has not harvested their full quota under the current allocations for many years due to market demand.

For the recreational fishery, a more abrupt transition to a revised allocation (alternative 1d-1 and to a lesser extent 1d-2) is expected to have social and economic benefits as this allows for a faster transition to an allocation that matches the recent recreational harvest under the revised MRIP data (Figure 3). This has implications for recreational management measures, which for scup, are currently resulting in harvest levels higher than the current RHL. Under the current allocation, this should require more restrictive measures to be implemented for the recreational fishery. However, under an increased allocation to the recreational fishery, it is possible that recreational scup measures could remain the same (avoiding potentially severe restrictions that would otherwise be taken if the allocations are not changed; Figure 3). Recreational measures are also dependent on factors such as future projections of stock biomass, trends in recreational catch and effort, and other trends. It is possible that if scup biomass is projected to increase in the coming years, recreational measures could be liberalized under an increased allocation. Alternatives 1d-3 and 1d4 (a 3- or 5-year phase-in, respectively), would provide a longer transition to an increased recreational allocation for scup. This could mean that recreational measures and fishing opportunities would need to be restricted during the transition years, possibly severely given recent MRIP estimates (Figure 3), though it is important to note that adjustments to recreational measures depend on many different factors.

### 4.3.2.3 Black Sea Bass Phase-In Impacts

If the black sea bass allocation is modified but a landings-based allocation is maintained (alternatives $1 \mathrm{c}-5$ through $1 \mathrm{c}-7$ ), the annual percent shift amounts are easily calculated by taking the difference between the starting and ending allocations for each sector and evenly dividing that percentage among the 2,3 , or 5 years of phase-in depending on the phase-in alternative (Table 13).

Under a transition from a landings-based to a catch-based allocation (alternatives 1c-1 through 1c3), dead discards would first need to be incorporated into the current baseline to determine the total and annual percent shift. Specifications for 2021 can serve as this baseline for the current split of catch by sector. Specifically, the percentage of the ABC that each sector will receive in 2021 as a sector ACL is used as the starting point for calculating transition percentages below (Table 9).

For black sea bass, in 2021, the commercial ACL represents $55 \%$ of the ABC and the recreational ACL represents $45 \%$ of the ABC (Table 9). From these starting percentages, the total amount of allocation shift can be calculated, and evenly divided among the 2,3 , or 5 years depending on the phase-in alternative (Table 13).

Table 13: Percent shift in black sea bass allocation per year for 2, 3, and 5 year phase-in options for all black sea bass allocation change alternatives.

| Catch-Based Alternatives | Total amount of allocation percent shift needed ${ }^{\text {a }}$ | 1d-2: 2 year phase-in | 1d-3: 3 year phase-in | 1d-4: 5 year phase -in |
| :---: | :---: | :---: | :---: | :---: |
| 1c-1: 32\% commercial, $\mathbf{6 8 \%}$ recreational | 23\% | $\mathbf{1 1 . 5 \%}$ shift per year | 7.7\% shift per year | 4.6\% shift per year |
| 1c-2: 28\% commercial, 72\% recreational | 27\% | $\mathbf{1 3 . 5 \%}$ shift per year | $\mathbf{9 . 0 \%}$ shift per year | 5.4\% shift per year |
| 1c-3: 24\% commercial, 76\% recreational | $\mathbf{3 1 \%}$ | $\mathbf{1 5 . 5 \%}$ shift per year | 10.3\% shift per year | 6.2\% shift per year |
| Landings-Based Alternatives | Total amount of allocation percent shift needed ${ }^{\text {b }}$ | 1d-2: 2 year phase-in | 1d-3: 3 year phase-in | 1d-4: 5 year phase -in |
| 1-c4 (status quo): $\mathbf{4 9 \%}$ commercial, $\mathbf{5 1 \%}$ recreational | 0\% | N/A | N/A | N/A |
| 1c-5: 45\% commercial, 55\% recreational | 4\% | $\mathbf{2 \%}$ shift per year | 1.3\% shift per year | 0.8\% shift per year |
| 1c-6: 29\% commercial, 71\% recreational | 20\% | 10\% shift per year | 6.7\% shift per year | 4\% shift per year |
| 1c-7: 22\% commercial, 78\% recreational | 27\% | $\mathbf{1 3 . 5 \%}$ shift per year | 9\% shift per year | 5.4\% shift per year |

${ }^{\text {a }}$ For catch-based alternatives, the starting point for this calculation is the current (2021) split of the sector-specific ACLs (which incorporates dead discards) instead of the landings limit allocation. Here, this shift is calculated by starting from the 2021 specifications which includes a commercial ACL that is $55 \%$ of the ABC , and a recreational ACL that is $45 \%$ of the ABC for black sea bass (Table 9).
${ }^{\mathrm{b}}$ For landings-based alternatives, the starting point for this calculation is the specified landings-based allocation ( $49 \%$ commercial $/ 51 \%$ recreational). This does not account for dead discards, which would continue to be split using different methods with the resulting percentages varying depending on the year.

Across all the alternatives for black sea bass, the total allocation shift needed (if allocations are modified) from the commercial to the recreational fishery would range from $4-31 \%$, compared to the current allocations, and the annual phase-in would range from $0.8 \%$ per year to $15.5 \%$ per year depending on the allocation change and the phase-in alternative selected (Table 13).

As described in Section 4.2, a reduced commercial allocation is expected to lead to loss of revenue, depending on the magnitude of the allocation change, especially in states where the commercial allocation is fully utilized. However, the potential loss in revenue may be partially offset by an increase in prices paid by dealers to fishermen if a price/volume relationship impacts prices under lower landings (Figure 6). The recreational sector is expected to experience positive social and economic impacts under any of the allocation changes proposed in alternatives $1 \mathrm{c}-1$ through $1 \mathrm{c}-7$ (with the exception of the no action/status quo alternative 1c-4). However, the positive impacts may be partially offset by an inability to meaningfully liberalize recreational management measures under a higher allocation given the transition to revised MRIP estimates, depending on the alternative (Figure 5). The phase-in option selected would affect how quickly these negative and positive impacts are felt by each sector, which could influence how well sector participants are able to adapt to any changes. For both sectors, these impacts will vary depending on the magnitude of the total allocation change, as well as the length of the phase-in period.

For the commercial industry, a more abrupt transition to a revised allocation (alternative 1d-1 and to a lesser extent 1d-2) may result in a sudden loss of income and jobs due to a more sudden drop in revenue in the commercial fishery. Commercial sector participants who are highly dependent on black sea bass may have more difficulty remaining in business while evaluating options for maintaining revenue streams, such as shifting effort to other target species. Alternatives $1 \mathrm{~d}-3$ and 1d-4 (a 3- or 5-year phase-in, respectively), would provide a longer transition time for the commercial industry to adapt to loss of fishing opportunity for black sea bass. This could allow for a smoother transition to modified business models such as diversifying target species.

For the recreational fishery, a more abrupt transition to a revised allocation (alternative 1d-1 and to a lesser extent 1d-2) could have social and economic benefits as this would allow for a faster transition to an allocation that matches the recent recreational harvest under the revised MRIP data. This has implications for recreational management measures, which for black sea bass, are currently resulting in harvest levels much higher than the current RHL. If the current allocation is maintained, more restrictive measures may need to be implemented to constrain harvest to the RHL. Under an increased allocation to the recreational fishery, it is possible that recreational black sea bass measures could remain the same (avoiding severe restrictions that could otherwise be required; Figure 5). Recreational measures are also dependent on factors such as future projections of stock biomass, trends in recreational catch and effort, and other trends. It is possible that if black sea bass biomass is projected to increase in the coming years and this allows for a higher ABC, recreational measures could be liberalized under an increased allocation. Alternatively, further restrictions could be needed if the ABC decreases. Alternatives 1d-3 and 1d-4 (a 3- or 5-year phase-in, respectively), would provide a longer transition to an increased recreational allocation for black sea bass. This could mean that recreational measures and fishing opportunities will need to be restricted during the transition years, possibly severely given recent MRIP estimates (Figure 5), though it is important to note that adjustments to recreational measures depend on many different factors.

### 5.0 QUOTA TRANSFER ALTERNATIVES AND IMPACTS

### 5.1 Quota Transfer Provision Alternatives

The following alternatives describe options for allowing annual transfer of quota between the commercial and recreational sectors as part of the specifications setting process (i.e., the annual process of setting or reviewing catch and landings limits for the upcoming fishing year). This process is similar to that currently used for bluefish, although the options below would allow transfers in either direction between sectors. Section 5.1.1 discusses quota transfer process alternatives while Section 5.1.2 addresses options for a cap on the total amount of a transfer.

### 5.1.1 Quota Transfer Process Alternatives

Table 14 lists the alternatives under consideration for quota transfer provisions.
Table 14: Alternatives for annual transfer of quota between the commercial and recreational sectors.

## Annual Quota Transfer Alternatives

2a: No action/status quo (do not modify the FMP to allow transfers of annual quota between the commercial and recreational sectors.)
2b: Allow for optional bi-directional transfers through the annual specifications process with pre-defined guidelines and process. The transfer would consist of a portion of the total ABC in the form of a landings limit (i.e., commercial quota and RHL) transfer. Transfers would not occur if the stock is overfished or overfishing is occurring.

Under alternative 2 a , transfers would not be allowed between the commercial and recreational sectors, consistent with past practice and the current FMP requirements for these species.

Under alternative 2 b , each year during the setting or review of annual catch limits, the Board and Council could recommend that a portion of the total ABC be transferred between the recreational and commercial sectors as a landings limit transfer, affecting the final commercial quota and RHL. They could recommend a transfer from the commercial fishery to the recreational fishery or from the recreational fishery to the commercial fishery. If a transfer cap is adopted via one of the subalternatives under alternative 2c, the transfer amount could not exceed this cap.

Table 15 describes how the process of transfers would work within the Council and Board's current specifications process under alternative 2 b .

Table 15: Proposed quota transfer process during a typical specifications cycle under alternative 2 b .

| July: Assess the need for a transfer | Staff and the Monitoring Committee (MC) would assess the potential need for a transfer and develop recommendations to the Council and Board as part of the specifications process. The MC would consider the expected commercial quota and RHL (pending Council and Board review/approval) in the coming year, and each sector's performance relative to landings limits in recent years. The MC will have very limited data for the current year and would not be able to develop precise current year projections of landings for each sector. The MC could also consider factors including but not limited to: <br> - Projected changes in stock size, availability, or year class strength; <br> - Recent or expected changes in management measures; <br> - Recent or expected changes in fishing effort; <br> The MC would consider how these factors might have different impacts on the commercial and recreational sectors. The effects of these considerations can be difficult to quantify and there is currently no methodology that would allow the MC to quantitatively determine the need for a transfer with a high degree of precision. The MC would use their best judgement to recommend whether a transfer would further the Council and Board's policy objectives. |
| :---: | :---: |
| August: Council and Board consider whether to recommend a transfer | The Council and Board would consider MC recommendations on transfers while setting or reviewing annual catch and landings limits. The Council and Board would need to jointly agree on a transfer direction, amount of transfer, and if setting multi-year specifications, whether the transfer would apply for one year or multiple years. |
| October: Council staff submits specifications package to NMFS | Council staff would prepare and submit supporting documents to modify catch limits or implement or revise transfers. During a multi-year specifications review year, if a transfer is newly adopted or revised, a regulatory package may need to be developed even if catch limits do not change. |
| Mid-December: <br> Recreational measures adopted* | The Council and Board would adopt federal waters recreational measures and a general strategy for coastwide recreational management including any reductions or liberalizations needed in state waters. These recommendations would be based on the expected post-transfer RHL which likely would not yet be implemented via final rule. |
| Late December: <br> Final specifications published | NMFS approves and publishes the final rule for the following year's catch and landings limits (if new or modified limits are needed), including any new or revised transfers. During a multi-year specifications review year, if a transfer is newly adopted or revised, rulemaking will likely need to occur even if catch limits do not change. |
| January 1: Fishing year specifications effective, including any transfers | Fishing year specifications including any transfers would be effective January 1. No post-implementation reviews or adjustments to the transfer amount would occur given that the final rule would recently have published and recreational measures would have already been considered based on expected post-transfer RHLs. |

*While this step is not directly part of the quota transfer process, the timing of the recreational measures setting process influences the necessary timeline of transfer-related decisions.

Note that while the transfer would occur at the landings limit level (commercial quota and RHL), for the purposes of maintaining accurate accounting and accountability at the ACL level, both sector's ACLs would be adjusted to reflect the transfer at the landings limit level.

If transfer provisions under alternative 2 b are adopted, some changes to the accountability measures (AMs) may also need to be considered. For example, AMs could specify that if the MC determines that a transfer caused the donating fishery's ACL , or the combined ABC , to be exceeded, the transfer amount could be deducted from the receiving fishery in a subsequent year. The Council and Board could consider a follow-on action to make these changes if desired. These specific changes are not considered through this amendment.

### 5.1.2 Transfer Cap Alternatives

Table 16 lists the alternatives under consideration for a cap on the total transfer amount (if any). These alternatives would only be considered if transfer provisions were adopted under alternative 2 b above, and would specify a maximum percent of the ABC that could be transferred from one sector to another each year in the form of a landings limit transfer.

Table 16: Alternatives for annual transfer of quota between the commercial/recreational sectors.

Annual Quota Transfer Cap Alternatives
2c-1: No transfer cap specified; the Council and Board can recommend any amount of the ABC be transferred between fisheries.
2c-2: Maximum transfer amount set at 5\% of the ABC.

2c-3: Maximum transfer amount at $10 \%$ of the ABC.
2c-4: Maximum transfer amount set at $15 \%$ of the ABC .

### 5.2 Impacts of Quota Transfer Provision Alternatives

The current FMP does not allow for the annual transfer of landings between the commercial and recreational sectors. Transfers are being considered as a way to address situations where landings limits in one sector exceed recent landings but fall below recent landings in the other sector. In short, transfers could provide flexibility when a landings limit is restrictive in one sector and the other sector has a surplus. However, the process for determining when a transfer is needed and how much to transfer could be complex, as described below.

Under alternative 2a (no action), there would be no change to the FMP to allow for transfers. Lacking this flexibility, the result when one sector is underachieving its limits and another sector is in need of additional allowable landings may be that limits remain set so that one sector is more likely to have an overage of catch, and the other sector may underutilize their allowable catch. This may negatively impact the ability to achieve the Council and Boards' policy and FMP objectives on a short-term basis. If these trends persist, it could indicate a need for longer-term solutions such as further changes to the allocations.

The short-term impacts of not allowing transfers would be similar to current conditions, where in the event that there is surplus allocation to one sector and the other needs allocation, negative socioeconomic impacts could be expected for the sector in need of allocation. This sector would not be able to receive additional quota and may need restrictive management measures to constrain catch and may experience reduced revenues and/or reduced angler satisfaction as a result. The sector determined to have a surplus allocation would most likely experience no impacts under the
no action alternative; however, in some cases where conditions such as market factors or participation differ from what is predicted, this sector may experience slight positive impacts due to the opportunity to fish for their full allocation. These impacts may be less positive in practice if this sector is not able to fully utilize this quota.

Impacts associated with the proposed transfer process as well as sector-specific expected impacts of transfers are described in more detail below.

### 5.2.1 Impacts of the Proposed Process

A major disadvantage of the process proposed in Section 5.1.1 requires an annual evaluation of the need for a transfer in the upcoming year using data from the previous year (and potentially older data). Because in-year landings projections are not feasible with this timeline, this would cause at least a two-year disconnect in the timing of the data used to evaluate the need for transfer and the year in which the transfer would apply. This could result in a mismatch between the recommended transfer amount and direction and the reality of the fishery conditions and needs for the upcoming year.

The need for a transfer in any given year may be difficult to determine, due to several factors in addition to the timing of the data availability described above. These fisheries (particularly summer flounder and black sea bass) tend to fully or mostly utilize their allocation and sometimes experience overages. Annual changes in management measures are sometimes needed (especially in the recreational fisheries), and the effects of both past and expected future changes on expected harvest must be considered when determining a transfer amount. It is also difficult to predict changes in market factors that may influence whether the commercial fishery would utilize additional quota or has quota to spare.

Past sector performance for these fisheries may not be very informative when it comes to determining how often transfers will be needed. Because the recreational data currency has recently changed, pre-revision MRIP performance relative to the RHLs is not likely to be useful since the changes were not a simple linear scaling. In addition, any allocation changes implemented through this action may reduce the need for transfers. For these reasons, predicting the need for a transfer may be more straightforward in the future after additional years of evaluating harvest against catch and landings limits set in the new MRIP currency, and after any allocation changes implemented through this action have been in place for a few years. In this way, the ability to use transfers may be a useful "tool in the toolbox" for future years, as opposed to an option that is likely to be used in the more immediate future.

Looking solely at past trends in sector performance, transfer provisions may be most useful for the scup fishery given that the commercial quota has not been fully utilized for several years, but again, it is difficult to determine future transfer needs given the many uncertainties discussed here.

The MC recommendations for a transfer amount and direction would be based on an expected set of landings limits which would not yet have been reviewed or adopted by the Council and Board (Table 15). If these landings limits are modified by either the Council and Board or NMFS (e.g., if NMFS determines that a modification is necessary to account for a past year's overage), the MC's transfer recommendation may no longer be appropriate and it could be difficult for the Council and Board to adopt a modified transfer amount in time for the upcoming fishing year. The intent is that any transfer would be implemented before January 1 of the relevant fishing year, meaning that a mid-year quota change due to a transfer is not expected.

The conclusion about whether a transfer is needed could result in increased political discussion and potentially increased tensions between sectors during the specifications setting or review process.

As described in Section 5.1.1, recreational measures (typically determined in December) would need to be set using the expected post-transfer RHL. While typically there are no changes to the Council and Board's adopted RHL during the implementation process, it is possible that NMFS may change the RHL if circumstances require such modifications, such as if a recreational payback for an ACL overage is required. In practice, this may not represent a problem, since recreational measures are typically set based on the expected RHL. However, the use of transfers may further complicate this process if NMFS modifies or does not adopt the Council and Board recommendation for transfer.

If the Council and Board determine that the ability to use transfers during specifications is not desired, they could consider allowing for temporary transfers via FMP frameworks/addenda instead. This could be specified through alternative set 3 (Section 6.0). Annual transfers though a framework/addendum process would provide some additional flexibility in adapting to changing sector needs but would not allow for as timely of a response as would be possible through the specifications process.

### 5.2.2 Socioeconomic Impacts of Transfers

The impacts of transfers depend on the frequency of transfer, the amount transferred in each year, the direction of transfer between sectors, and to what extent each sector has been or is expected to achieve their limits. The impacts of a transfer are also dependent on the marginal economic value of additional allowable landings for each sector (in terms of commercial and for-hire revenues and revenues for associated commercial and recreational businesses), as well as the positive or negative impacts on angler satisfaction that may arise from modifying or maintaining recreational measures. As described below, many additional factors can influence how the commercial and recreational fisheries may be impacted by a transfer, including market conditions, overall availability of the species, availability of substitute species, and trends in effort driven by external factors.

## Commercial to Recreational Transfers

If the recreational fishery receives a transfer, they would experience positive socioeconomic impacts due to outcomes such as the potential for liberalized measures, the ability to maintain status quo measures when a restriction may otherwise be needed, and/or a reduced risk of an RHL or ACL overage that may impose negative consequences in a future year. These outcomes could result in maintained or increased revenues for recreational businesses as well as improved or maintained levels of angler satisfaction, compared to if no commercial to recreational transfer occurred.

In this scenario, the commercial sector would give up quota that is not expected to be fully utilized. In theory, if the decision to transfer is based on a pattern of underutilization in the commercial sector, the economic impacts to the commercial sector from such a transfer would be neutral. However, the commercial sector could experience a loss in revenue if the potential for underutilization is incorrectly evaluated. This could be due to a disconnect in the data used to evaluate the transfer and conditions in the relevant fishing year, possibly driven by changes in market conditions or fishery participation and effort.

Impacts to the commercial fisheries are not likely to be felt equally across states given different commercial quota management systems and differing quota utilizations by state. While coastwide commercial landings can fall short of the total commercial quota, individual states vary considerably in utilizing or underutilizing their individual quotas. A coastwide projected underutilization could occur even if one or more states would be expected to fully utilize their quota in the upcoming year. This could have negative economic impacts to the commercial industries in states that regularly achieve their quotas.

## Recreational to Commercial Transfers

If the commercial fishery receives a transfer, they would experience positive socioeconomic impacts in the year of the transfer due to increased revenue earning potential associated with higher potential landings. In general, quota increases tend to result in higher revenues, although some of these benefits may be partially offset by decreases in price per pound that can be associated with higher quotas. As described in Section 4.2, average ex-vessel price for each species tends to decrease with increasing landings. This relationship depends on the magnitude of the change in quota as well as other market factors in addition to total landings, so this relationship is difficult to predict. The relationship is also stronger for summer flounder and scup compared to black sea bass, so positive impacts of the commercial sector receiving a transfer are likely to be greater for black sea bass.

In theory, if the decision to transfer is based on a pattern of underutilization by the recreational sector, negative socioeconomic impacts to the recreational sector from such a transfer may not be realized. However, this would limit the potential for liberalizing recreational management measures. For these species, particularly for summer flounder and black sea bass, many stakeholders are of the opinion that recreational measures are currently overly restrictive. Because recreational harvest is more difficult to predict and control than commercial harvest, recreational management measures are frequently adjusted in order to strike an appropriate balance between conservation and angler satisfaction. Therefore, it may be less likely that a recreational to commercial transfer would actually occur.

## Impacts of Transfers in Either Direction

The impacts of transfers should be considered in combination with the short-term and long-term impacts associated with commercial/recreational allocation modifications under alternative set 1 . However, it is difficult to do so quantitatively given the uncertainties about allocation changes as well as the uncertainties in the frequency, amount, and direction of potential transfers. In general, any annual transfers away from a sector can compound the negative impacts experienced due to a reduction in that sector's total allocation, or in the short term could partially offset the positive impacts of an increase in allocation. Annual transfers to a sector can simultaneously create additional positive impacts on top of the positive impacts of reallocation from the perspective of the receiving sector, and also exacerbate negative impacts of a loss in allocation for the donating sector.

The impacts of transfers would also be influenced by annual reductions or increases in the overall ABC based on changes in projected stock biomass and the application of the Council's risk policy. The recipient of a transfer could have some negative socioeconomic impacts from ABC reductions mitigated by receiving a transfer, while the transferring sector may experience exacerbated negative economic impacts from ABC reductions. Conversely, if the ABC were increasing, this
could offset negative impacts to the transferring sector and provide additional benefits to the sector receiving the transfer.

As described above, the impacts of transfers may differ by state or region. For the commercial industry, the negative impacts associated with losing quota or the positive impacts associated with receiving a transfer are influenced by the method of quota allocation for each species. For summer flounder, commercial quota allocation will be revised as of January 1, 2021, and the state allocations are will then be tied to the overall coastwide commercial quota amount. This means that a transfer to or from the commercial quota could influence whether the coastwide commercial quota is above or below the quota threshold for modified allocations, which is currently specified at 9.55 million pounds. For black sea bass, a management action to potentially revise state commercial allocations is currently in development but a preferred alternative has not been identified, so it is difficult to predict the state or regional impacts of proposed quota transfers in combination with potential state allocation changes.

The impacts of transfers can also be impacted by the availability and management of substitute species for a particular sector. High availability and access to recreational or commercial substitute species would help mitigate negative impacts of a transfer away from a given sector, while lower availability and access would compound these negative effects.

Availability of a target species in a given year can also affect the outcome of a transfer, in the sense that availability influences catch rates and search costs associated with commercial and recreational trips. In general, it has been more difficult to calibrate recreational measures to constrain catch below the target level when availability for a species is high. This could drive managers to adopt commercial-to-recreational transfers more frequently under high availability conditions in order to avoid recreational overages.

### 5.2.3 Impacts of Transfer Cap Alternatives

Alternative set 2c (Section 5.1.2) contains options for setting a cap on the total amount of transfer between sectors, as a percentage of the ABC.

Alternative 2c-1 would specify that there is no transfer cap, meaning the Council and Board could recommend any amount of the ABC be transferred between sectors during the annual specifications process. This allows for maximum flexibility in changing the effective allocation in each year; however, this is also associated with a higher likelihood of politically contentious discussions during the annual specifications setting process and greater uncertainty about future effective sector allocations. The Council and Board could effectively consider large temporary reallocations on an annual basis. No transfer cap could also mean a very wide range of potential transfer amounts to consider and analyze. This could lead to less predictability and more frequent fluctuations in sector-specific landings limits from year to year, which could be amplified by changes in overall catch limits resulting from fluctuating stock projections. This could partially negate some of the positive impacts experienced by the sector receiving transfers, given that it could mean their adjustments in the following year may be more severe than if a transfer did not occur the prior year.

Alternatives 2c-2, 2c-3, and 2c-4 provide options for transfer caps set at 5\%, 10\%, and $15 \%$ of the ABC , respectively. This would provide less flexibility in adapting to circumstances where there may be a surplus of allocation in one sector but a deficit in the other. However, a transfer cap also limits consideration of larger allocation transfers through the specifications process and would
limit the politically contentious nature of this discussion and provide greater certainty in the effective sector allocations. Transfer caps would limit the allocation changes that could occur from year to year. Transfer caps would somewhat streamline the process of transfer consideration given that it would limit the range of what could be considered. A lower transfer cap (alternative $2 \mathrm{c}-2$ ) would accomplish this more so than a larger cap (alternative 2c-4).

Under all alternatives, increased fluctuation in allocation from year to year could increase instability and unpredictability in landings limits, which could partially negate the positive impacts from a transfer even if a cap is in place, although transfer caps under alternatives $2 \mathrm{c}-2$ through 2 c 4 would lower the likelihood or severity of this, particularly if the cap is lower.

Under all transfer alternatives, if larger and/or more frequent transfers are adopted, this may indicate that the allocation is not properly specified in the FMP and consideration should be given to modifications to the allocation percentages.

Table 17 shows 5\%, 10\%, and 15\% transfer caps in millions of pounds under the 2017-2021 high and low ABCs for each species. This is meant to provide an example of the amounts that could have been transferred between sectors under recent high and low ABCs. This does not represent a theoretical minimum or maximum amount of quota transfer in pounds, given that the transfer cap alternatives are specified as a percent of the ABC and will vary as ABCs change.

Between 2017-2021, alternative 2c-2 (5\% cap) would have resulted in a cap between 0.45 and 1.96 million pounds depending on the species and year. Alternative 2c-3 ( $10 \%$ cap) would have resulted in a cap between 0.89 and 3.91 million pounds depending on the species and year. Alternative 2c4 ( $15 \%$ cap) would have resulted in a cap between 1.34 and 5.87 million pounds depending on the species and year. Over this time period, scup would have had the highest average transfer cap given the highest average ABC , followed by summer flounder and then black sea bass.

Table 17: Example transfer caps under alternatives $2 \mathrm{c}-2$ through $2 \mathrm{c}-4$ for the 2017-2021 high and low ABCs for each species, in millions of pounds. Note that these are only examples using recent ABCs and do not represent a theoretical maximum or minimum transfer amount in pounds.

|  |  | Summer <br> Flounder | Scup | Black Sea <br> Bass |
| :--- | :--- | :---: | :---: | :---: |
| ABC for comparison | 2017-2021 Low ABC | 11.30 | 28.40 | 8.94 |
|  | 2017-2021 High ABC | 27.11 | 39.14 | 17.45 |
| 2c-2: 5\% of ABC | 2017-2021 Low Transfer Cap | 0.57 | 1.42 | 0.45 |
|  | 2017-2021 High Transfer Cap | 1.36 | 1.96 | 0.87 |
| $\mathbf{2 c - 3 : ~ 1 0 \% ~ o f ~ A B C ~}$ | 2017-2021 Low Transfer Cap | 1.13 | 2.84 | 0.89 |
|  | 2017-2021 High Transfer Cap | 2.71 | 3.91 | 1.75 |
| $\mathbf{2 c - 4 : ~ 1 5 \% ~ o f ~ A B C ~}$ | 2017-2021 Low Transfer Cap | 1.70 | 4.26 | 1.34 |
|  | 2017-2021 High Transfer Cap | 4.07 | 5.87 | 2.62 |

### 6.0 FRAMEWORK/ADDENDUM PROVISION ALTERNATIVES AND IMPACTS

### 6.1 Framework/Addendum Provision Alternatives

The alternatives in Table 18 consider whether the Council and Board should have the ability to make future changes related to certain issues considered through this amendment through a
framework action (under the Council's FMP) and/or an addendum (for the Commission's FMP). Frameworks/addenda are modifications to the FMPs that are typically (though not always) more efficient than a full amendment. While amendments may take several years to complete and may be more complex, frameworks/addenda can usually be completed in 5-8 months. Both types of management actions include multiple opportunities for public input; however, scoping and public hearings are required for amendments, but are optional for frameworks/addenda. Frameworks/ addenda can only modify existing measures and/or those that have been previously considered in an FMP amendment.

The framework/addenda provisions would apply to commercial/recreational allocation changes (alternative set 1) and quota transfer provisions between the commercial and recreational sectors (alternative set 2). The ability to revise commercial/ recreational allocations through a framework or addendum could make future allocation changes simpler and less time consuming. The Council adopted an allocation review policy in $2019,{ }^{8}$ where each relevant allocation will be reviewed at least every 10 years; however, the Council may choose to conduct reviews more frequently based on substantial public interest or other factors (including changes in ecological, social, and economic conditions). Framework/addendum provisions are also considered for transfers of quota between sectors, as this may allow for a more efficient management response to changes in the needs of the commercial and recreational fisheries for these species than if these changes needed to be considered through an FMP amendment, as is currently the case.

Allowing such changes through a framework/addendum does not require or guarantee that this mechanism can be used for future changes. The Council and Board can always choose to initiate an amendment rather than a framework/addendum if more thorough evaluation or additional public comment opportunities are desired. In addition, if the specific changes under consideration are especially controversial or represent a significant departure from previously considered measures, an amendment may be required, even if the type of change is identified in the FMP as a change that can be made through a framework/addendum.

Table 18: Framework/addendum provision alternatives.

## Framework/addendum provision alternatives

3a: No action/status quo (no changes to framework/addendum provisions; changes to commercial/recreational allocations must be made through an amendment)
3b: Allow changes to commercial/recreational allocations, annual quota transfers, and other measures included in this amendment to be made through framework actions/addenda

### 6.2 Impacts of Framework/Addendum Provision Alternatives

The impacts of alternatives 3 a and 3 b are briefly described below. These alternatives are primarily procedural in nature. The purpose of modifying the list of "frameworkable items" in the FMP is to demonstrate that the concepts included on the list have previously been considered in an amendment (i.e., they are not novel).

Alternative 3a would make no changes to the current list of framework provisions in the Council's FMP and no changes to the current list of measures subject to change under adaptive management in the Commission's FMP. Any future proposed modifications to the commercial/recreational allocations or proposed allocation transfer systems would likely require a full FMP amendment.

[^24]The timeline and complexity of such an amendment would depend on the nature of the specific options considered.

Alternative 3b would allow changes to commercial/recreational allocations and sector allocation transfer provisions to be implemented through a framework action (for the Council) and/or an FMP addendum (for the Commission). This alternative is intended to simplify and improve the efficiency of future actions to the extent possible and would not have any direct impacts on the environment or human communities as it is primarily procedural in nature. As previously stated, under alternative 3b, the Council and Board could still decide it is more appropriate to use an amendment if significant changes are proposed. The impacts of any specific changes to the commercial/ recreational allocations or transfers between the sectors considered through a future framework/ addendum would be analyzed through a separate process with associated public comment opportunities and a full description of expected impacts.

### 7.0 APPENDICES

APPENDIX A: Catch vs. Landings-Based Allocations
This appendix provides additional clarification on the differences between catch and landingsbased allocations. These allocations are used to derive a set of required annual catch and landings limits for both sectors, including commercial and recreational annual catch limits and annual catch targets (ACLs and ACTs ${ }^{9}$, which both account for landings and dead discards), and landings limits (commercial quota and RHL, both of which only account for landings). The same types of catch and landings limits are all required under both catch and landings-based allocations. These limits are calculated through the annual specifications process. The commercial/recreational allocations are not used in other parts of the management process; they are only used in the specifications process to derive the sector-specific catch and landings limits.

In both cases, all catch and landings limits are derived from the overall ABC, which applies to all dead catch and is set based on the best scientific information available. The main difference between catch and landings-based allocations is the step in the process at which the commercial/recreational allocation is applied and how dead discards are factored into the calculations.

A catch-based allocation allocates the total ABC (which accounts for both landings and dead discards) between the two sectors as commercial and recreational ACLs, based on the allocation percentages defined in the FMP (catch-based step 1 in the figures below). Dead discards are then estimated for each sector and subtracted from the sector ACLs to derive the annual sector landings limits (commercial quota and RHL).

A landings-based allocation applies the allocation percentage defined in the FMP to only the portion of the ABC that is expected to be landed (landings-based steps 1 and 2 in the figures below). This requires first calculating the amount of expected dead discards from both sectors combined and subtracting that from the ABC (landings-based step 1), so that the allocation percentage can be applied to the total allowable landings (landings-based step 2). Dead discards are still projected for each sector and incorporated into the ACLs under a landings-based

[^25]allocation, but the process is more complex due to the need to separate out total landings first to apply the allocation. This process evolved because management of summer flounder and black sea bass was previously based on landings limits only and did not consider dead discards. When dead discards were first incorporated into management, the allocation percentages continued to be applied to landings only and it was determined that other methods were needed to split expected dead discards by sector.

As described in more detail below, in both cases, sector-specific dead discards are generally estimated based on recent trends in the fisheries. Therefore, under a landings-based allocation, recent trends in dead discards in one sector have more of an impact on the catch and landings limits in the other sector. Under a catch-based allocation, the calculations of sector-specific catch and landings limits are more separate and recent trends in landings and dead discards in one sector have a lesser impact on the limits in the other sector. This can have important implications due to sector-specific differences in factors such as how landings and discards are estimated, the factors influencing discards (e.g., regulations, market demand, catch and release practices), and discard mortality rates.

Under both allocation approaches, the commercial/recreational allocation percentages are fixed (until modified through an FMP action) and do not vary based on recent trends in the fisheries. They would be defined based on one of the alternatives listed in Section 4.0 of this document.

More details, including a description of the subsequent steps to arrive at the commercial quota and RHL are included below. Examples of the implications of each approach are included at the end of this section.

## Projected Discards Under Both Allocation Approaches

For scup and summer flounder, the total amount of the ABC expected to come from dead discards can be projected using the stock assessment model. These projections account for variations in the size of different year classes (i.e., the fish spawned in a given year) and catch at age information from the commercial and recreational sectors. The current stock assessment model for black sea bass does not allow for these projections, so alternative methods such as recent year average proportions need to be used.

Regardless of the allocation approach, the methodology for calculating sector-specific dead discards (as opposed to total dead discards) is not defined in the FMP and can vary based on annual considerations. The Monitoring Committee provides advice on this decision.

Under both approaches, only dead discards are factored into the allocation percentages and the catch and landings limits calculations. Discarded fish which are presumed to survive do not factor into these calculations.

## Catch-based Allocation Process

The allocation percentages under consideration are listed in Section 4.1. Those allocation percentages are then used in the specifications process as described below.

Catch-based Step 1. The ABC is divided into commercial and recreational ACLs based on the allocation percentages defined in the FMP.


Catch-based Step 2. Commercial and recreational ACTs are set less than or equal to their respective ACLs to account for management uncertainty. The appropriate deduction for management uncertainty (if any) is not pre-defined and is based on annual considerations, including the advice of the Monitoring Committee.


Catch-based Step 3. Expected dead discards are calculated for each sector to derive the commercial quota and RHL from the sector-specific ACTs.


Catch-based Step 4. Commercial quotas and RHLs are determined by subtracting the sectorspecific dead discards (see catch-based step 3) from the sector-specific ACTs.


## Landings-Based Allocation Process

Landings-based Step 1. The ABC is first divided into the amount expected to come from landings (total projected landings) and the amount expected to come from dead discards (total projected dead discards). The methodology for this calculation is not defined in the FMP and can vary based on annual considerations. The Monitoring Committee provides advice on this decision.

As previously stated, for scup and summer flounder, these calculations can be informed by stock assessment projections. The current black sea bass stock assessment does not model landings and dead discards separately; therefore, calculations of total projected landings and dead discards for black sea bass cannot be informed by stock assessment projections. Instead, other methods, such as those based on recent year average proportions, must be used.


Landings-based Step 2. The total projected landings are allocated to the commercial and recreational sectors based on the allocation percentages defined in the FMP.


Landings-based Step 3. The total projected dead discards are split into projected commercial dead discards and projected recreational dead discards. The methodology for calculating sector-specific dead discards is not defined in the FMP and can vary based on annual considerations. The Monitoring Committee provides advice on this decision.


Landings-based Step 4. Commercial and recreational ACLs are calculated by adding the landings amount allocated to each sector and the sector-specific projected dead discards (see Steps 2 and 3 above).


Landings-based Step 5. Commercial and recreational ACTs are set less than or equal to their respective ACLs to account for management uncertainty. The appropriate deduction for management uncertainty (if any) is not pre-defined and is based on annual considerations, including the advice of the Monitoring Committee.


Landings-based Step 6. Commercial quotas and RHLs are determined by subtracting sectorspecific discards from the sector-specific ACTs.


## Implications of Catch vs. Landings-Based Allocation Approaches

One of the major differences between catch-based and landings-based allocations is at which step in the process the commercial/recreational allocation is applied to derive catch and landings limits. Under a catch-based allocation, the commercial/recreational allocation is applied in the first step of the process after the ABC is determined. Under a landings-based allocation, decisions about the total amount of expected landings and dead discards must be made before the commercial/ recreational allocation is applied. The commercial/recreational allocation is then applied to the total amount of expected landings (Figure 7).


Figure 7: Comparison of first two steps of calculating commercial and recreational catch and landings limits under catch and landings-based allocations.

The method for determining total expected landings and dead discards under a landings-based approach is not specified in the FMP and can vary based on annual considerations. In practice, this typically involves consideration of stock assessment projections and/or recent trends in landings and dead discards, depending on the species. In this way, considerations of recent trends in the stock and discard trends in either the commercial or recreational fishery impacts both sector's catch and landings limit under a landings-based allocation to a greater extent than under a catch-based allocation.

Under a catch-based allocation, the total ABC is always allocated among the commercial and recreational sectors in the same way (i.e., based on the allocation percentages defined in the FMP) regardless of recent trends in year classes or landings and dead discards in each sector. Put another way, under a catch-based allocation, changes in landings and dead discards in one sector do not influence the other sector's ACL as the entire ABC is always split among the sectors based on the allocation defined in the FMP, regardless of recent trends in landings and discards by sector. In theory, this can allow each sector to see the benefits of a reduction in their own dead discards to a greater extent than under a landings-based allocation. Under a catch-based allocation, a reduction in dead discards in one sector can result in an increase in that sector's landings limit in a future year. This was part of the rationale for implementing the current catch-based allocation for scup as it was expected to incentivize a reduction in commercial dead discards, which were of concern during development of Amendment 8. Under a landings-based allocation, changes in landings and dead discards in one sector can influence the catch and landings limits in both sectors; therefore, the benefits of a reduction in dead discards (or the negative impacts of an increase in dead discards) in one sector can also be felt by the other sector.

Although catch- and landings-based allocations may create different incentives for reducing dead discards in each sector, in reality, this may be a long-term impact. With the exception of the no action alternatives, all the allocation alternatives under consideration through this amendment are based on historical patterns in the fisheries considering the best available recreational and commercial data, either using the original base years or considering data through 2018 or 2019, depending on the alternative (Section 4.1). Therefore, the catch or landings-based allocations under
many of the alternatives may not create an immediate notable incentive for change compared to recent operating conditions. Selection of catch versus landings-based allocations does have an immediate effect on each sector's landings limit. Appendix C presents a methodology for projecting landings limits under the catch- and landings-based allocation alternatives, and Section 4.2 compares recent trends in landings data to the projected landings limits under each allocation alternative.

## APPENDIX B: Supplemental Information on Basis for Allocation Alternatives

This appendix describes the rationale behind each of the commercial/recreational allocation percentage alternatives listed in alternative sets 1a-1c (Table 19). These alternatives were initially developed by the FMAT (Fishery Management Action Team) and approved by the Council and Board for inclusion in this amendment.

Table 19. Alternatives considered through this amendment for commercial/recreational allocation percentages (i.e., alternative sets 1 a - summer flounder, $\mathbf{1 b}$ - scup, and 1 c - black sea bass) grouped according to the approach used to derive the alternatives.

| Approach | Description | Associated Alternatives |
| :---: | :--- | :--- |
| A | No action/status quo | $1 \mathrm{a}-4,1 \mathrm{~b}-1,1 \mathrm{c}-4$ |
| B | Same base years as current allocations <br> (varies by species) but with new data | $1 \mathrm{a}-5,1 \mathrm{~b}-2,1 \mathrm{~b}-5^{*}, 1 \mathrm{c}-5$ |
| C | $2004-2018$ base years | $1 \mathrm{a}-1,1 \mathrm{a}-6^{*}, 1 \mathrm{~b}-6,1 \mathrm{c}-2$ |
| D | $2009-2018$ base years | $1 \mathrm{a}-2^{*}, 1 \mathrm{a}-6^{*}, 1 \mathrm{~b}-3^{*}, 1 \mathrm{~b}-5^{*}, 1 \mathrm{c}-3$, <br> $1 \mathrm{c}-7^{*}$ |
| E | $2014-2018$ base years | $1 \mathrm{a}-3,1 \mathrm{a}-7,1 \mathrm{~b}-5^{*}, 1 \mathrm{c}-7^{*}$ |
| F | Approximate status quo harvest per sector <br> compared to 2017/2018 (summer flounder) <br> or 2018/2019 (scup, black sea bass) | $1 \mathrm{a}-2^{*}, 1 \mathrm{~b}-4,1 \mathrm{~b}-7,1 \mathrm{c}-1,1 \mathrm{c}-6^{*}$ |
| G | Average of other approaches approved by <br> Council/Board in June 2020 | $1 \mathrm{a}-2^{*}, 1 \mathrm{b-3*}, 1 \mathrm{c}-6^{*}$ |

*indicates an alternative supported by multiple approaches.

## Approach A (no action/status quo)

The no action/status quo alternatives consider the consequences of taking no action and retaining the current commercial/recreational allocations. It is required that all Council and Commission amendments consider no action/status quo alternatives.

## Approach B (same base years as current allocations but with new data)

This approach would use updated recreational and commercial data from the same base years as the current allocations to inform new allocation percentages. This is the basis (or, depending on the alternative, part of the basis) for alternatives $1 \mathrm{a}-5,1 \mathrm{~b}-2,1 \mathrm{~b}-5$, and $1 \mathrm{c}-5$.

Both catch and landings-based alternatives using this approach are considered for scup (alternatives $1 \mathrm{~b}-2$ and $1 \mathrm{~b}-5$, respectively). However, for summer flounder and black sea bass, only landings-based alternatives using this approach are considered (alternative 1a-5 for summer flounder and $1 \mathrm{c}-5$ for black sea bass). This is because dead discard estimates in weight are not available for all the current base years for summer flounder (i.e., 1980-1989) and black sea bass (i.e., 1983-1992). Estimates of landings and dead discards in weight in both sectors are available for all the current base years for scup (i.e., 1988-1992).

MRIP does not provide estimates of recreational catch or harvest prior to 1981; therefore, the full 1980-1989 base years for summer flounder cannot be re-calculated for the recreational fishery. Instead, alternative 1a-5 uses 1981-1989 as the base years.

The rationale behind the selection of the current base years for each species is not explicitly defined in the FMP amendments that first implemented the commercial/recreational allocations. The current base years for scup and black sea bass are all years prior to Council and Commission management. For summer flounder, the Commission FMP was adopted in 1982 but contained mostly management guidelines rather than required provisions. The joint Council and Commission FMP was adopted in 1988, toward the end of the 1980-1989 base year period used to develop allocations. The management program for summer flounder was quite limited until Amendment 2 was implemented in 1993. The current base years for each species were likely chosen based on a desire to use as long of a pre-management time period as possible considering the limitations of the relevant data sets.

The approach of revising the commercial/recreational allocations using the same base years and new data allows for consideration of fishery characteristics in years prior to influence by the commercial/recreational allocations, while also using what is currently the best scientific information available to understand the fisheries in those base years.

Approach C (2004-2018 base years), approach D (2009-2018 base years), and approach E (2014-2018 base years)
Under approaches C, D, and E, the commercial/recreational allocation for each species would be based on the proportion of catch or landings from each sector during the most recent 15,10 , or 5 years through 2018, respectively. Final 2019 data from both sectors were not available during initial development of these alternatives; therefore, this amendment only considers catch and landings data through 2018.

The fisheries have changed notably since the commercial/recreational allocations were first implemented in 1993 for summer flounder, 1997 for scup, and 1998 for black sea bass. Most notably, all three species were under rebuilding programs when these allocations were first implemented. According to the most recent stock assessment information, none of the three species are currently overfished or experiencing overfishing. Black sea bass and scup biomass levels are particularly high, at $237 \%$ and $198 \%$ of the target levels in 2018, respectively. Summer flounder biomass was at $78 \%$ of the target level in 2017. ${ }^{10}$

Other characteristics of the fisheries have also changed. Limited access programs for the commercial fisheries were implemented after the initial allocation base years. Possession limits and required minimum fish sizes in both sectors were implemented and have constrained both commercial and recreational harvest. Reporting and monitoring systems and requirements in both sectors have improved. Socioeconomic conditions such as demand for seafood and the demographics and number of both commercial and recreational fishermen have also shifted.

For these reasons, this amendment will consider allocation percentages based on more recent trends in the fisheries compared to the initial base years. The FMAT, Council, and Board agreed that the most recent 15,10 , and 5 years (through 2018) are reasonable time periods to consider.

During these time periods, the fisheries were theoretically constrained by the current allocations. However, the commercial fisheries were generally held closer to their allocations than the recreational fisheries, even when measuring recreational harvest with the pre-calibration MRIP

[^26]data available prior to 2018. Due to the nature of these fisheries, the commercial fisheries have been much more comprehensively monitored in a more timely manner than recreational fisheries during these time periods. All federally permitted commercial fishermen are required to sell their catch to federally permitted dealers, and those dealers must submit landings reports on a weekly basis. If commercial fisheries are projected to land their full quota prior to the end of the year or quota period, they can be shut down. The commercial fisheries have rarely exceeded their quotas by notable amounts over the past 15 years due to close monitoring and reporting.

Recreational harvest is monitored through a combination of voluntary responses to MRIP surveys and VTR data from federally permitted for-hire vessels. Preliminary MRIP data are provided in two month "wave" increments and are not released until approximately two months after the end of the wave. Final recreational data are generally not available until the spring of the following year. Due to the delay in data availability, in-season closures are not used for these recreational fisheries. Recreational fisheries are primarily managed with a combination of possession limits, minimum fish sizes, and open/closed seasons that are projected to constrain harvest to a certain level. However, recreational harvest is influenced by a number of external factors, and the level of harvest associated with a specific combination of possession limits, minimum fish sizes, and open/closed seasons can be difficult to accurately predict. Compared to commercial effort, recreational effort is more challenging to manage, especially considering the recreational sector is an open access fishery. For these reasons, recreational harvest is not as tightly controlled and monitored as commercial landings.

In summary, there are tradeoffs associated with allocations based on recent fishery performance. These allocations could better reflect the current needs of the fisheries and be more responsive to changes in the fisheries and stocks compared to allocations using the initial base years. However, these alternatives would reallocate based on time periods when the recreational fishery was effectively less constrained to their limits than the commercial fishery. The implications may be different for each of the three species, and the issues should be carefully considered. From 20042018, scup tended to have more consistent quota and RHL underages in both sectors than summer flounder and black sea bass, and black sea bass had much more consistent RHL overages than the other two species (in all cases considering the pre-calibration MRIP data available prior to 2018).

Approach F: Approximate status quo harvest per sector compared to 2017/2018 (summer flounder) or 2018/2019 (scup, black sea bass)

## Rationale

The intent behind this approach is to modify the percentage allocations to allow for roughly status quo landings in both sectors under the 2020-2021 ABCs for all three species compared to year(s) prior to the recent catch limit revisions based on the most recent stock assessments. This approach was developed prior to the August 2020 Council and Board meeting when both groups agreed to revise the 2021 ABCs for all three species; therefore, this approach considers the previously implemented 2021 ABCs. Compared to the previously implemented 2021 ABCs, the revisions approved by the Council and Board in August 2020 represent an increase of $8 \%$ for summer flounder, $13 \%$ for scup, and $9 \%$ for black sea bass.

The most recent stock assessments for all three species incorporated the revised MRIP data as well as updated commercial fishery data and fishery-independent data through 2017 for summer flounder and 2018 for scup and black sea bass. Catch and landings limits based on these
assessments were implemented in 2019-2021 for summer flounder and 2020-2021 for scup and black sea bass. Identical catch and landings limits across each year were implemented for summer flounder and black sea bass. For scup, the catch and landings limits varied across 2020-2021.

For summer flounder, these changes resulted in a $49 \%$ increase in the commercial quota and RHL in 2019 compared to 2018. Despite the increase in the RHL, recreational management measures could not be liberalized because the revised MRIP data showed that the recreational fishery was already harvesting close to the increased RHL. The increased commercial quota allowed for an increase in commercial landings.

For black sea bass, these changes resulted in a $59 \%$ increase in the commercial quota and RHL for 2020 compared to 2019. Status quo recreational measures for black sea bass were expected to result in an overage of the increased 2020 RHL; however, the Council, Board, and NMFS agreed to maintain status quo recreational management measures for 2020 to allow more time to consider how to best modify recreational management in light of the new MRIP data. Commercial landings appear to have increased in response to the increase in the quota; however, they are not likely to increase by the full $59 \%$ due to the impacts of the COVID-19 pandemic on market demand.

For scup, these changes resulted in a decrease in the commercial quota (-7\%) and RHL (-12\%) in 2020 compared to 2019. Status quo recreational measures for scup in 2020 were maintained based on similar justifications described above for black sea bass as well as the expectation that the commercial fishery would continue to under-harvest their quota due to market reasons.

Given these circumstances, an attempt was made to calculate revised commercial/recreational allocations for all three species such that harvest in each sector could remain similar to pre-2019 levels for summer flounder and pre-2020 levels for scup and black sea bass (i.e., the years prior to implementation of the most recent stock assessments for all three species), at least on a short-term basis under the current ABCs. This would require lower commercial quotas than those currently implemented for all three species. However, the Council and Board agreed that this approach warrants further consideration given that the commercial quotas for summer flounder and black sea bass increased by $49 \%$ and $59 \%$ respectively as a result of the most recent stock assessments, the commercial scup quota has been under-harvested for over 10 years. The recreational black sea bass and scup fisheries are facing the potential for severe restrictions based on a comparison of the revised MRIP data in recent years to the current RHLs under the existing allocations.

## Defining status quo for each species and sector

Due to unique circumstances in each fishery, the status quo harvest target under this approach was not defined the same way across all species and sectors. Recreational harvest can vary notably from year to year, even under similar management measures. For this reason, recreational status quo for all three species was defined as average recreational harvest in pounds during the two years prior to the most recent catch limit revisions (i.e., 2017-2018 for summer flounder and 2018-2019 for scup and black sea bass). Commercial scup landings are also variable and have been below the quota since 2007 for market reasons. Therefore, status quo for the commercial scup fishery was also defined as a recent two-year average of harvest (2018-2019). For summer flounder and black sea bass, commercial status quo was defined as landings in the last year prior to revisions based on the most recent assessments (i.e., 2018 for summer flounder and 2019 for black sea bass). This reflects the fact that commercial summer flounder and black sea bass landings are generally close to the quotas.

Status quo levels of discards for each species and sector were defined using the same years described above for landings. At the time that this approach was developed, discard estimates in weight for 2019 were not available for either sector; therefore, it was assumed that 2019 discards would be equal to the 2016-2018 average for all species and sectors. Because the Council and Board approved specific allocation alternatives in August 2020, this analysis was not updated with the 2019 discard data that has since become available.

## Methodology for calculating allocations

This approach considers the 2020-2021 ABCs (or, in the case of scup, the average of the 2020 and 2021 ABCs). Because this approach would modify the commercial/recreational allocation percentages, expected harvest and discards in each sector could not be calculated with the same methods used for setting the 2020-2021 specifications. Instead, initial values for expected dead discards by sector were calculated by dividing the 2020-2021 ABCs into expected total (i.e., both sectors combined) landings and total dead discards based on the average proportion of total landings and dead discards during 2017-2019 (see note above about 2019 discards). The expected total amount of dead discards was then divided into commercial and recreational discards based on the average contribution of each sector to total dead discards during 2017-2019. Initial expected harvest was defined as the status quo level of landings in each sector described above. These were the target commercial quotas and RHLs. As described below, these initial values for both harvest and dead discards were modified during subsequent steps of the analysis.

For summer flounder, total expected catch was $18 \%$ below the 2020-2021 ABC. This surplus allowable catch was split evenly among the two sectors. The resulting catch and landings limits, including expected dead discards in each sector, were modified to account for this surplus. For scup, total expected catch was $9 \%$ above the 2020-2021 average ABC. For black sea bass, total expected catch was $2 \%$ above the 2020-2021 ABC. For both scup and black sea bass, the catch reduction necessary to prevent an ABC overage was evenly split between the two sectors. Thus, true status quo was not be maintained for any of the three species under this example. For summer flounder, both sectors were able to slightly liberalize compared to the definition of status quo described above. For scup and black sea bass, both sectors had to be slightly restricted. The resulting catch and landings limits were then used to define the allocation percentages in Table 20. These are the allocation percentages for consideration under this approach.

Table 20. Allocations aiming to allow approximately status quo landings in each sector under the 2020-2021 ABCs compared to recent years prior to catch limit revisions based on the most recent stock assessments.

| Sector | Catch-based |  |  | Landings-based |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Summer <br> flounder | Scup | Black sea <br> bass | Summer <br> flounder | Scup | Black sea <br> bass |
| Commercial | $43 \%$ | $59 \%$ | $32 \%$ | $43 \%$ | $50 \%$ | $29 \%$ |
| Recreational | $57 \%$ | $41 \%$ | $68 \%$ | $57 \%$ | $50 \%$ | $71 \%$ |

Approach G (average of other approaches approved by Council/Board in June 2020)
The FMAT developed several allocation alternatives during May and June 2020. Many of these approaches resulted in very similar allocation percentages. The Council and Board refined the list of alternatives under consideration in June 2020 and agreed that it would be appropriate to consider
an option for each species that averages the other alternatives in recognition of the similarities in outcomes across many alternatives.

Although this approach does not have a quantitative basis that is distinct from the other alternatives, the FMAT agreed that this is appropriate. They also emphasized that there is not necessarily a clear, objective scientific basis for a single best way to approach these allocations, and that the final decision will be a policy and judgement call between a number of defensible options.

## APPENDIX C: Example Quotas and RHLs Under Each Allocation Alternative

This appendix provides examples of potential quotas and RHLs for each of the commercial/recreational allocation percentage alternatives listed in alternative sets 1a-1c (Table 19). Commercial quotas and RHLs are developed or reviewed annually through consultation with the MC and approved upon Council and Board review. As described below, given several assumptions that need to be made about how dead discards are handled, it is not possible to precisely predict what quotas and harvest limits would be under each allocation. This analysis provides the best approximation of possible limits available at this time.

## Dead Discard Projection Methodology

Projecting dead discards is a key component in developing landings limits. Typically, summer flounder and scup total dead discards are based on the stock assessment projections and black sea bass total dead discards are based on a 3-year average of dead discards as a percent of total dead catch. The MC then takes into consideration recent trends and other relevant factors to split the total projected dead discards into dead discards by sector. Projecting expected future commercial quotas and RHLs under revised allocations is complicated because large shifts in allocations are expected to impact recreational and commercial effort, which may result in changes in dead discards for each sector in addition to changes in landings. As such, under modified allocations there would be a transition period where recent trends in dead discards by sector would not be particularly informative for projecting what sector discards would be under new allocations. Expected dead discards by sector under revised allocations are thus better predicted by modeling the relationship between dead catch, landings and discards. This can then be used to project dead discards under example catch and landings limits for each allocation alternative. The modeling process involves assumptions and like any model it is imperfect, but hopefully informative as well. This method is not necessarily the method that the MC will have to use in future specifications development, and they will still have the opportunity to adjust the dead discard projections based on expected changes in stock size, or year class strength, recent changes in management measures, and recent changes in fishing effort.

The following methodology for producing dead discard projections was based on the assumption that there is a relationship between dead discards and catch/landings. Examination of recent trends in black sea bass dead discards and catch/landings reveals a strong positive linear relationship in both the recreational and the commercial fisheries. This is to be expected for catch which is comprised of both landings and discards, but the positive relationship between landings and dead discards is informative for the projection of dead discards. As an example, Figure 8 displays a scatterplot of black sea bass recreational discards and landings for reference. The positive relationship between dead discards was also present in the commercial and recreational scup and summer flounder fisheries.

Figure 8: Scatterplot of black sea bass recreational discards and landings (2004-2018).


## Deriving Landings Limits for Catch-based Allocations

Projecting discards for catch-based allocations relies upon simple linear regression with catch as the dependent variable and discards as the independent variable. As such, discards were regressed on catch for the years 2004-2018 for all three species by sector. While the coefficients for catch were not statistically significant at the $90 \%$ confidence interval for all species and sectors, in all instances the regression analyses revealed a positive linear relationship. The regression output provides an understanding of how discards scale with catch. By combining this understanding with an example ABC and a specific allocation share, it becomes possible to project a RHL and commercial quota for each allocation alternative.

## Deriving Landings Limits for Landings-Based Allocations

Projecting landings limits for landings-based allocations also relies upon simple linear regression, but with landings as the independent variable and discards as the dependent variable. Discards were regressed on landings for the years 2004-2018 for all three species by sector. Although the coefficients for landings were not all statistically significant at the $90 \%$ the regression analyses did reveal a positive linear relationship for all three species. The use of regression analysis provides a model for how discards may potentially scale with landings. Through algebraic manipulation, it is possible to solve for the RHL and commercial quota given a specific allocation share and an example ABC.

## Example RHLs and Quotas Under Allocation Alternatives

The following tables provide the example commercial quotas and RHLs for each species under each allocation alternative using the methodology described above. As previously stated, the regressions were based on landings and discards data from 2004-2018. In addition, the 2020 ABC value was used. For the status quo allocation alternatives, the actual 2020 commercial quota and RHL values are displayed for comparison.

When interpreting these tables, it may be helpful to also reference the basis for each alternative as described in more detail in Appendix B, an explanation of the implications of catch versus landings-based allocations in Appendix A, and view a comparison of recent landings trends to the projected landings limits for each allocation alternative (including status quo which is highlighted) in Section 4.2.

Table 21: Black sea bass example quotas and RHLs in millions of pounds, under an ABC of 15.07 million pounds.

| Black Sea Bass |  |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2020 ABC: 15.07 mil lb. | CATCH-BASED |  | LANDINGS-BASED |  |  |  |  |  |  |
| Alternative | $\mathbf{1 c - 1}$ | $\mathbf{1 c - 2}$ | $\mathbf{1 c - 3}$ | $\mathbf{1 c - 4}^{\text {a }}$ | $\mathbf{1 c - 5}$ | $\mathbf{1 c - 6}$ | $\mathbf{1 c - 7}$ |  |  |
| Com. allocation | $\mathbf{3 2 \%}$ | $\mathbf{2 8 \%}$ | $\mathbf{2 4 \%}$ | $\mathbf{4 9 \%}$ | $\mathbf{4 5 \%}$ | $\mathbf{2 9 \%}$ | $\mathbf{2 2 \%}$ |  |  |
| Rec. allocation | $\mathbf{6 8 \%}$ | $\mathbf{7 2 \%}$ | $\mathbf{7 6 \%}$ | $\mathbf{5 1 \%}$ | $\mathbf{5 5 \%}$ | $\mathbf{7 1 \%}$ | $\mathbf{7 8 \%}$ |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Commercial ACL | 4.82 | 4.22 | 3.62 | 6.98 | 7.32 | 4.69 | 3.47 |  |  |
| Commercial discards | 1.51 | 1.23 | 0.95 | 1.40 | 2.28 | 1.31 | 0.85 |  |  |
| Commercial quota | $\mathbf{3 . 3 1}$ | $\mathbf{2 . 9 9}$ | $\mathbf{2 . 6 6}$ | $\mathbf{5 . 5 8}$ | $\mathbf{5 . 0 4}$ | $\mathbf{3 . 3 8}$ | $\mathbf{2 . 6 1}$ |  |  |
| Recreational ACL | 10.25 | 10.85 | 11.45 | 8.09 | 7.75 | 10.38 | 11.60 |  |  |
| Recreational discards | 2.08 | 2.20 | 2.32 | 2.28 | 1.60 | 2.10 | 2.34 |  |  |
| RHL | $\mathbf{8 . 1 6}$ | $\mathbf{8 . 6 5}$ | $\mathbf{9 . 1 4}$ | $\mathbf{5 . 8 1}$ | $\mathbf{6 . 1 5}$ | $\mathbf{8 . 2 8}$ | $\mathbf{9 . 2 7}$ |  |  |

${ }^{\text {a }}$ This is the no action/status quo alternative. The values shown here represent the catch and landings limits implemented in 2020, not example measures using the methodology described in this appendix.
Table 22: Scup example quotas and RHLs in millions of pounds, under an ABC of 35.77 million pounds.

| Scup |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2020 ABC: 35.77 mil lb. | CATCH-BASED |  |  | LANDINGS-BASED |  |  |  |  |
| Alternative | $\mathbf{1 b - 1 ~}^{\mathbf{a}}$ | $\mathbf{1 b - 2}$ | $\mathbf{1 b - 3}$ | $\mathbf{1 b - 4}$ | $\mathbf{1 b - 5}$ | $\mathbf{1 b - 6}$ | $\mathbf{1 b - 7}$ |  |
| Com. allocation | $\mathbf{7 8 \%}$ | $\mathbf{6 5 \%}$ | $\mathbf{6 1 \%}$ | $\mathbf{5 9 \%}$ | $\mathbf{5 7 \%}$ | $\mathbf{5 6 \%}$ | $\mathbf{5 0 \%}$ |  |
| Rec. allocation | $\mathbf{2 2 \%}$ | $\mathbf{3 5 \%}$ | $\mathbf{3 9 \%}$ | $\mathbf{4 1 \%}$ | $\mathbf{4 3 \%}$ | $\mathbf{4 4 \%}$ | $\mathbf{5 0 \%}$ |  |
|  |  |  |  |  |  |  |  |  |
| Commercial ACL | 27.90 | 23.25 | 21.82 | 21.10 | 21.49 | 21.18 | 19.27 |  |
| Commercial discards | 5.67 | 6.35 | 5.90 | 5.67 | 4.65 | 4.62 | 4.46 |  |
| Commercial quota | $\mathbf{2 2 . 2 3}$ | $\mathbf{1 6 . 9 0}$ | $\mathbf{1 5 . 9 2}$ | $\mathbf{1 5 . 4 4}$ | $\mathbf{1 6 . 8 5}$ | $\mathbf{1 6 . 5 6}$ | $\mathbf{1 4 . 8 1}$ |  |
| Recreational ACL | 7.87 | 12.52 | 13.95 | 14.67 | 14.28 | 14.59 | 16.50 |  |
| Recreational discards | 1.36 | 1.48 | 1.58 | 1.62 | 1.57 | 1.59 | 1.70 |  |
| RHL | $\mathbf{6 . 5 1}$ | $\mathbf{1 1 . 0 4}$ | $\mathbf{1 2 . 3 7}$ | $\mathbf{1 3 . 0 4}$ | $\mathbf{1 2 . 7 1}$ | $\mathbf{1 3 . 0 1}$ | $\mathbf{1 4 . 8 1}$ |  |

[^27]Table 23: Summer flounder example quotas and RHLs in millions of pounds, under an ABC of $\mathbf{2 5 . 0 3}$ million pounds.

| Summer Flounder |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2020 ABC: 25.03 mil lb . | CATCH-BASED |  |  | LANDINGS-BASED |  |  |  |
| Alternative | 1a-1 | 1a-2 | 1a-3 | 1a-4 ${ }^{\text {a }}$ | 1a-5 | 1a-6 | 1a-7 |
| Com. allocation | 44\% | 43\% | 40\% | 60\% | 55\% | 45\% | 41\% |
| Rec. allocation | 56\% | 57\% | 60\% | 40\% | 45\% | 55\% | 59\% |
|  |  |  |  |  |  |  |  |
| Commercial ACL | 11.01 | 10.76 | 10.01 | 13.53 | 12.69 | 10.72 | 9.92 |
| Commercial discards | 2.22 | 2.19 | 2.10 | 2.00 | 2.49 | 2.33 | 2.26 |
| Commercial quota | 8.79 | 8.57 | 7.92 | 11.53 | 10.20 | 8.38 | 7.65 |
| Recreational ACL | 14.02 | 14.27 | 15.02 | 11.51 | 12.34 | 14.31 | 15.11 |
| Recreational discards | 3.77 | 3.80 | 3.87 | 3.82 | 3.99 | 4.07 | 4.10 |
| RHL | 10.24 | 10.47 | 11.15 | 7.69 | 8.34 | 10.25 | 11.02 |

${ }^{\text {a }}$ This is the no action/status quo alternative. The values shown here represent the catch and landings limits implemented in 2020, not example measures using the methodology described in this appendix.

APPENDIX D: Acronyms and Abbreviations

| ABC | Acceptable Biological Catch |
| :--- | :--- |
| ACL | Annual Catch Limit |
| ACT | Annual Catch Target |
| AM | Accountability Measure |
| Board | The Commission's Summer Flounder, Scup, and Black Sea Bass <br> Management Board |
| Commission | Atlantic States Marine Fisheries Commission |
| Council | Mid-Atlantic Fishery Management Council |
| FMP | Fishery Management Plan |
| MC | Monitoring Committee |
| MRIP | Marine Recreational Information Program |
| NEFSC | Northeast Fisheries Science Center |
| NMFS | National Marine Fisheries Service |
| RHL | Recreational Harvest Limit |
| TAL | Total Allowable Landings |

## MEMORANDUM

Date: $\quad$ March 22, 2021
To: Council
From: Matthew Seeley, Staff
Subject: 2022-2024 Blueline Tilefish Specifications

As part of the 2022-2024 multi-year specification process for blueline tilefish, the Scientific and Statistical Committee (SSC) and Tilefish Monitoring Committee (MC) reviewed the most recent information to develop and recommend specifications.

The following materials are enclosed:

1. Blueline Tilefish Monitoring Committee Summary (March 22, 2021)
2. March SSC Report - Behind the Committee Reports Tab (March 2021)
3. Blueline Tilefish Staff Memo to Chris Moore (February 23, 2021)
4. Blueline Tilefish Fishery Performance Report (February 2021)
5. Blueline Tilefish Fishery Information Document (February 2021)

# Tilefish Monitoring Committee Meeting Summary 

March 2021

Dated: March 22, 2021
The Mid-Atlantic Fishery Management Council's (Council) Tilefish Monitoring Committee (MC) met via webinar on March 16, 2021 to review the most recent information and make recommendations for the 2022-2024 blueline tilefish specifications. The primary purpose of this report is to summarize the Tilefish MC recommendations for the 2022-2024 blueline tilefish specifications package. Please note: MC comments described below are not necessarily consensus or majority statements.

Committee Members present: John Maniscalco (NYSDEC), Laurie Nolan (Commercial), Paul Nitschke (NEFSC), Doug Potts (GARFO), Mike Auriemma (NJ DFW), José Montañez and Matt Seeley (Council Staff).

Others present: James Fletcher (UNFA), Dan Farnham (Council Member), and Paul Risi (Council Member).

## Discussion

The MC was presented with a summary of the SSC deliberations of the March 2021 SSC meeting, where the SSC reviewed the 2021 Blueline Tilefish Advisory Panel Fishery Performance Report and the 2021 Blueline Tilefish Fishery InformationDocument. The SSC recommended no changes to the previously set blueline tilefish ABC of 100,520 pounds ( 45.60 mt ) for 2022-2024.Following this recommendation, the MC discussed different components of blueline tilefish catch and recent fishery trends to recommend 2022-2024 management measures.

## Monitoring Committee Comments and Recommendations

## Annual Catch Targets and Landings Limits and Basis for Derivation

The comments and recommendations in this section are proposed as the 2022-2024 management measures. The recommended measures would remain status quo from the 2019-2021 specificationspackage. The MC recommended the annual catch limit (ACL) equal the annual catch target (ACT; no adjustment for management uncertainty) of 73,380 pounds ( 33.28 mt ) for the recreational sector and 27,140 pounds ( 12.31 mt ) for the commercial sector for the 2022-2024 fishing years. The MC recommended no changes to the $2 \%$ and $1 \%$ reduction for recreational and commercial discards, respectively, which defines the total allowable landings (TAL). The recommended recreational TAL is 71,912 pounds ( 32.62 mt ) and the commercial TAL is 26,869 pounds ( 12.19 mt ) for 2022-2024. All catch and landings limits are shown in Table 1.

## Recreational Management Measures

The MC recommended no changes to the current recreational management measures. The recreational season is May 1 - October 31 with bag limits set at 7 fish for U.S. Coast Guard inspected vessels, 5 fish for uninspected vessels, and 3 fish for private vessels. The MC recommended to not use MRIP numbers to estimate recreational harvest of blueline tilefish as the intercepts are continuously low for rare event species and unavailable in 2020 due to COVID-19.

There is still no comprehensive system set in place to monitor the recreational ACL. The MC discussed the status of private recreational permitting and reporting, which went live in August 2021. Since the recreational season closes on October $31^{\text {st }}$, three months of data associated with this brand-new initiative was not sufficient to fully assess the private recreational sector. During those three months, $\sim 340$ permits were issued and reported 8 trips landing a total of 84 fish. To supplement the limited data, Council staff also presented the blueline tilefish MRIP estimates through 2019, and estimates generated using a multiplier identified in the 2016 Delphi method ${ }^{1}$. To estimate recreational landings, an average weight of 3.65 pounds was used and is consistent with the approach taken in Amendment 6 to the Tilefish Fishery Management Plan (FMP).

The MC continued to question whether MRIP detectability issues for estimating blueline tilefish private recreational catch and harvest have improved enough to warrant the use of the MRIP survey in monitoring the recreational component. Therefore, the MC again recommended using the Delphi percentage of $105.16 \%$ of charter vessel landings to estimate landings for the private angler until private angler permitting/reporting becomes common practice. This is an interim fix to not having private recreational landings and will be used until more data is available or an improved method is developed. Party/charter landings will continue to be monitored using the most updated VTRs to assess the catch and landings in numbers of fish since MRIP estimates are consistently associated with very high percent standard errors. Overall recreational fishery performance is presented in Table 2 detailing the MC recommendations.

The MC shares the SSC's concern over the poorly described level of recreational catch for blueline tilefish. The MC notes that recreational effort and landings by party/charter vessels have increased in recent years and that private vessel activity has the potential to greatly alter total landings. Therefore, there is need for collection of recreational data that would help the monitoring component of the fishery. The MC continues to support the permitting and reporting requirements for tilefish that have been approved under Amendment 6 to the Tilefish FMP, however the MC anticipates it will take multiple years of data before the information can influence management.

[^28]
## Commercial Management Measures

The MC recommended no changes to the commercial season or trip limit which extends from January $1^{\text {st }}-$ December $31^{\text {st }}$ and limits vessels to 500 pounds (and is further reduced to 300 pounds once $70 \%$ of the commercial TAL has been landed). In 2020, the MC noted that the Greater Atlantic Regional Fisheries Office (GARFO) opted not to implement the reduction in trip limit to 300 pounds once the $70 \%$ threshold was surpassed considering the reduction was to occur shortly prior to the December $31^{\text {st }}$ season end. This decision may have played a role in the commercial sector landing 31,270 pounds, which exceeded the ACL of 27,140 poundsby $\sim 16 \%$. Now, GARFO staff are reviewing commercial catch accounting results to define when accountability measures may be triggered and exactly what poundage.

MC members discussed the overage associated with the commercial sector and recommended to the Council that accountability measures not be triggered for the 2021 fishing year. The MC developed this recommendation because the implications associated with the COVID-19 pandemic disrupted the fishery, GARFO made the decision to not implement the reduction in trip limit once the trigger was surpassed, the recreational sector substantially under-harvested their ACL (assuming a 3.65 -pound average weight and private recreational landings estimated with the Delphi multiplier), and there is likely minimal biological justification to reduce the commercial quota in 2021 since the quota overage was small. An adjustment for this small overage will likely not result in meaningful conservation for the stock.

## Discards

The MC recommended no changes to the $2 \%$ recreational and $1 \%$ commercial reduction from ACT to TAL for blueline tilefish discards. The current measures were developed using the average percentage of discards from 2011-2015. According to VTR data, discards in the recreational and commercial fisheries were both $\sim 1 \%$. Due to the uncertainty in landings within the recreational fishery and the continued increased trip limit for the commercial fishery, the MC recommended a status quo reduction from the ACT to TAL.

## Other

The MC expressed support for basic research on blueline tilefish life history and growth studies in the Mid-Atlantic to improve the understanding of stock structure and population dynamics. This research may then bolster the stock assessment methodology and reduce the many uncertainties associated with the current assessment (which utilizes a data limited approach).

The MC also recommended that GARFO and commercial port side biological samplers work with golden tilefish vessels in the Mid-Atlantic to improve overall intercepts and sampling of blueline tilefish. Obtaining landings at length information is difficult since sampling opportunities are rare because of the low quota. Given many golden tilefish vessels incidentally land blueline tilefish, the MC suggested the golden tilefish fleet call ahead to port side biological samplers when blueline tilefish have been encountered to improve data needs. The MC did express concern over whether this recommendation may induce bias into the sampling efforts, however, shoreside sampling of blueline tilefish is rare and any increase in sampling should support/improve the currently limited
data. Effortshould also be made in states south of New York to increase the likelihood of biological sampling of blueline tilefish to capture potential spatial size structure differences.

Table 1. Summary of SSC and MC recommendation for catch and landings limits for blueline tilefish for 2022-2024.

| Specification | Recreational | Commercial |
| :---: | :---: | :---: |
| ABC | $100,520 \mathrm{lbs}$ <br> $(45.60 \mathrm{mt})$ |  |
|  | $73,380 \mathrm{lbs}$ <br> $(33.28 \mathrm{mt})$ | $27,140 \mathrm{lbs}$ <br> $(12.31 \mathrm{mt})$ |
| ACTs | $73,380 \mathrm{lbs}$ | $27,140 \mathrm{lbs}$ |
|  | $(33.28 \mathrm{mt})$ | $(12.31 \mathrm{mt})$ |
| TALs | $71,912 \mathrm{lbs}$ | $26,869 \mathrm{lbs}$ |
|  | $(32.62 \mathrm{mt})$ | $(12.19 \mathrm{mt})$ |

Table 2. Blueline tilefish landings (ME-VA) using commercial dealer data, VTRs (party/charter: 2015-2020, private rental: 2020) and MRIP (private/rental: 2015-2019), as well as estimates of private/rental catch using the Delphi method (Delphi $-105.16 \%$ of charter). *Pound estimates are generated using a 3.65-pound average weight as identified in Amendment 6 to the Tilefish FMP and include the sum of Party, Charter, and Private Rental (Delphi- Numbers).

| Year | Commercial <br> (Pounds) | Party <br> (Numbers) | Charter <br> (Numbers) | Private <br> Rental <br> (MRIP 2015- <br> 2019, VTR <br> 2020 <br> Numbers) | Private <br> Rental <br> (Delphi - <br> Numbers) | *Total <br> Recreational <br> Landings <br> (pounds) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{2 0 1 5}$ | 73,644 | 12,381 | 2,298 | 4,663 | 2,417 | 62,400 |
| $\mathbf{2 0 1 6}$ | 14,235 | 13,746 | 2,057 | 116,833 | 2,163 | 65,576 |
| $\mathbf{2 0 1 7}$ | 10,734 | 8,735 | 1,632 | 12,122 | 1,716 | 44,103 |
| $\mathbf{2 0 1 8}$ | 13,068 | 4,796 | 7,885 | 2,989 | 8,291 | 76,548 |
| $\mathbf{2 0 1 9}$ | 22,759 | 3,247 | 7,679 | 4,839 | 8,075 | 69,354 |
| $\mathbf{2 0 2 0}$ | 31,270 | 6,166 | 3,626 | 84 | 3,813 | 49,658 |

# SSC Report is behind the Committee Reports tab. 

# MEMORANDUM 

Date: February 23, 2020
To: $\quad$ Dr. Chris Moore, Executive Director
From: Matthew Seeley, Staff
Subject: 2022-2024 Blueline Tilefish Specifications

## Summary

This memo supports the March 2021 Scientific and Statistical Committee (SSC) meeting for setting blueline tilefish specifications for up to three years (2022-2024). Given stock status is still unknown in the Mid-Atlantic, the next assessment is not scheduled until 2024/2025, and a lack of Northeast Fisheries Science Center data update through 2020, staff recommends a status quo Acceptable Biological Catch (ABC) of 100,520 pounds ( 45.60 mt ) for the 2022-2024 fishing years.

## Introduction

The Magnuson-Stevens Act requires each Council's SSC to provide, among other things, ongoing scientific advice for fishery management decisions, including recommendations for ABCs. The SSC recommends ABCs to the Mid-Atlantic Fishery Management Council (Council) that address scientific uncertainty such that overfishing is unlikely to occur per the Council's risk policy. The Council's ABC recommendations to the National Marine Fisheries Service (NMFS) for the upcoming fishing year(s) cannot exceed the ABC recommendation of the SSC. As such, the SSC's ABC recommendations form the upper limit for catches of Council-managed species.

Once the SSC meets and decides on an ABC, the Tilefish Monitoring Committee will convene to discuss if changes to other management measures should be recommended. These measures include annual catch limits (ACL), annual catch targets, discard calculations, management measures and accountability measures. The Council will then make recommendations to the NMFS Northeast Regional Administrator based on the SSC and Monitoring Committee recommendations.

## Regulatory Review

In June of 2015 emergency regulations were put into place in the Mid-Atlantic to temporarily constrain fishing effort on the blueline tilefish stock. These regulations consisted of a 300-pound commercial trip limit and a recreational seven fish bag limit and were extended through the 2016 fishing year.

In 2016, based on the output of the DLM Toolkit, which simulates stock responses to different harvest strategies, the SSC recommended a 2017 blueline tilefish ABC of 87,031 pounds as meeting the Council's risk policy to best avoid overfishing when guidance from a standard stock assessment is not available. This toolkit has been used previously by the SSC to develop ABC recommendations for black sea bass and Atlantic mackerel. Details on the analysis and rationale of the SSC can be found in the working group's report, available here ${ }^{1}$ (see subcommittee report and SSC presentation). This document also notes that due to the limited information on recreational blueline tilefish catch, the recreational catch histories used in the toolkit resulted from a Delphi Approach workshop with fishermen to develop an approximation of 2015 recreational catch. Then, a time series was created based on the Delphi Approach estimate and other available data.

In Spring 2017 the SSC recommended a status quo ABC of 87,031 pounds for 2018. Specifications were only recommended for one year as the $50^{\text {th }}$ Southeast Data, Assessment, and Review (SEDAR) benchmark assessment was anticipated to be completed late in 2017, which could change the biological reference points.

The 2017 SEDAR 50 benchmark assessment for blueline tilefish was split into two separate stocks, north and south of Cape Hatteras, North Carolina. ABC recommendations were set for the region south of Cape Hatteras (not overfished, overfishing not occurring), but data limitations restricted an ABC recommendation for the region north of Cape Hatteras, which encompasses part of the South Atlantic and the Mid-Atlantic management areas. To assist in developing an ABC recommendation, the Mid- and South Atlantic Councils/SSCs, as well as staff from the Northeast and Southeast Fisheries Science Centers developed a joint subcommittee to rerun the DLM Toolkit for the region north of Cape Hatteras. The results were partitioned at the Council boundaries using coastwide catch data from the pilot tilefish survey funded by the MAFMC out of SUNY Stony Brook.

As a result of rerunning the DLM Toolkit and partitioning the overlapping region (Cape Hatteras, NC to the VA/NC line), the SSC recommended an ABC of 100,520 pounds ( 45.60 mt ). The current ABC has remained status quo since the recommendation in 2018.

## Biological Reference Points, Stock Status, and Projections

At the March 2018 SSC meeting, the SSC reviewed the output from the most recent blueline tilefish DLMTool runs (as recommended by the Joint Mid- and South Atlantic Blueline Tilefish Subcommittee) as well as the output from the SEDAR 50 benchmark stock assessment and provided recommendations for annual overfishing limit (OFL) and ABC levels for 2019-2021². The SSC also concluded that the maximum sustainable yield (MSY) estimate based on the DLMTool analysis for the region north of Cape Hatteras is an estimate of the OFL, not the ABC (as recommended by the joint subcommittee), which enabled the SSC to use the $\mathrm{P}^{*}$ approach and the Council's risk policy in setting ABC specifications. This was considered a reasonable recommendation for 2019-2021 (with annual reviews) due to limited data and broad uncertainties

[^29](e.g. max age, short time series, no estimate of recruitment, etc.) within the fishery. Since the SSC lacked information on the estimate of stock biomass relative to $\mathrm{B}_{\mathrm{MSY}}$, a ratio of $\mathrm{B} / \mathrm{B}_{\mathrm{MSY}}=1$ was applied as a default value for the $\mathrm{P}^{*}$ (i.e., $\mathrm{P}^{*}=0.4$ under the MAFMC's risk policy in 2018). The SSC also assumed a typical life history (similar to golden tilefish). Based on this application of the Council's risk policy, the resulting SSC-recommended ABC was 179,500 pounds for 2019-2021 for the region north of Cape Hatteras. The SSC then followed the recommendation of the joint Mid- and South Atlantic Blueline Tilefish Subcommittee to allocate $56 \%$ of that ABC to the MAFMC (VA/NC border - north) and $44 \%$ to the South Atlantic Fishery Management Council. The basis for this percentage breakdown came from the catch results and random stratified design of the Pilot Blueline Tilefish Longline Survey (SUNY Stony Brook-Frisk et al. 2018). Using the $56 \%$ allocation, the MAFMC ABC for 2019-2021 was 100,520 pounds.

## Landings

Commercial dealer landings through 2020 are presented in Table 1. Commercial landings ( MaineVirginia) were generally very low (less than 20,000 pounds) throughout the time series except for 2013-2015, when regulations south of Virginia, the lack of regulations in federal waters from Virginia north, and the lack of state regulations in New Jersey drove effort northward and into New Jersey. In 2018, the Council approved an increase in trip limit from 300 to 500 pounds. Additionally, a trigger to reduce the commercial trip limit back to 300 pounds was implemented to assist in ensuring the ACL was not exceeded within this new data limited fishery. As indicated by the advisors, this approach worked well in 2019 because there was an opportunity for fishermen to target more fish without creating a large directed fishery. However, given the COVID-19 pandemic and the inherent quota monitoring challenges associated with this fishery, the commercial ACL was exceeded by $\sim 16 \%$ ( 2020 Catch: $31,583,2020$ ACL: 27,140). NMFS quota monitoring is in the process of validating this overage and identifying if/when accountability measures will be triggered.

Recreational catch described by combined party/charter vessel trip reports (VTRs) is reported in Table 2. Reported catch and discards have remained between approximately $10,000-15,000$ fish since 2012. Previous work with the advisors and other blueline tilefish recreational fishermen has suggested VTR reporting compliance began to encompass at least the primary headboats in 2012. Private recreational angler landings are available from the Marine Recreational Information Program (except for 2020 due to COVID-19), but blueline tilefish intercepts are rare occurrences and the estimates are often associated with very high percent standard errors. As an alternative approach to estimating private angler performance, the Monitoring Committee previously recommended using the Delphi ${ }^{3}$ percentage of $105.16 \%$ of charter vessel landings to estimate private angler landings (Table 3). This approach will be revisited again at the upcoming March Monitoring Committee meeting.

[^30]
## Private Recreational Permitting and Reporting

To improve tilefish management, the Greater Atlantic Regional Fisheries Office initiated private recreational permitting and reporting for tilefish anglers in August 2020. Given the recreational fishing season runs from May $1^{\text {st }}$ to October $31^{\text {st }}$, limited data was gathered over the first 3 months. Ultimately, this initiative should allow for improved monitoring of the recreational fishery and provide ample data necessary to improve the future stock assessment process.

## OFL/ABC Recommendations

Following the 2018 approach detailed in the Biological Reference Points, Stock Status, and Projections section, the SSC previously recommended an ABC of 100,520 pounds ( 45.60 mt ) to the Mid-Atlantic management area for 2019-2021. Considering this recommendation, recent fishery performance, lack of an updated assessment, the need to streamline the Mid-Atlantic specifications cycle with a SEDAR assessment scheduled for 2024/2025, and the high degree of uncertainty within the recreational sector, Council staff recommends a status quo ABC of $\mathbf{1 0 0 , 5 2 0}$ pounds ( $\mathbf{4 5 . 6 0} \mathbf{~ m t}$ ) for the 2022-2024 specifications package.

Table 1. Commercial blueline tilefish landings (live weight) from Maine-Virginia, 2000-2020. Source: NMFS unpublished dealer data.

| Year | Landings (Pounds) |
| :---: | :---: |
| 2000 | 2,446 |
| 2001 | 955 |
| 2002 | 269 |
| 2003 | 7,601 |
| 2004 | 5,827 |
| 2005 | 2,031 |
| 2006 | 3,039 |
| 2007 | 21,068 |
| 2008 | 8,495 |
| 2009 | 9,626 |
| 2010 | 8,388 |
| 2011 | 8,179 |
| 2012 | 9,624 |
| 2013 | 26,781 |
| 2014 | 215,928 |
| 2015 | 73,644 |
| 2016 | 14,235 |
| 2017 | 10,734 |
| 2018 | 13,068 |
| 2019 | 22,759 |
| 2020 | 31,270 |

Table 2. Blueline tilefish party/charter VTR landings and reported discards from MaineVirginia, 2012-2020. Source: NMFS unpublished VTR data.

| Year | Number of Trips | Landings <br> (Numbers of Fish) | Reported Discards <br> (Numbers of Fish) |
| :---: | :---: | :---: | :---: |
| 2012 | 103 | 10,051 | 338 |
| 2013 | 120 | 11,838 | 128 |
| 2014 | 138 | 15,849 | 254 |
| 2015 | 170 | 14,391 | 292 |
| 2016 | 158 | 15,493 | 246 |
| 2017 | 129 | 10,164 | 115 |
| 2018 | 221 | 12,432 | 99 |
| 2019 | 166 | 10,711 | 176 |
| 2020 | 143 | 9,600 | 174 |

Table 3. Recreational blueline tilefish catch (Maine-Virginia) using VTRs (party/charter: 20152020, private rental: 2020) and MRIP (private/rental: 2015-2019), as well as estimates of private/rental catch using the Delphi method (Delphi - 105.16\% of charter).

| Year | Party <br> (Numbers) | Charter <br> (Numbers) | Private Rental <br> (MRIP 2015-2019, <br> VTR 2020 Numbers) | Private Rental <br> (Delphi - <br> Numbers) |
| :---: | :---: | :---: | :---: | :---: |
| $\mathbf{2 0 1 5}$ | 12,381 | 2,298 | 4,663 | 2,417 |
| $\mathbf{2 0 1 6}$ | 13,746 | 2,057 | 116,833 | 2,163 |
| $\mathbf{2 0 1 7}$ | 8,735 | 1,632 | 12,122 | 1,716 |
| $\mathbf{2 0 1 8}$ | 4,796 | 7,885 | 2,989 | 8,291 |
| $\mathbf{2 0 1 9}$ | 3,247 | 7,679 | 4,839 | 8,075 |
| $\mathbf{2 0 2 0}$ | 6,166 | 3,626 | 84 | 3,813 |

Blueline Tilefish Fishery Performance Report
February 2021
The Mid-Atlantic Fishery Management Council's (Council) Tilefish Advisory Panel (AP) met via webinar on February 17, 2021 to review the Fishery Information Document and develop the following Fishery Performance Report. The primary purpose of this report is to contextualize catch histories by providing information about fishing effort, market trends, environmental changes, and other factors. A series of trigger questions listed below were posed to the AP to generate discussion of observations in the blueline tilefish fishery. Please note: Advisor comments described below are not necessarily consensus or majority statements.

Advisory Panel members present: Fred Akers (Private), Gregory Hueth (Private/For-hire), Robert Bogan (For-hire), Doug Zemeckis (Rutgers), Skip Feller (For-hire), and Michael Johnson (Commercial).

Others present: Paul Nitschke (NEFSC), Dan Farnham (Council Member), Scott Lenox (Council Member), Sonny Gwin (Council Member), Dewey Hemilright (Council Member), Joe Cimino (Council Member), Michelle Duval (Council Member), James Fletcher (UNFA), Laurie Nolan (Commercial), Doug Potts (GARFO), Paul Rago (SSC), Matthew Seeley (Council Staff), and José Montañez (Council Staff).

## Trigger questions

1. What factors have influenced recent catch (markets/economy, environment, regulations, other factors)?
2. Are the current fishery regulations appropriate? How could they be improved?
3. What would you recommend as research priorities?
4. What else is important for the Council to know?

## Factors Influencing Catch

In 2020, the COVID-19 pandemic resulted in less for-hire trips and decreased effort overall. However, one advisor indicated that private recreational effort increased, as they observed more recreational fishing boats everywhere in state and federal waters and confirmed that recreational boat sales increased in 2020. For the commercial sector, the quota was exceeded in 2020 and the advisors indicated that individuals from other fisheries may have transitioned to targeting bluelines and also noted that the small quota is difficult to monitor/manage when trips land up to 500 pounds.

AP members confirmed that no major changes have been observed for blueline tilefish in terms of catch rates/composition. Once blueline tilefish limits are met, recreational trips search for other targets (often golden tilefish). However, the commercial advisors from New York indicated they
rarely direct on blueline tilefish and only land incidentally. These incidental landings come from the east end of long island since there is little to no effort in the Baltimore and Wilmington Canyon area.

AP members indicated that the majority of time they target blueline tilefish they land the recreational trip limits. They also indicated that the 3 fish limit is quite limiting. Additionally, the seasonal closure on October 31 could potentially depress catch and effort, which may be beneficial to the stock. Often AP members try to target golden tilefish and find that blueline tilefish abundance is limiting.

Recreational effort decreased this year as it does not make economic sense to target blueline tilefish when tuna are not present. Typically, moderate tuna availability in deeper water translates into the highest effort (enough tuna to create effort, but not so much as to occupy interest for a whole trip). In 2020, advisors indicated there was less pressure on blueline tilefish because the tuna were plentiful and found in shallower waters. However, a Council member on the call indicated private landings in Maryland alone were over 84 fish (the coastwide estimate of private landings from August to October) because they are less dependent on tuna abundance, and more so on swordfish.

Regulations are keeping harvest where they should be since we currently to not have an accepted stock assessment in the Mid-Atlantic. Advisors agreed that they want to see how the current specifications and management measures play out since this is still a newly managed fishery in the Mid-Atlantic. Improved reporting from the rec sector will help.

## Market/Economic Conditions

Advisors indicated that in New York (Hunts Point) they were receiving approximately $\$ 2.88$ per pound, and occasionally as high as $\$ 4.00$ per pound for larger fish. Advisors remain confident that there is continued demand for blueline tilefish, but this demand is driven by low and sporadic supply. Overall, blueline tilefish is becoming a more appreciated species.

## Management Issues

To avoid regulatory discarding, anglers often shift effort away from blueline tilefish once the limit is reached. Small amounts of discards do occur as incidental interactions when targeting golden tilefish. But multiple advisors indicated they often know where blueline tilefish are and they know how to avoid them. Thus, the trip limit did not really affect the incidental fishery.

AP members advocate to maintain the 3 (private), 5 (U.S. Coast Guard uninspected vessel), 7 (U.S. Coast Guard inspected vessel) bag limits in place since there is currently limited reporting for private anglers and we are still learning how the fishery responds to management in the MidAtlantic. Additionally, advisors indicated they would like to see captain and crew included in the bag limits and noted that if bag limits drop lower than 7 fish the head boat community will have greater difficulty filling their trips. Furthermore, daytime swordfishing has taken pressure off blueline tilefish and advisors are looking for liberalization in the private sector.

Some AP members would like the Council to consider a higher trip limit for longer recreational trips, structured after Gulf of Mexico regulations (makes filling trips easier). Other AP members
were concerned about the impact of higher recreational limits on the overall fishery especially given low ABC and recreational catch uncertainty. Ultimately, advisors want to avoid creating a directed fishery especially with the uncertainty of the overall stock.

It was noted at the meeting that there is a general decrease in port sampling, which can greatly impact future assessments, particularly tilefish as it relies critically on cyclical recruitment. Port sampling is a key factor that will help identify the life history characteristics of blueline tilefish that will improve the overall stock assessment process.

## Research Priorities

Discussion focused on the need to improve the understanding of biological and life history traits. Specifically, age validation, maturity, post-release mortality, and movement. One advisor stated that a defined sampling program has the potential to hit on multiple priorities. For example, developing a tagging program (using applied and natural tags) offers insight into movement, age, maturity, and habitat preference. There are more bluelines now than in previous years and they are being identified in places they have never been before (even in waters as shallow as $60-80$ feet off Block Island).

The AP remained unanimous in their recommendation and continued support for private recreational permitting and reporting. The information gathered in 2020 was only from August through October, so the AP is looking forward to the continuation of this initiative to better understand recreational catch/landings and effort.

The AP also reviewed the Council's comprehensive research plan for blueline tilefish and noted that all research focusing on life history characteristics and monitoring (i.e., improvements to biological sampling, aging methods, habitat studies, assessment of discards, mean weight estimates, and collection of catch per unit effort data) are necessary to improve our understanding of the stock and to work towards a successful assessment.

## Blueline Tilefish Fishery Information Document

February 2021
This Fishery Information Document provides a brief overview of the biology, stock condition, management system, and fishery performance for blueline tilefish with an emphasis on 2020. Data sources for Fishery Information Documents are generally from unpublished National Marine Fisheries Service (NMFS) survey, dealer, vessel trip report (VTR), permit, and Marine Recreational Information Program (MRIP) databases and should be considered preliminary. For more resources, including previous Fishery Information Documents, please visit http://www.mafmc.org/tilefish/.

## Key Facts

- There has been no change to the unknown stock status since the 2017 assessment.
- Recreational permitting/reporting requirements are in place for private tilefish anglers.
- $\mathrm{ABC}=100,520$ pounds, Commercial $\mathrm{ACL}=27,140$ pounds, Recreational $\mathrm{ACL}=73,380$ pounds
- The commercial fishery is open year-round with a trip limit of 500 pounds gutted (heads and fins attached) weight that is reduced back to 300 pounds once $70 \%$ of the quota has been landed.
- The recreational fishery is open from May 1 - October 31. Bag limits are as follows: private vessels: 3-fish, for-hire vessel (no USCG inspection): 5-fish, for-hire vessel (with USCG inspection): 7-fish.
- Commercial landings increased by 37\% from 2019 to 2020 (22,759 to 31,270 pounds) while the price per pound increased by $\sim 9 \%$ from $\$ 2.65$ to $\$ 2.88$ from 2019 to 2020.
- Commercial catch exceeded the ACL by $\sim 16 \%$ (Catch: 31,583, ACL: 27,140), which may result in a pound for pound payback in the 2021 fishing year.
- In 2020, party/charter anglers reported a $\sim 10 \%$ decrease in catch compared to 2019 (10,925 to 9,792 pounds).


## Basic Biology

Blueline tilefish are primarily distributed from Campeche, Mexico northward through the MidAtlantic (Dooley 1978). Several recently completed studies suggest that blueline tilefish from the eastern Gulf of Mexico through the Mid-Atlantic are comprised of one genetic stock (SEDAR 50 Data Workshop). This homogenous stock inhabits the shelf edge and upper slope reefs at depths of $150-840$ feet ( $46-256 \mathrm{~m}$ ) and temperatures between $59-73^{\circ} \mathrm{F}\left(15-23^{\circ} \mathrm{C}\right)$ where they are considered opportunistic predators that feed on prey associated with substrate (crabs, shrimp, fish, echinoderms, polychaetes, etc.) (Sedberry et al. 2006 and Ross and Huntsman 1982)). They are
sedentary in nature and burrow into sandy areas in close association with rocky outcroppings (SEDAR 2017).

Blueline tilefish are long-lived fish reaching sizes up to about 36 inches ( 91 cm ) and exhibit dimorphic growth with males attaining larger size-at-age than females. Males are predominant in the size categories greater than 26 inches ( 66 cm ) fork length. Blueline tilefish are classified as indeterminate spawners, with up to 110 spawns per individual based on the estimates of a spawning event every 2 days during a protracted spawning season from approximately February through November. Additionally, an aging workshop conducted to support the blueline tilefish assessment has called into question the ability to accurately age blueline tilefish, so previous age determinations may no longer be accurate (SEDAR 2017).

## Status of the Stock

Prior to management of blueline tilefish in the Mid-Atlantic, NMFS listed blueline tilefish as overfished, but not overfishing from the Southeast Data, Assessment, and Review (SEDAR) 32 conducted in 2013 (SEDAR 2013). More recently, updated stock status information was identified through the 2017 benchmark assessment, SEDAR 50 (SEDAR 2017). Genetic work conducted for SEDAR 50 suggests a genetically homogenous population off the entire Atlantic coast yet does not suggest what catch may be appropriate off various parts of the coast. In SEDAR 50, the blueline tilefish stock was split in two, north and south of Cape Hatteras to allow each Council (Mid and South Atlantic) to set their own specifications. The stock south of Cape Hatteras was determined to be not overfished with overfishing not occurring. The assessment did not provide stock status information relevant to the Mid-Atlantic management area due to insufficient data.

## Management System and Fishery Performance

## Management

The Mid-Atlantic Fishery Management Council (Council or MAFMC) established management of blueline tilefish north of the Virginia/North Carolina border through Amendment 6 to the Tilefish Fishery Management Plan. In 2016, initial measures were set using a data limited approach and the Delphi Method (Southwick and Associates 2016).

Following the 2017 SEDAR 50 assessment where no recommendations were made for the region north of Cape Hatteras, which extends beyond the Council management areas of the Virginia/North Carolina border, the MAFMC and South Atlantic Fishery Management Council (SAFMC) formed a joint blueline tilefish subcommittee. The subcommittee used the Data Limited Toolkit to develop acceptable biological catch (ABC) recommendations for the respective Scientific and Statistical Committees (SSC). This offered an opportunity to partition blueline tilefish ABCs that crossed the two management areas (north of Cape Hatteras). The MAFMC SSC developed the 2019-2021 blueline tilefish ABC recommendation of 100,520 pounds at its March 2018 meeting. The SAFMC’s SSC proposed blueline tilefish ABCs of 233,968 pounds for 20202022 (Abbreviated Framework Amendment 3 to the FMP for the Snapper Grouper Fishery of the South Atlantic Region).

In the Mid-Atlantic, commercial vessels can fish year-round and are limited to 500 pounds gutted (heads and fins attached) weight until 70\% of the quota (Commercial Total Allowable Landings =

26,869 pounds) has been landed, then the trip limit is reduced to 300 pounds gutted (heads and fins attached) weight.

The recreational blueline tilefish season is open from May 1 to October 31 and the possession limit depends on the type of vessel being used (Recreational Total Allowable Landings = 71,912 pounds). Anglers fishing from private vessels are allowed to keep up to three blueline tilefish per person per trip. Anglers fishing from a for-hire vessel that has been issued a valid federal Tilefish Party/Charter Permit but does not have a current U.S. Coast Guard safety inspection sticker can retain up to five blueline tilefish per person per trip. Finally, anglers on for-hire vessels that have both a valid federal Tilefish Party/Charter Permit and a current U.S. Coast Guard safety inspection sticker can retain up to seven blueline tilefish per person per trip.

## Commercial Fishery

Commercial landings (Maine-Virginia) were generally very low (less than 20,000 pounds) throughout the time series except for 2013-2015, when regulations south of Virginia, the lack of regulations in federal waters from Virginia north, and the lack of state regulations in New Jersey drove effort northward and into New Jersey (Figure 1 and Table 1). Further breakdown by year/state may violate data confidentiality rules (especially for 2016 and 2017). In 2020, 1,937 individuals held federal commercial tilefish permits (valid for both golden and blueline tilefish) and landed 31,270 pounds (Tables 1 and 2). Discards are calculated as $1 \%$ of overall commercial landings resulting in 313 pounds for 2020. Thus, total commercial catch was 31,583, which exceeds the 27,140 -pound ACL by $\sim 16 \%$. Given the ACL has been exceeded, the tilefish accountability measures indicate "landings in excess of the commercial ACL will be deducted from the commercial ACL for the following year".


Figure 1. Commercial blueline tilefish landings (live weight) from Maine-Virginia, 2000-2020. Source: NMFS unpublished dealer data.

Table 1 and Table 2. Commercial blueline tilefish landings (live weight) from Maine-Virginia, 2000-2020 (Table 1) and 2020 by state (Table 2). Source: NMFS unpublished dealer data. Confidential means less than 3 vessels landed blueline tilefish.
1.)

| Year | Pounds |
| :---: | :---: |
| 2000 | 2,446 |
| 2001 | 955 |
| 2002 | 269 |
| 2003 | 7,601 |
| 2004 | 5,827 |
| 2005 | 2,031 |
| 2006 | 3,039 |
| 2007 | 21,068 |
| 2008 | 8,495 |
| 2009 | 9,626 |
| 2010 | 8,388 |
| 2011 | 8,179 |
| 2012 | 9,624 |
| 2013 | 26,781 |
| 2014 | 215,928 |
| 2015 | 73,644 |
| 2016 | 14,235 |
| 2017 | 10,734 |
| 2018 | 13,068 |
| 2019 | 22,759 |
| 2020 | 31,270 |

2.)

| State | Pounds (2020) |
| :---: | :---: |
| MA | Confidential |
| RI | 3,469 |
| NY | 1,849 |
| NJ | 4,049 |
| MD | 9,872 |
| DE | Confidential |
| VA | 11,713 |
| Total | 31,270 |

Aggregate landings from the 2000-2020 time-series are approximately $64 \%$ from bottom longline, with most of the remaining landings coming from bottom trawl and handline. Over half of all landings in the time series were bottom longline into New Jersey in 2013-2015 prior to MidAtlantic management. Landings from all other gear types are low and variable from year to year. The breakdown of commercial landings by gear (based on VTRs) for 2020 are presented in Table 3. Furthermore, Table 4 presents landings by trip in pounds bins.

Table 3 and Table 4. Commercial blueline tilefish landings (live weight) in 2020 by gear (Table 3 ) and trip presented in pound bins (Table 4) from Maine-Virginia. Source: VTR database.

## 3.)

| Gear | Pounds $^{\mathbf{1}}$ | Percent |
| :---: | :---: | :---: |
| Longline | 13,545 | $48.05 \%$ |
| Handline | 10,130 | $35.94 \%$ |
| Trawl | 3,632 | $12.89 \%$ |
| Pots/Traps | 880 | $3.12 \%$ |
| Total | 28,187 | $100 \%$ |

## 4.)

| Pound Range | Trips (N) |
| :---: | :---: |
| $500+$ | 13 |
| $400-499$ | 10 |
| $300-399$ | 11 |
| $200-299$ | 33 |
| $100-199$ | 27 |
| $1-199$ | 50 |
| Total | 144 |

Statistical areas 626, 622, 632, 616 and 621 accounts for the majority of catch for the 2000-2020 period (Figure 2 and Table 5) as well as the 2020 fishing year. A further breakdown by year/area may violate data confidentiality rules.


Figure 2. Top 5 NMFS statistical areas accounting for total 2020 blueline tilefish landings identified with commercial VTRs. Source: NMFS unpublished VTR data.

[^31]Table 5. Top 5 statistical areas summarizing blueline tilefish landings greater than 10,000 pounds from Maine-Virginia for 2000-2020. Source: NMFS unpublished VTR data.

| Stat Area | 2000-2020 Landings (Pounds) |
| :---: | :---: |
| 626 | 239,658 |
| 622 | 40,576 |
| 632 | 52,674 |
| 616 | 51,895 |
| 621 | 29,816 |

Commercial blueline tilefish ex-vessel revenues (nominal) and price (inflation adjusted to 2019 dollars) are described in Figures 3 and 4. Since blueline tilefish have been managed by the Council (secretarial interim action in 2016), the ex-vessel value has averaged \$49,185 at approximately $\$ 2.59$ per pound. For 2020, the ex-vessel value was $\$ 90,092$ at $\$ 2.88$ per pound.


Figure 3. Ex-vessel revenues for blueline tilefish, Maine to Virginia combined, 2000-2020. Source: NMFS unpublished dealer data.


Figure 4. Price for blueline tilefish, Maine to Virginia combined, 2000-2020. Note: Price data have been adjusted by the GDP deflator indexed for 2019 (2020 - unadjusted). Source: NMFS unpublished dealer data.

## Recreational Fishery

In 2020, 606 tilefish permits were issued to party/charter vessels within the relatively small recreational fishery. Stakeholders believe that VTR reporting compliance for blueline tilefish has been low, especially historically and for charter vessels. Table 6 provides the available VTR reports for blueline tilefish since 2012, when previous work with the advisors and other blueline tilefish recreational fishermen has suggested VTR reporting compliance began to encompass at least the primary head boats. For 2020, the for-hire sector landed 9,600 blueline tilefish. Recreational discards are calculated as $2 \%$ of overall landings resulting in 192 fish for 2020 (as compared to the number of reported discards - 174 fish). Thus, total recreational catch was 9,792 fish. Until recently, blueline tilefish landings by private anglers were only estimated via MRIP, however intercepts in the MRIP are an exceedingly rare event (Table 7).

Table 6. Blueline tilefish party/charter VTR landings and reported discards from Maine-Virginia, 2012-2020. Source: NMFS unpublished VTR data.

| Year | Number <br> of Trips | Landings <br> (Numbers of Fish) | Estimated Discards <br> ² <br> (Numbers of Fish) | Reported Discards <br> (Numbers of Fish) |
| :---: | :---: | :---: | :---: | :---: |
| 2012 | 103 | 10,051 | 201 | 338 |
| 2013 | 120 | 11,838 | 237 | 128 |
| 2014 | 138 | 15,849 | 317 | 254 |
| 2015 | 170 | 14,391 | 288 | 292 |
| 2016 | 158 | 15,493 | 310 | 246 |
| 2017 | 129 | 10,164 | 203 | 115 |
| 2018 | 221 | 12,432 | 249 | 99 |
| 2019 | 166 | 10,711 | 214 | 176 |
| 2020 | 143 | 9,600 | 192 | 174 |

Table 7. Recreational blueline tilefish re-calibrated MRIP catch estimates (2020 - no MRIP intercepts) by state and mode. Source: NMFS unpublished MRIP data.

| Year | State | MRIP Catch <br> (Numbers of fish) | Mode |
| :---: | :---: | :---: | :---: |
| 2015 | DE | 4,663 | Private/Rental |
| 2016 | MD | 46,106 | Private/Rental |
| 2016 | NJ | 9,924 | Private/Rental |
| 2016 | VA | 1,222 | Charter |
| 2016 | VA | 60,803 | Private/Rental |
| 2017 | VA | 12,122 | Private/Rental |
| 2018 | DE | 19 | Charter |
| 2018 | MD | 11 | Party |
| 2018 | VA | 2,373 | Charter |
| 2018 | VA | 2,989 | Private/Rental |
| 2019 | MD | 4,839 | Private/Rental |
| 2019 | VA | 7 | Party |
| 2019 | VA | 2,294 | Charter |

## Private Recreational Angler Permitting and Reporting

To improve tilefish management and reporting, the Greater Atlantic Regional Fisheries Office (GARFO) implemented mandatory private recreational permitting and reporting for tilefish anglers in August 2020. This action was approved in late 2017, but with delayed implementation. Outreach materials and webinars were provided by GARFO and the Council leading up to the final rule and will continue to be circulated as these regulations become commonplace.

Under this rule, private recreational vessels (including for-hire operators using their vessels for non-charter, recreational trips) are required to obtain a federal vessel permit to target or retain

[^32]blueline or golden tilefish north of the Virginia/North Carolina border. These vessel operators would also be required to submit VTRs electronically within 24 hours of returning to port for trips where tilefish were targeted or retained. For more information about the proposed requirements, check out the Recreational Tilefish Permitting and Reporting FAQs.

## Permitting

Get your federal private recreational tilefish vessel permit through Fish Online. This new permit is required even if a vessel already holds a for-hire tilefish permit. Call the GARFO Permit Office at 978-282-8438 for questions about the permitting process.

## Reporting

NOAA Fisheries is encouraging anglers not already using another electronic VTR system to utilize NOAA Fish Online, which is available through a mobile app or a web-based portal. Other systems that may be suitable for recreational anglers include SAFIS eTrips/mobile and SAFIS eTrips Online. You can access information about approved applications and other aspects of electronic reporting on the NOAA Fisheries website.
Additionally, a new app has been released to make the reporting process increasingly easy and convenient. Harbor Light Software’s eFin Logbook has received certification from NOAA Fisheries as an approved application through which anglers can report their trips. Funded by the Council, eFin Logbook is a user-friendly application designed specifically for recreational tilefish anglers. The app is available for use on all Apple and Android mobile devices (iPhone, iPad, Android phone, and Android tablet).

At present, eFin Logbook can only be used by tilefish recreational anglers to satisfy reporting requirements. Future modifications may expand its capabilities to other reporting and personal fishing log applications. For-hire operators, many of whom have other reporting requirements, are encouraged to choose different software. To learn more about other electronic reporting options and decide which one is right for you, visit the NOAA Fisheries Greater Atlantic Region Electronic Reporting Web Page.

Given these requirements have only been in place since August 2020 and the recreational fishery closes on October 31, the following data should be considered preliminary. As of February 1, 2021, 340 tilefish permits have been issued for private recreational anglers. This permit allows recreational anglers to land both blueline and golden tilefish. For the 2020 fishing year, 8 private recreational trips were reported by recreational anglers with landings equal to 84 fish. The low landings associated with private anglers may be attributed to the short fishing season (as a result of when implementation occurred), this being the first-time recreational anglers are required to report, and the COVID-19 pandemic decreasing effort further offshore.
Currently, there is no average weight that can be applied to blueline tilefish across the coast as average weights vary significantly. Thus, recreational catch is summarized in numbers of fish. For 2020, MRIP reported no blueline tilefish landings through the private/rental mode, however, 84 fish were reported through the new private angler permitting/reporting requirements. VTRs presented 9,792 fish caught (including estimated discards) via the for-hire fleet. Total recreational removals are then estimated to be 9,876 fish. Catch in pounds is then estimated using a range of accepted weights (3-6 pounds from NY to NC, as indicated by the tilefish advisors) across the coast (Table 8). For reference, an accepted average weight of 3.65 pounds was proposed in Amendment 1 to the Tilefish FMP.

Table 8. Coastwide recreational blueline tilefish catch using VTRs (party/charter: 2015-2020, private recreational: 2020) and MRIP (private/rental: 2015-2019) with assumed weights.

| Year | 3 Pounds | 4 Pounds | 5 Pounds | 6 Pounds |
| :---: | :---: | :---: | :---: | :---: |
| $\mathbf{2 0 1 5}$ | 58,305 | 77,740 | 97,175 | 116,610 |
| $\mathbf{2 0 1 6}$ | 404,918 | 539,890 | 674,863 | 809,835 |
| $\mathbf{2 0 1 7}$ | 68,195 | 90,927 | 113,659 | 136,390 |
| $\mathbf{2 0 1 8}$ | 47,188 | 62,918 | 78,647 | 94,377 |
| $\mathbf{2 0 1 9}$ | 47,583 | 63,444 | 79,305 | 95,166 |
| $\mathbf{2 0 2 0}$ | 29,633 | 39,511 | 49,388 | 59,266 |

In 2020, Tilefish Monitoring Committee members questioned whether MRIP detectability issues for estimating blueline tilefish private recreational harvest have improved enough to warrant the use of the MRIP survey in monitoring the recreational component. To monitor the recreational fishery, the MC recommended using the Delphi ${ }^{3}$ percentage of $105.16 \%$ of charter vessel landings to estimate landings for the private angler. This is an interim fix to not having robust estimates of private recreational landings and will be used until more data is available or an improved method is developed. Party/charter landings will continue to be monitored using the most updated VTRs to assess the catch and landings in numbers of fish (Table 9).

Table 9. Recreational blueline tilefish catch (ME-VA) using VTRs (party/charter: 2015-2020, private rental: 2020) and MRIP (private/rental: 2015-2019), as well as estimates of private/rental catch using the Delphi method (Delphi - 105.16\% of charter).

| Year | Party <br> (Numbers) | Charter <br> (Numbers) | Private Rental <br> (MRIP 2015-2019, <br> VTR 2020 Numbers) | Private Rental <br> (Delphi - <br> Numbers) |
| :---: | :---: | :---: | :---: | :---: |
| $\mathbf{2 0 1 5}$ | 12,381 | 2,298 | 4,663 | 2,417 |
| $\mathbf{2 0 1 6}$ | 13,746 | 2,057 | 116,833 | 2,163 |
| $\mathbf{2 0 1 7}$ | 8,735 | 1,632 | 12,122 | 1,716 |
| $\mathbf{2 0 1 8}$ | 4,796 | 7,885 | 2,989 | 8,291 |
| $\mathbf{2 0 1 9}$ | 3,247 | 7,679 | 4,839 | 8,075 |
| $\mathbf{2 0 2 0}$ | 6,166 | 3,626 | 84 | 3,813 |

[^33]
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## MEMORANDUM

Date: 22 March 2021
To: Council
From: José Montañez
Subject: Tilefish Multi-Year Specifications Framework (FW) - Meeting 1.

In this tab, please find the Draft FW Document for Council review. The purpose of this first framework meeting is for the Council to review the range of alternatives presented in the document and if possible, identify preferred alternatives. Staff will also discuss the timeline for document completion.

This FW considers measures to revise the specifications process by considering the duration for setting multi-year management measures and the timing of the fishing year. In addition, this FW will set new specifications for 2023-2024.

# MULTI-YEAR SPECIFICATIONS <br> FRAMEWORK FRAMEWORK ADJUSTMENT \#X <br> TO THE TILEFISH <br> FISHERY MANAGEMENT PLAN 

# DRAFT ENVIRONMENTAL ASSESSMENT (EA) <br> (Including a Regulatory Impact Review, Regulatory Flexibility Act Analysis) 

April 2021

Mid-Atlantic Fishery Management Council
in cooperation with
the National Marine Fisheries Service

First Framework Meeting: April 7, 2021
Second Framework Meeting and Council Action: August XX, 2021
Draft EA submitted to NOAA: XXXXXXX
Final approved by NOAA: XXXXXXX (Effective XXXXXXX)

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### 1.0 EXECUTIVE SUMMARY

In this Framework Adjustment to the Tilefish Fishery Management Plan (FMP), the MidAtlantic Fishery Management Council (MAFMC or Council) considered measures to revise the specifications process by considering the duration for setting multi-year management measures and the timing of the fishing year. In addition, this framework will set new specifications for 2023-2024.

The first action would change the process by altering the duration that multi-year management measures for golden tilefish can be set (currently 3 year maximum). This action would modify the annual specifications process, so that they could be set for the maximum number of years needed to be consistent with the Northeast Region Coordinating Council (NRCC) approved stock assessment schedule. This action will address an approved Council directive to "Initiate a framework to allow golden tilefish specifications to be set for more than 3 years" which was included in the Council's 2021 Implementation Plan. This issue was included in the Council's 2021 Implementation Plan in response to Executive Order (EO) 13921 (Promoting American Seafood Competitiveness and Economic Growth). The purpose of this EO is, "to strengthen the American economy; improve the competitiveness of American industry; ensure food security; provide environmentally safe and sustainable seafood; support American workers; ensure coordinated, predictable, and transparent Federal actions; and remove unnecessary regulatory burdens."

The second action would change the timing of the fishing year. Current regulations define the golden tilefish fishing year as the 12-month period from November 1 - October 31. The Golden Tilefish Individual Fishing Quota 5-Year Review recommended that the fishing year be changed to January 1 - December 31 to ease the administration of cost recovery in the golden tilefish IFQ fishery (which is calculated on a calendar year basis; January 1 - December 31). Unifying the allocation usage monitoring and the cost recovery time periods to a single 12-month period would reduce administrative burden and potentially decrease administrative costs recovered from the industry. In addition, the calendar year is the time period upon which stock assessments are based. Lastly, industry members have indicated that ending the fishing year in December, rather than October, will create more stability in harvesting their full allocation. October can be a very stormy, and unpredictable month with fish on the move in response to weather conditions.

In addition to the specification process related issues described above, this framework will set annual specification measures for the 2023 and 2024 fishing seasons. The 2021 management track assessment will be used to revise the interim 2022 specifications and set specifications for the 2023 and 2024 fishing seasons. The purpose of this action (setting specifications) is to implement commercial quotas for the golden tilefish fishery in 20232024 that are necessary to prevent overfishing and ensure annual catch limits (ACLs) are not exceeded.

The Council will submit this framework to NOAA Fisheries for approval and implementation. NOAA Fisheries will publish a proposed rule along with this Environmental Assessment (EA) for public comment. After considering public comments
on the proposed rule, NOAA Fisheries will publish a final rule with implementation details, if the action is approved by NOAA Fisheries.

This document describes all evaluated management alternatives and their expected impacts on five aspects of the affected environment, which are defined as valued ecosystem components (VECs; sections 6.0 and 7.0). Summaries of the preferred alternative and expected impacts are below. A detailed description and discussion of the expected environmental impacts resulting from each of the alternatives, as well as any cumulative impacts, considered in this document are provided in section 7.0. For purposes of impact evaluation, No action (Status Quo) alternatives are compared to the current baseline condition, while all other alternatives are compared to the No action/Status Quo alternative. This framework document was developed in accordance with all applicable laws and statutes as described in section 8.0.

## Summary of Alternatives

The multi-year specifications framework (Framework \#X) alternatives are summarized in Box ES-1 to Box ES-3 and described in more detail in section 5.0.

Box ES-1. Summary of the multi-year specification alternatives.

| Alternatives | Summary of Alternatives |
| :---: | :--- |
| Alternative 1 <br> (No Action/Status Quo) | No changes to the process to set golden tilefish management specifications <br> for up to 3 years. |
| Alternative 2 <br> (Specifications to be set for <br> maximum number of years <br> needed to be consistent <br> with the Northeast <br> Regional Coordinating <br> Council (NRCC)-approved <br> stock assessment schedule) | Specifications could be set for the maximum number of years needed to be <br> consistent with the NRCC-approved stock assessment schedule. This <br> alternative would provide additional flexibility as specifications could be <br> set to cover the time period until a new golden tilefish assessment is <br> produced. |

Box ES-2. Summary of the fishing year alternatives.

| Alternatives | Summary of Alternatives |
| :---: | :--- |
| Alternative 1 <br> (No Action/Status Quo) | No changes to the current golden tilefish fishing year. The golden tilefish <br> fishing year will continue to be November 1-October 31. |
| Alternative 2 <br> (The golden tilefish fishing <br> year is the 12-month period <br> beginning with January 1, <br> annually) | The golden tilefish fishing year is the twelve (12) month period beginning <br> January 1, annually. Therefore, the fishing year is from January 1- <br> December 31. |

Box ES-3. Summary of the 2023-2024 golden tilefish quota alternatives.

| Alternatives | Commercial <br> Component | 2023 <br> Quotas | 2024 <br> Quotas |
| :---: | :--- | :---: | :---: |
| Alternative 1 <br> (Status Quo/No Action) | IFQ vessels | $1,554,038$ | $1,554,038$ |
|  | Incidental vessels | 72,397 | 72,397 |
| Alternative 2 <br> (TBD, for example, allowing quotas <br> to change from year to year, such as <br> time varying quotas) | IFQ vessels | Incidental vessels | TBD |
|  | TBD | TBD |  |
| Alternative 3 | IFQ vessels | TBD | TBD |
| (TBD, for example, average quotas <br> for the 2023-2024 period) | Incidental vessels | TBD | TBD |
|  |  | TBD |  |

TBD $=$ To be determined. The results of the 2021 golden tilefish management track assessment and projections to calculate commercial quotas will be available for management use in July 2021. Therefore, specific quota alternatives (quota values) will not be made available until the second framework meeting.

## Summary of Impacts

The following section presents a qualitative summary of expected impacts alternatives under consideration (Boxes ES-1 to ES3). For purposes of impact evaluation, status quo alternatives are compared to the current conditions, while all other alternatives are compared to the status quo alternative. The expected impacts of the alternatives in this document on the VECs are summarized in Box ES-4 to Box ES-6 and described in more detail in section 7.1 and 7.2.

## Multi-Year Specification Alternatives

None of the multi-year specification alternatives are expected to have no impact on the prosecution of the golden tilefish fishery, including landings levels, distribution of fishing effort, or fishing methods and practices.

Under alternative 1 (no action/status quo), there would be no changes to the process to set golden tilefish management specifications for up to 3 years. The no action alternative is expected to have no impact (direct or indirect) on the target species (managed species) when compared to the current condition of the stock. Alternative 2 would change the process the annual multi-year specifications are set; it would simply change the number of years (time period) for which those measures could be set. Under alternative 2 , specifications could be set for up to the maximum number of years needed to be consistent with the NRCC-approved stock assessment schedule. Both, alternatives are expected to have no impact (direct or indirect) on the target species (managed species) when compared to the current condition of the stock.

The no action alternative and the action that would only change the process the annual multi-year specifications are set are expected to have no impact (direct or indirect) on the physical habitat when compared to the current conditions.

The no action alternative and the action that would only change the process the annual multi-year specifications are set are expected to have no impact (direct or indirect) on the protected resources when compared to the current conditions.

The no action alternative and the action that would only change the process the annual multi-year specifications are set are expected to have no impact (direct or indirect) on the human communities when compared to the current conditions.

Although there are no impacts on the VECs, alternative 2 would provide for some administrative efficiencies by reducing the need to create and implement multiple specification documents to set management measures for the fishery between stock assessments; thus, improving the management process (i.e., efficient use of Council and NOAA staff time and reducing management costs). It is possible that this could in turn decrease administrative burden and the IFQ cost recovery fee.

## Fishing Year Timing Alternatives

None of the fishing year alternatives are expected to have no impact on the prosecution of the golden tilefish fishery, including landings levels, distribution of fishing effort, or fishing methods and practices.

Under alternative 1 (no action/status quo), there would be no changes to current golden tilefish fishing year. The golden tilefish fishing year will continue to be November 1 October 31. The no action alternative is expected to have no impact (direct or indirect) on the target species (managed species) when compared to the current condition of the stock.

Alternative 2 would change the process by which the current fishing year timing is set. Under alternative 2, the golden tilefish fishing year is the 12 -month period beginning with January 1, annually. Therefore, the fishing year is from January 1 - December 31. Alternative 2 would result in quota specifications for the January 1 - December 31 periods, to be aligned the with the 12 month cycle for which stock projections are made (January 1 - December 31); thus, potentially reducing uncertainty in the long-term. ${ }^{1}$ This is expected to result in impacts to the stock that range from no impacts to slightly positive impacts when compared to the current conditions.

The no action alternative and the action that would only change the process by which the current fishing year timing is set are expected to have no impact (direct or indirect) on the physical habitat when compared to the current conditions.

The no action alternative and the action that would only change the process by which the current fishing year timing is set are specified are expected to have no impact (direct or indirect) on the protected resources when compared to the current conditions.

Under alternative 1 (no action/status quo), there would be no changes to current golden tilefish fishing year. The golden tilefish fishing year will continue to be November 1 October 31. The no action alternative is expected to have no impact (direct or indirect) on the human communities when compared to the current conditions. Alternative 2 would align the fishing year with cost recovery calculations associated with managing the IFQ system. This could in turn decrease administrative burden and the IFQ cost recovery fee. In addition, industry members have indicated that aligning the fishing year with the calendar year will create more stability in harvesting their full allocation. This is expected to result in impacts to the human communities that range from no impacts to slightly positive impacts when compared to the current conditions. When comparing across both alternative, alternative 2 is expected to result in impacts to human communities that range from no impacts to slightly positive impacts when compared to status quo measure (alternative 1).

## 2022-2023 Golden Tilefish Fishery Specifications (Catch, Landings Limits, and Quotas)

This section to be completed prior to the second required framework meeting.
Note: The results of the 2021 golden tilefish management track assessment and projections to calculate commercial quotas will be available for management use in July 2021. Therefore, specific quota alternatives (quota values) will not be made available until the second framework meeting.

[^34]Box ES-4. Overall qualitative summary of the expected impacts of multi-year specification alternatives considered in this document. A minus sign (-) signifies an expected negative impact, a plus $\operatorname{sign}(+)$ signifies an expected positive impact, and zero ( 0 ) is used to indicate a null impact. A "sl" in front of a sign is used to convey a minor effect, such as slight positive (sl+).

| Alternatives | Biological | Physical <br> Habitat | Protected <br> Resources | Human <br> Communitie <br> s |
| :---: | :---: | :---: | :---: | :---: |
| Alternative 1 <br> (No Action/Status Quo) | 0 | 0 | 0 | 0 |
| Alternative 2 <br> (Specifications to be set for maximum <br> number of years needed to be consistent <br> with the Northeast Regional Coordinating <br> Council (NRCC)-approved stock <br> assessment schedule) | 0 | 0 | 0 | 0 <br> However, <br> some <br> administra- <br> tive |
| efficiencies |  |  |  |  |
| would result. |  |  |  |  |

Box ES-5. Overall qualitative summary of the expected impacts of fishing year alternatives considered in this document. A minus sign (-) signifies an expected negative impact, a plus sign (+) signifies an expected positive impact, and zero (0) is used to indicate a null impact. A "sl" in front of a sign is used to convey a minor effect, such as slight positive (sl+).

| Alternatives | Biological | Physical <br> Habitat | Protected <br> Resources | Human <br> Communitie <br> s |
| :---: | :---: | :---: | :---: | :---: |
| Alternative 1 <br> (No Action/Status Quo) | 0 | 0 | 0 | 0 |
| Alternative 2 <br> (The golden tilefish fishing year is the 12- <br> month period beginning with January 1, <br> annually) | 0 to sl+ | 0 | 0 | 0 to sl+ |

Box ES-2. Overall qualitative summary of the expected impacts of various golden tilefish quota alternatives considered in this document. A minus sign (-) signifies an expected negative impact, a plus sign $(+)$ signifies an expected positive impact, and zero $(0)$ is used to indicate a null impact. A "sl" in front of a sign is used to convey a minor effect, such as slight positive (sl+).

| Alternatives | Year | Biological | Physical <br> Habitat | Protected <br> Resources | Human <br> Communities |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Alternative 1 <br> (Preferred: SSC and MC <br> Recommended) | $\mathbf{2 0 2 2 - 2 0 2 3}$ | TBD | TBD | TBD | TBD |
| Alternative 2 <br> (TBD, for example, allowing <br> quotas to change from year to <br> year, e.g., varying quotas) | $\mathbf{2 0 2 2 - 2 0 2 3}$ | TBD | TBD | TBD | TBD |
| Alternative 3 <br> (TBD, for example, average <br> quotas for the 2023-2024 <br> period) | $\mathbf{2 0 2 2 - 2 0 2 3}$ | TBD | TBD | TBD | TBD |

TBD $=$ To be determined. The results of the 2021 golden tilefish management track assessment and projections to calculate commercial quotas will be available in July 2021. Therefore, specific quota alternatives (quota values) will not be made available until the second framework meeting.

## Cumulative Impacts

This section to be completed prior to the second required framework meeting.

## Concussions

This section to be completed prior to the second required framework meeting.

### 2.0 LIST OF ACRONYMS

| ABC | Acceptable Biological Catch |
| :--- | :--- |
| ACL | Annual Catch Limit |
| ACT | Annual Catch Target |
| CEQ | Council on Environmental Quality |
| CPUE | Catch Per Unit Effort |
| CFR | Code of Federal Regulations |
| CZMA | Coastal Zone Management Act |
| EA | Environmental Assessment |
| EO | Executive Order |
| EEZ | Exclusive Economic Zone |
| EFH | Essential Fish Habitat |
| EO | Executive Order |
| ESA | Endangered Species Act of 1973 |
| F | Fishing Mortality Rate |
| FR | Federal Register |
| FMP | Fishery Management Plan |
| IFQ | Individual Fishing Quota |
| RFA | Regulatory Flexibility Act |
| M | Natural Mortality Rate |
| MAFMC | Mid-Atlantic Fishery Management Council |
| MMPA | Marine Mammal Protection Act |
| MRFSS | Marine Recreational Fisheries Statistics Survey |
| MSFCMA | Magnuson-Stevens Fishery Conservation and Management Act (or MSA) |
| MSY | Maximum Sustainable Yield |
| mt | metric tons |
| NAO | NOAA Administrative Order |
| NEFSC | Northeast Fisheries Science Center |
| NEPA | National Environmental Policy Act |
| NMFS | National Marine Fisheries Service |
| NOAA | National Oceanic and Atmospheric Administration |
| OFL | Overfishing Limit |
| OY | Optimal Yield |
| PRA | Paperwork Reduction Act |
| RIR | Regulatory Impact Review |
| RFA | Regulatory Flexibility Act |
| SARC | Stock Assessment Review Committee |
| SAW | Stock Assessment Workshop |
| SSB | Spawning Stock Biomass |
| SSC | Scientific and Statistical Committee |
| SFA | Sustainable Fisheries Act |
| TAL | Total Allowable Landings |
| US | United States |
| VEC | Valued Ecosystem Component |
| VPA | Virtual Population Analysis |
| VTR | Vessel Trip Report |
|  |  |

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## ENVIRONMENTAL ASSESSMENT

### 4.0 PURPOSE AND NEED FOR ACTION

The purpose of this framework is to address issues related to the administration of the golden tilefish fishery, while continuing to achieve the management objectives of the FMP. The need for this framework relates to a desire by the Council to optimize the management system for the golden tilefish fishery.

The FMP, which initiated the management for golden tilefish (Lopholatilus chamaeleonticeps), became effective November 1, 2001 (66 FR 49136; September 26, 2001) and included management and administrative measures to ensure effective management of the tilefish resource. Amendment 1 to the FMP implemented an Individual Fishing Quota in the directed golden tilefish fishery (74 FR 42580; August 24, 2009). It also implemented new reporting requirements and gear modifications, addressed recreational fishing issues, and reviewed the EFH components of the FMP, including implementing gear restricted areas to prevent bottom trawling in habitat areas of particular concern. Amendment 6 to the FMP incorporated blueline tilefish (Caulolatilus microps) as a managed species in the FMP and stablished blueline tilefish management measures, including, annual catch limit process, sector allocations, possession limits, fishing season, permitting, and reporting requirements (82 FR 52851; November 15, 2017). The management regime and objectives of the fishery are detailed in the FMP, including any subsequent amendments, and are available at: http://www.mafmc.org.

The need and purpose of this framework are summarized in Box 4.1. The full range of management issues addressed in this framework to better achieve the existing FMP management objectives, are described under the headings below.

| Box 4.1. Framework \#X Purpose and Need. |  |
| :--- | :--- |
| NEED | CORRESPONDING PURPOSE |
| 1. Improve timing of multi-year <br> specifications. | Implement multi-year specification <br> measures to provide additional flexibility <br> to the quota setting process. |
| 2. Modify the fishing year. | Implement a fishing year that improves <br> the administration the tilefish IFQ <br> program, and aligns the quota setting <br> process with stock assessment <br> results/projections. |
| 3. Prevent overfishing and ensure annual <br> catch limits (ACLs) are not exceeded. <br> Achieve maximum sustainable yield in <br> the golden tilefish fishery. | Implement measures to specify levels of <br> harvest and catch of golden tilefish <br> consistent with the Magnuson-Stevens Act <br> and the objectives of the FMP, including <br> to prevent overfishing and set annual <br> fishery specifications. |

At the October 2020 Council meeting, the Council approved a final list of recommendations in response to Executive Order (EO) 13921 (Promoting American Seafood Competitiveness and Economic Growth). The purpose of this EO is, "to strengthen the American economy; improve the competitiveness of American industry; ensure food security; provide environmentally safe and sustainable seafood; support American workers; ensure coordinated, predictable, and transparent Federal actions; and remove unnecessary regulatory burdens." Section 4 of the EO requires each Regional Fishery Management Council to submit to the Secretary of Commerce a prioritized list of recommended actions to reduce the burden on domestic fishing and to increase production within sustainable fisheries, including a proposal for initiating action by May 6, 2021. The Council approved 18 recommendations which cover a broad range of topics. For golden tilefish, the Council added a new initiative to the Council's 2021 Implementation Plan to address the objectives of the EO: "Initiate a framework to allow golden tilefish specifications to be set for more than 3 years."

Golden tilefish regulations allow multi-year annual specifications to be set for up to 3 years at a time (CFR §648.290 and 648.291). Therefore, current regulations allow, but do not obligate the Council to specify commercial quotas and other management measure for up to 3 years. Multi-year regulations have been implemented for all fisheries managed by the Mid-Atlantic Fishery Management Council (MAFMC or Council) to relieve administrative demands on the Council and NMFS imposed by annual specification requirements. Longer term specifications provide greater regulatory consistency and predictability to the fishing sectors. This action would modify the annual specifications process, so that they could be set for the maximum number of years needed to be consistent with the Northeast Region Coordinating Council (NRCC) approved stock assessment schedule. As a result, this action would provide additional flexibility as specifications could be set to cover the time period until a new golden tilefish stock assessment is produced.

## Fishing Year Timing

Current regulations define the golden tilefish fishing year as the 12-month period beginning with November 1, annually (CFR §648.292). The current fishing year was initially established to correspond with the implementation date of the Fishery Management Plan (MAFMC 2000; 66 FR 49136, September 26, 2001). The final rule that initiated the Tilefish FMP became effective November 1, 2001. The Golden Tilefish Individual Fishing Quota 5-Year Review contains the following recommendation regarding changing the fishing year:

> The golden tilefish fishing year, under which IFQ [Individual Fishing Quota] allocation usage is monitored, extends from November 1 - October 31 of the following year. However, costs are recovered in the Golden Tilefish IFQ fishery on a calendaryear basis. This discrepancy has, at times, caused some difficulties in the administration of the cost recovery program, as the cost recovery year traverses two fishing years, and vice versa. To ease the administration of the cost recovery in the

Golden Tilefish IFQ fishery, unifying the allocation usage monitoring and the cost recovery time periods to a single 12-month period should be considered. The calendar year is strongly recommended as this is also the time period upon which stock assessments are based. Changing the golden tilefish fishing year could potentially decrease administrative costs recovered from the industry.

Furthermore, industry members have indicated that ending the fishing year in December, rather than October, will create more stability in harvesting their full allocation. October can be a very stormy, and unpredictable month with fish on the move in response to weather conditions.

## Fishery Specifications (Catch, Landings Limits, and Quotas)

In addition to the two process related issues described above, this framework will set specifications for the 2023 and 2024 fishing seasons. The Council implemented interim specifications for 2022 due to the recently NRCC-approved new stock assessment process (MAFMC 2020). More specifically, under the new NRCC assessment schedule, the next management track assessment update for golden tilefish is currently scheduled for 2021. Therefore, in 2020, the Council specified management measures for 2021 and 2022 because of potential timing constraints with the 2021 management track assessment. If a peer review is needed for the 2021 management track assessment (peer review scheduled for June 2021), the Council will likely have to take final action in August of 2021. This may not provide adequate administrative time to have specifications in place for the 2022 fishing year which starts November 1, 2021. The 2021 management track assessment would then be used to revise the interim 2022 specifications and set specifications for the 2023 and 2024 fishing seasons. The Council approved catch and landings limits for 2021 are shown in Table 1. The Council adopted status quo catch and landings limits for 2021. Following approval of the proposed 2021-2022 specifications, the Council approved a motion to request NMFS take emergency action. The Council approved the following motion:

Move that given the COVID-19 national emergency, to request the service to consider an emergency action to allow a 5\% rollover of unused IFQ 2020 quota allocation for the golden tilefish fishing year November 1, 2020 thru October 31, 2021.

NMFS has interpreted this request to mean each IFQ quota shareholder could carry over up to $5 \%$ of their unused, initial 2020 IFQ quota pounds into 2021. To assess the maximum potential impact, the full $5 \%$ of the 2020 IFQ TAL (total allowable landings) is assumed to be carried over into 2021. This would result in a maximum potential IFQ TAL for 2021 of 1.631 million pounds $(740 \mathrm{mt})$. However, it is expected that actual carryover would end up being less than this full amount as not all quota shareholders will carryover the full $5 \%$ allowance. Even if the overall IFQ landings are more than $5 \%$ below the TAL some quota shareholders may harvest more than $95 \%$ of their initial quota pounds and would not be eligible for the full $5 \%$ carryover, while those that harvested less than $95 \%$ of their 2020 quota pounds would be limited to only $5 \%$ carryover.

Typically, the Council uses specifications packages to implement commercial quotas and other management measures that are necessary to prevent overfishing and ensure annual catch limits (ACLs) are not exceeded. However, due to the development of the framework document to address the multi-year annual specifications process and fishing year issues described above, this framework document will also address annual specifications to make revisions more efficient. To facilitate the transition from the current fishing year (November 1 to October 31) to January 1 to December 31, the Council will have to revise the 2022 (interim) regulations (starting on November 1, 2021 and ending on October 31, 2022). More specifically, the Council will have to set 2022 specifications from November 1,2021 to December 31, 2022. This is a one-time only adjustment to bridge the gap as a result of the change to the current fishing year. Then, for 2023 and 2024, the Council would implement specifications starting on January 1 and ending in December 31.

The 2021 golden tilefish management track assessment results and stock projections to calculate commercial quotas will be available in July 2021. Therefore, specific quota alternatives (quota values) will not be made available until the second framework meeting.

Table 1. Current (2021) catch and landings limits compared to the proposed 2022 (interim) specifications.

| Specifications | $\begin{gathered} 2021 \\ \text { (Current)* } \end{gathered}$ | 2021 IFQ <br> TAL w/ Max <br> Carryover** | $\begin{gathered} 2022 \\ \text { (interim) } \end{gathered}$ | Basis |
| :---: | :---: | :---: | :---: | :---: |
| ABC | $\begin{gathered} 1.636 \mathrm{~m} \mathrm{lb} \\ (742 \mathrm{mt}) \end{gathered}$ | - | $\begin{aligned} & 1.636 \mathrm{~m} \mathrm{lb} \\ & (742 \mathrm{mt}) \end{aligned}$ | SSC recommendation, based on data update, recent fishing trends, and scheduled 2021 management track assessment update that will be used to revise 2022 interim specifications |
| ACL | $\begin{gathered} 1.636 \mathrm{~m} \mathrm{lb} \\ (742 \mathrm{mt}) \end{gathered}$ | - | $\begin{gathered} 1.636 \mathrm{~m} \mathrm{lb} \\ (742 \mathrm{mt}) \\ \hline \end{gathered}$ | $\mathrm{ABC}=\mathrm{ACL}$ |
| Management Uncertainty | 0 | - | 0 | Derived by Monitoring Committee (MC) |
| IFQ ACT | $\begin{gathered} 1.554 \mathrm{~m} \mathrm{lb} \\ (705 \mathrm{mt}) \end{gathered}$ |  | $\begin{gathered} 1.554 \mathrm{~m} \mathrm{lb} \\ (705 \mathrm{mt}) \\ \hline \end{gathered}$ | 95\% ACL |
| Incidental ACT | $\begin{gathered} 0.082 \mathrm{~m} \mathrm{lb} \\ (37 \mathrm{mt}) \\ \hline \end{gathered}$ | - | $\begin{gathered} 0.082 \mathrm{~m} \mathrm{lb} \\ (37 \mathrm{mt}) \\ \hline \end{gathered}$ | 5\% ACL |
| IFQ Discards | 0 | - | 0 | Discards in the IFQ fishery are prohibited |
| Incidental Discards | $\begin{gathered} 0.011 \mathrm{~m} \mathrm{lb} \\ (5 \mathrm{mt}) \\ \hline \end{gathered}$ | - | $\begin{gathered} 0.011 \mathrm{~m} \mathrm{lb} \\ (5 \mathrm{mt}) \\ \hline \end{gathered}$ | Avg. discard (2015-2019) mostly sm/lg mesh OT and Gillnet gear. NEFSC |
| IFQ TAL | $\begin{gathered} 1.554 \mathrm{~m} \mathrm{lb} \\ (705 \mathrm{mt}) \\ \hline \end{gathered}$ | $\begin{gathered} 1.631 \mathrm{~m} \mathrm{lb} \\ (740 \mathrm{mt}) \end{gathered}$ | $\begin{gathered} 1.554 \mathrm{~m} \mathrm{lb} \\ (705 \mathrm{mt}) \\ \hline \end{gathered}$ | IFQ ACT - IFQ Discards |
| Incidental TAL | $\begin{gathered} 0.070 \mathrm{~m} \mathrm{lb} \\ (32 \mathrm{mt}) \\ \hline \end{gathered}$ | - | $\begin{gathered} 0.070 \mathrm{~m} \mathrm{lb} \\ (32 \mathrm{mt}) \\ \hline \end{gathered}$ | Incidental ACT - Incidental Discards |

*SSC recommendations are made in metric tons ( mt ) and thus, the management measures are developed using mt . When values are converted to millions of pounds $(\mathrm{Mlb})$ the numbers may change due to rounding. The conversion factor used is $1 \mathrm{mt}=2,204.6226$ pounds. $* *$ Only the IFQ TAL would be affected by the requested emergency carryover. All other specifications would remain at proposed 2021 values.
[Describe SSC/MC recommendations/actions - This section to be completed prior to the second required framework meeting.]

This Environmental Assessment (EA) examines the impacts of each proposed action on the human environment. The aspects of the human environment that are likely to be directly or indirectly affected by the actions proposed in this document are described as valued ecosystem components (VECs; Beanlands and Duinker 1984). These VECs comprise the affected environment and are specifically defined as the managed resources (golden tilefish) and any non-target species; physical habitat, including EFH for the managed resource and non-target species; Endangered Species Act (ESA) listed and Marine Mammal Protection Act (MMPA) protected species; and any human communities (social and economic aspects of the environment). The impacts of the alternatives are evaluated with respect to these VECs.

A full description of each alternative and a discussion of a no action/status quo alternative are given in section 5.0. The Council-preferred alternatives has not yet been specified.

### 4.1 Management Objectives

The overall goal of the FMP is to rebuild tilefish so that the optimum yield can be obtained from this resource. To meet the overall goal, the following objectives are adopted:

1. Prevent overfishing and rebuild the resource to the biomass that would support MSY.
2. Prevent overcapitalization and limit new entrants.
3. Identify and describe essential tilefish habitat.
4. Collect necessary data to develop, monitor, and assess biological, economic, and social impacts of management measures designed to prevent overfishing and to reduce bycatch of tilefish in all fisheries.

### 5.0 MANAGEMENT ALTERNATIVES

### 5.1 Multi-Year Specifications

### 5.1.1 Alternative 1: No action/Status Quo

Under this no action alternative, there would be no changes to the process to set golden tilefish annual specifications for up to 3 years.

### 5.1.2 Alternative 2: Specifications to be set for maximum number of years needed to be consistent with the Northeast Regional Coordinating Council (NRCC)-approved stock assessment schedule

Under this alternative, annual specifications could be set for the maximum number of years needed to be consistent with the NRCC-approved stock assessment schedule. ${ }^{2}$ This alternative would provide additional flexibility as specifications could be set to cover the time period until a new golden tilefish stock assessment is produced. New specifications of annual catch and landings limits(or other annual specifications measures) would be prepared in the final year of the quota period unless there is a need for interim quota modifications. Council staff would coordinate with Northeast Fisheries Science Center (NEFSC) staff, during the first quarter of each year (during the multi-year specifications period) to assess whether there is any relevant information regarding these fisheries that need to be addressed or used to produce interim quota modifications. The results would be provided to the Council in a memorandum. In the year in which a multi-year annual specifications expire, Council staff would produce a fishery information document and specification recommendation memorandum (as is done for all the Council managed FMPs) to provide to the SSC and the Council. None of the other existing catch and landings limits requirements, accountability measures, reporting requirements or ITQ system management procedures will change under alternative 2.

### 5.2. Fishing Year Timing

### 5.2.1 Alternative 1: No Action/Status Quo

Under this alternative, the fishing year requirements as established in the Tilefish FMP would continue to apply. Current regulations define the golden tilefish fishing year as the 12-month period beginning with November 1, annually (November 1 - October 31).

[^35]5.2.1 Alternative 2: The Golden Tilefish Fishing Year is the 12-Month Period Beginning With January 1, Annually

Under this alternative, the golden tilefish fishing year is the twelve (12) month period beginning January 1, annually. Therefore, the fishing year is from January 1 - December 31.

### 5.3 2023-2024 Fishery Specifications (Catch and Landings Limits)

This section to be completed prior to the second required framework meeting.
[Introductory text and Table(s) with catch and landings limits derivations (OFL, ABC, ACL, ACT, IFQ quota, incidental quota, etc.)].

### 5.3.1 Alternative 1: No Action/Status Quo

Alternative 1 would implement the same catch and landings levels implemented by the Council for the 2022 fishing year for the upcoming fishing years 2023 and 2024. More specifically, the Council adopted an ABC of 1.636 million pounds ( 742 mt ). The Council also adopted the $\mathrm{ABC}=\mathrm{ACL}$. After considering relevant sources of management uncertainty, 5 percent of the annual catch target (ACT) was allocated to the incidental sector of the fishery and the remaining 95 percent to the individual fishing quota (IFQ) sector. After removing projected incidental discards, the resulting IFQ total allowable landings (TAL) was 1.554 million pounds ( 705 mt ) and the resulting incidental TAL was 0.070 million pounds ( 32 mt ).

### 5.3.2 Alternative 2: To Be Determined (for example, allowing quotas to change from year to year)

Note: The results of the 2021 golden tilefish management track assessment and projections to calculate commercial quotas will be available in July 2021. Therefore, specific quota alternatives (quota values) will not be made available until the second framework meeting.
5.3.3 Alternative 3: To Be Determined (for example, average quotas for the 2023-2024 period)

Note: The results of the 2021 golden tilefish management track assessment and projections to calculate commercial quotas will be available in July 2021. Therefore, specific quota alternatives (quota values) will not be made available until the second framework meeting.

The affected environment consists of those physical, biological, and human components of the environment expected to experience impacts if any of the actions considered in this document were to be implemented. This document focuses on four aspects of the affected environment, which are defined as VECs.

The VECs include:

- Managed species (i.e., golden tilefish) and non-target species
- Physical habitat
- Protected species
- Human communities

The following sections describe the recent condition of the VECs.

### 6.1 Description of the Managed Resource and Non-Target Species

### 6.1.1 Description of the Fisheries

The management unit is all golden tilefish (Lopholatilus chamaeleonticeps) under U.S. jurisdiction in the Atlantic Ocean north of the Virginia/North Carolina border. The commercial fisheries for tilefish are fully described in Amendment 1 to the FMP (MAFMC 2009) and are also outlined by principal port in section 6.4 of that document. Tilefish are primarily caught by bottom longline gear (directed fishery) and otter trawl gear (incidental fisheries for tilefish). An overview of landings for this fishery is provided below. Additional information on the tilefish fishery can be found in Council meeting materials available at: http://www.mafmc.org.

### 6.1.1.1 Basic Biology

Golden tilefish are found along the outer continental shelf and slope from Nova Scotia, Canada to Surinam on the northern coast of South America (Dooley 1978 and Markle et al. 1980) in depths of 250 to 1500 feet. In the southern New England/mid-Atlantic area, tilefish generally occur at depths of 250 to 1200 feet and at temperatures from $48^{\circ} \mathrm{F}$ to $62^{\circ} \mathrm{F}$ or $8.9^{\circ} \mathrm{C}$ to $16.7^{\circ} \mathrm{C}$ (Nelson and Carpenter 1968; Low et al. 1983; Grimes et al. 1986).

Tilefish are shelter seeking and perhaps habitat limited. There are indications that at least some of the population is relatively nonmigratory (Turner 1986). Warme et al. (1977) first reported that tilefish occupied excavations in submarine canyon walls along with a variety of other fishes and invertebrates, and they referred to these areas as "pueblo villages." Valentine et al. (1980) described tilefish use of scour depressions around boulders for shelter. Able et al. (1982) observed tilefish use of vertical burrows in Pleistocene clay substrates in the Hudson Canyon area, and Grimes et al. (1986) found vertical burrows to be the predominant type of shelter used by tilefish in the mid-Atlantic/southern New England region. Able et al. (1982) suggested that sediment type might control the distribution and abundance of the species, and the longline fishery for tilefish in the Hudson Canyon area is primarily restricted to areas with Pleistocene clay substrate (Turner 1986).

Males achieve larger sizes than females, but do not live as long (Turner 1986). The largest male reported by Turner was 44.1 inches at 20 years old, and the largest female was 39 years at 40.2 inches FL (fork length). The oldest fish was a 46 -year old female of 33.5 inches, while the oldest male was 41.3 inches and 29 years.

Nothing is known about the diets and feeding habits of tilefish larvae, but they probably prey on zooplankton. The examination of stomach and intestinal contents by various investigators reveal that tilefish feed on a great variety of food items (Collins 1884, Linton 1901a,b, and Bigelow and Schroeder 1953). Among those items identified by Linton (1901a,b) were several species of crabs, mollusks, annelid worms, polychaetes, sea cucumbers, anemones, tunicates, and fish bones. Bigelow and Schroeder (1953) identified shrimp, sea urchins and several species of fishes in tilefish stomachs. Freeman and Turner (1977) reported examining nearly 150 tilefish ranging in length from 11.5 to 41.5 inches. Crustaceans were the principal food items of tilefish with squat lobster (Munida) and spider crabs (Euprognatha) the most important crustaceans. The authors report that crustaceans were the most important food item regardless of the size of tilefish, but that small tilefish fed more on mollusks and echinoderms than larger tilefish. Tilefish burrows provide habitat for numerous other species of fish and invertebrates (Able et al. 1982 and Grimes et al. 1986) and in this respect, they are similar to "pueblo villages" (Warme et al. 1977).

Able et al. (1982) and Grimes et al. (1986) concluded that a primary function of tilefish burrows was predator avoidance. The NEFSC database only notes goosefish as a predator. While tilefish are sometimes preyed upon by spiny dogfish and conger eels, by far the most important predator of tilefish is other tilefish (Freeman and Turner 1977). It is also probable that large bottom-dwelling sharks of the genus Carcharhinus, especially the dusky and sandbar, prey upon free swimming tilefish.

### 6.1.1.2 Commercial and Recreational Fishing Trends

For the 1970 to 2020 calendar years, golden tilefish landings have ranged from 128 thousand pounds live weight (1970) to 8.7 million pounds (1979). For the 2001 to 2020 period, golden tilefish landings have averaged 1.8 million pounds live weight, ranging from 1.1 (2016) to 2.5 (2004) million pounds. In 2020, commercial golden tilefish landings were 1.4 million pounds live weight (Figure 3).

The principal measure used to manage golden tilefish is monitoring via dealer weighout data that is submitted weekly to the Greater Atlantic Regional Fisheries Office (GARFO). The directed fishery is managed via an IFQ program. If a permanent IFQ allocation is exceeded, including any overage that results from golden tilefish landed by a lessee in excess of the lease amount, the permanent allocation will be reduced by the amount of the overage in the subsequent fishing year. If a permanent IFQ allocation overage is not deducted from the appropriate allocation before the IFQ allocation permit is issued for the subsequent fishing year, a revised IFQ allocation permit reflecting the deduction of the overage will be issued. If the allocation cannot be reduced in the subsequent fishing year because the full allocation had already been landed or transferred, the IFQ allocation permit would indicate a reduced allocation for the amount of the overage in the next fishing year.

The commercial/incidental trip limit (for vessels that possess a Commercial/Incidental Tilefish Permit without an IFQ Allocation Permit) is 500 pounds or 50 percent, by weight, of all fish (including the golden tilefish) onboard the vessel, whichever is less. If the incidental harvest exceeds 5 percent of the TAL for a given fishing year, the incidental trip limit of 500 pounds may be reduced in the following fishing year.

Table 2 summarizes the golden tilefish management measures for the 2005-2022 fishing years. Commercial golden tilefish landings have been below the commercial quota specified each year since the Tilefish FMP was first implemented except for fishing years 2003-2004 (not shown in Table 2), and 2010. In 2003 and 2004, the commercial quota was exceeded by 0.3 ( 16 percent) and 0.6 ( 31 percent) million pounds, respectively. ${ }^{3}$ In 2019 and 2020, 1.4 million pounds ( 96 percent of the quota) and 1.6 million pounds ( 86 percent of the quota) of golden tilefish were landed, respectively.

A small recreational fishery briefly occurred during the mid-1970's, with less than 100,000 pounds landed annually (MAFMC 2001). Subsequent recreational catches have been low for the 1982-2020 period, ranging from zero for most years to approximately 213,000 fish in 2010 according to NMFS recreational statistics. In 2019, approximately 11,000 fish were landed. No landings were reported in 2020. In addition, the 2016 golden tilefish stock assessment update indicates that recreational catches appear to be a minor component of the total removals (Nitschke 2017).

VTR data indicates that the number of golden tilefish kept by party/charter vessels from Maine through Virginia is low, ranging from 81 fish in 1996 to 8,297 fish in 2015. Mean party/charter effort ranged from less than one fish per angler in 1999 throughout 2002 and 2005 to approximately eight fish per angler in 1998, averaging 2.8 fish for the 1996-2020 period.

To improve tilefish management and reporting, GARFO implemented mandatory private recreational permitting and reporting for tilefish anglers in August 2020. This action was approved in late 2017, but with delayed implementation. Outreach materials and webinars were provided by GARFO and the Council leading up to the final rule and will continue to be circulated as these regulations become commonplace.

Under this rule, private recreational vessels (including for-hire operators using their vessels for non-charter, recreational trips) are required to obtain a federal vessel permit to target or retain golden or blueline tilefish north of the Virginia/North Carolina border. These vessel operators would also be required to submit VTRs electronically within 24 hours of returning to port for trips where tilefish were targeted or retained. This permit allows recreational anglers to land both golden and blueline tilefish. For the 2020 fishing year (August - December), 50 fish were reported landed on 4 private recreational trips (with 5 fish discarded). The low landings associated with private anglers may be attributed to the

[^36]short fishing season (as a result of when implementation occurred), this being the first-time recreational anglers are required to report.


Figure 1. Commercial U.S. Golden Tilefish Landings (live weight) from Maine-Virginia, 1970-2020 (calendar year). Source: 1970-1993 Tilefish FMP. 1994-2020 NMFS unpublished dealer data.

Table 2. Summary of management measures and landings for fishing year 2005-2022. ${ }^{\text {a }}$

| Management Measures | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ABC (m lb) | - | - | - | - | - | - | - | - | 2.013 | 2.013 | 1.766 | 1.898 | 1.898 | 1.636 | 1.636 | 1.636 | 1.636 | 1.636 |
| TAL (m lb) | 1.995 | 1.995 | 1.995 | 1.995 | 1.995 | 1.995 | 1.995 | 1.995 | 1.995 | 1.995 | 1.755 | 1.887 | 1.887 | 1.626 | 1.626 | 1.626 | 1.625 | 1.625 |
| Com. quota(m lb) | 1.995 | 1.995 | 1.995 | 1.995 | 1.995 | 1.995 | 1.995 | 1.995 | 1.995 | 1.995 | 1.755 | 1.887 | 1.887 | 1.626 | 1.626 | 1.626 | $\begin{aligned} & 1.625 / \\ & 1.701 * \end{aligned}$ | 1.625 |
| Com. landings | 1.497 | 1.898 | 1.777 | 1.672 | 1.887 | 1.997 | 1.946 | 1.856 | 1.839 | 1.830 | 1.354 | 1.060 | 1.487 | 1.626 | 1.563 | 1.403 | - | - |
| Com. Overage / underage ( mlb ) | -0.498 | -0.097 | -0.218 | -0.323 | -0.108 | +0.002 | -0.049 | -0.139 | -0.156 | -0.165 | -0.401 | -0.827 | -0.401 | <-0.001 | -0.064 | -0.223 | - | - |
| Incidental trip limit (lb) | 133 | 300 | 300 | 300 | 300 | 300 | 300 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 |
| Rec. possession limit | - | - | - | - | - | $8^{\text {b }}$ | $8^{\text {b }}$ | $8^{\text {b }}$ | $8^{\text {b }}$ | $8^{\text {b }}$ | $8^{\text {b }}$ | $8^{\text {b }}$ | $8^{\text {b }}$ | $8^{\text {b }}$ | $8^{\text {b }}$ | $8^{\text {b }}$ | $8^{\text {b }}$ | $8^{\text {b }}$ |

${ }^{\text {a }}$ Fishing year 2005 (November 1, 2004 - October 31, 2005). ${ }^{\text {b }}$ Eight fish per person per trip. *The Council requested for emergency action to allow unharvested 2020 IFQ pounds to be carried over into the 2021 fishing year, up to 5 percent of the quota shareholders initial 2020 allocation.

### 6.1.2 Description of the Stock (Including Status, Stock Characteristics, and Ecological Relationships)

Reports on stock status, including Stock Assessment Workshop (SAW) reports, and Stock Assessment Review Committee (SARC) reports, and assessment update reports are available online at the Northeast Fisheries Science Center (NEFSC) website: http://www.nefsc.noaa.gov/. The EFH Source Document, which includes details on stock characteristics and ecological relationships, is available at the following website: http://www.nefsc.noaa.gov/nefsc/habitat/efh/.

## Biological Reference Points

The biological reference points for golden tilefish were updated during the 2017 stock assessment update (Nitschke 2017), as a result of a change to the recruitment penalty used in the assessment model (i.e., likelihood constant turned off). ${ }^{4}$ The fishing mortality threshold for golden tilefish is $\mathrm{F}_{38 \%}\left(\right.$ as $\mathrm{F}_{\mathrm{MSY}}$ proxy $)=0.310$, and $\mathrm{SSB}_{38 \%}\left(\mathrm{SSB}_{\text {MSY proxy }}\right)$ is 21 million pounds $(9,492 \mathrm{mt})$.

## Stock Status

The last full assessment update was completed in February 2017. This update indicates that the golden tilefish stock was not overfished and overfishing was not occurring in 2016, relative to the newly updated biological reference points. Fishing mortality in 2016 was estimated at $\mathrm{F}=0.249$; $20 \%$ below the fishing mortality threshold of $\mathrm{F}=0.310$ ( $\mathrm{F}_{\text {MSY proxy }}$ ). SSB in 2016 was estimated at 18.69 million pounds ( $8,479 \mathrm{mt}$ ), and was at $89 \%$ of the biomass target ( $\mathrm{SSB}_{\text {MSY proxy }}$ ).

### 6.1.3 Non-Target Species

The term "bycatch" as defined by the MSA, means fish that are harvested in a fishery but that are not sold or kept for personal use. Bycatch includes the discard of whole fish at sea or elsewhere, including economic and regulatory discards, and fishing mortality due to an encounter with fishing gear that does not result in capture of fish (i.e., unobserved fishing mortality).

According to VTR data, very little ( $0.03 \%$ ) discarding was reported by longline vessels that targeted tilefish for the 2016 through 2020 period (Table 3). In addition, the 2017 stock assessment indicates that "most of the commercial landings are taken by the directed longline fishery," and that tilefish discards in the trawl and longline fishery are negligible (Nitschke 2017).

## Status of Non-Target Species

In this section, the status of the more frequently encountered non-target species that are managed, those that account for 0.1 percent or more of the total catch in the golden tilefish trips, are described here (Table 3).

[^37]Based on the spiny dogfish current biomass reference points and an assessment update considering data through spring of $2018,{ }^{5}$ the stock is not overfished or experiencing overfishing. A benchmark assessment for spiny dogfish is scheduled for 2022. The most recent stock assessment report for smooth dogfish (SEDAR 39) ${ }^{6}$ conducted in 2015 indicates that the stock is not overfished and not subject to overfishing. The most recent benchmark assessment for blueline tilefish was SEDAR 50 (SEDAR 2017). ${ }^{7}$ Genetic work conducted for SEDAR 50 suggests a genetically homogenous population off the entire Atlantic coast yet does not suggest what catch may be appropriate off various parts of the coast. In SEDAR 50, the blueline tilefish stock was split in two, north and south of Cape Hatteras to allow each Council (Mid and South Atlantic) to set their own specifications. The stock south of Cape Hatteras was determined to be not overfished with overfishing not occurring. The assessment did not provide stock status information relevant to the Mid-Atlantic management area due to insufficient data. The other species listed that constitute more than 0.1 percent of the total catch in Table 3 (e.g., conger eel) has not been assessed; therefore, their overfished and overfishing status is unknown.

[^38]Table 3. Catch disposition for directed tilefish trips ${ }^{\text {a }}$, Maine through Virginia, 2016-2020 combined.

| Common Name | Kept lb | species | $\begin{aligned} & \% \\ & \text { total } \end{aligned}$ | Discarded lb | \% species | $\begin{gathered} \% \\ \text { total } \end{gathered}$ | Total lb | Disc: Kept Ratio |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| GOLDEN TILEFISH | 5,627,411 | 100.00\% | 94.90\% | 0 | 0.00\% | 0.00\% | 5,627,411 | 0.00 |
| SPINY DOGFISH | 223,676 | 100.00\% | 3.77\% | 0 | 0.00\% | 0.00\% | 223,676 | 0.00 |
| DOGFISH SMOOTH | 30,292 | 97.43\% | 0.51\% | 800 | 2.57\% | 40.77\% | 31,092 | 0.03 |
| BLUELINE TILEFISH | 16,074 | 100.00\% | 0.27\% | 0 | 0.00\% | 0.00\% | 16,074 | 0.00 |
| CONGER EEL | 14,274 | 96.62\% | 0.24\% | 500 | 3.38\% | 25.48\% | 14,774 | 0.04 |
| YELLOWFIN TUNA | 4,480 | 99.01\% | 0.08\% | 45 | 0.99\% | 2.29\% | 4,525 | 0.01 |
| DOLPHIN FISH | 3,639 | 98.64\% | 0.06\% | 50 | 1.36\% | 2.55\% | 3,689 | 0.01 |
| BLACK BELLIED ROSEFISH | 2,293 | 99.91\% | 0.04\% | 2 | 0.09\% | 0.10\% | 2,295 | 0.00 |
| SILVER HAKE (WHITING) | 1,452 | 100.00\% | 0.02\% | 0 | 0.00\% | 0.00\% | 1,452 | 0.00 |
| WRECKFISH | 896 | 100.00\% | 0.02\% | 0 | 0.00\% | 0.00\% | 896 | 0.00 |
| BIG EYE TUNA | 814 | 100.00\% | 0.01\% | 0 | 0.00\% | 0.00\% | 814 | 0.00 |
| BARRELFISH | 699 | 100.00\% | 0.01\% | 0 | 0.00\% | 0.00\% | 699 | 0.00 |
| RED HAKE | 666 | 57.12\% | 0.01\% | 500 | 42.88\% | 25.48\% | 1,166 | 0.75 |
| MAKO SHORTFIN SHARK | 561 | 100.00\% | 0.01\% | 0 | 0.00\% | 0.00\% | 561 | 0.00 |
| SAND TILEFISH | 506 | 100.00\% | 0.01\% | 0 | 0.00\% | 0.00\% | 506 | 0.00 |
| ANGLER | 429 | 100.00\% | 0.01\% | 0 | 0.00\% | 0.00\% | 429 | 0.00 |
| SKATES OTHER | 378 | 100.00\% | 0.01\% | 0 | 0.00\% | 0.00\% | 378 | 0.00 |
| BLUEFIN TUNA | 251 | 100.00\% | 0.00\% | 0 | 0.00\% | 0.00\% | 251 | 0.00 |
| BLUEFISH | 232 | 100.00\% | 0.00\% | 0 | 0.00\% | 0.00\% | 232 | 0.00 |
| MAKO SHARK | 166 | 100.00\% | 0.00\% | 0 | 0.00\% | 0.00\% | 166 | 0.00 |
| WHITE HAKE | 146 | 100.00\% | 0.00\% | 0 | 0.00\% | 0.00\% | 146 | 0.00 |
| BLACK SEA BASS | 128 | 100.00\% | 0.00\% | 0 | 0.00\% | 0.00\% | 128 | 0.00 |
| ALBACORE TUNA | 110 | 100.00\% | 0.00\% | 0 | 0.00\% | 0.00\% | 110 | 0.00 |
| SWORDFISH | 102 | 100.00\% | 0.00\% | 0 | 0.00\% | 0.00\% | 102 | 0.00 |
| BLACKFIN TUNA | 92 | 100.00\% | 0.00\% | 0 | 0.00\% | 0.00\% | 92 | 0.00 |

Table 3 (continued). Catch disposition for directed tilefish trips ${ }^{\text {a }}$, Maine through Virginia, 20162020 combined.

| Common Name | Kept <br> lb | $\%$ <br> species | $\%$ <br> total | Discarded <br> lb | $\%$ <br> species | $\%$ <br> total | Total <br> b | Disc: Kept <br> Ratio |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SUMMER FLOUNDER | 50 | $100.00 \%$ | $0.00 \%$ | 0 | $0.00 \%$ | $0.00 \%$ | 50 | 0.00 |
| BLACK TIP SHARK | 50 | $100.00 \%$ | $0.00 \%$ | 0 | $0.00 \%$ | $0.00 \%$ | 50 | 0.00 |
| SKIPJACK TUNA | 24 | $100.00 \%$ | $0.00 \%$ | 0 | $0.00 \%$ | $0.00 \%$ | 24 | 0.00 |
| TRIGGERFISH | 20 | $100.00 \%$ | $0.00 \%$ | 0 | $0.00 \%$ | $0.00 \%$ | 20 | 0.00 |
| FISH OTHER | 17 | $100.00 \%$ | $0.00 \%$ | 0 | $0.00 \%$ | $0.00 \%$ | 17 | 0.00 |
| WEAKFISH <br> SQUETEAGUE | $100.00 \%$ | $0.00 \%$ | 0 | $0.00 \%$ | $0.00 \%$ | 16 | 0.00 |  |
| HAGFISH | 0 | $100.00 \%$ | $0.00 \%$ | 0 | $0.00 \%$ | $0.00 \%$ | 5 | 0.00 |
| POLLOCK | 0 | $0.00 \%$ | $0.00 \%$ | 65 | $100.00 \%$ | $3.31 \%$ | 65 | -- |
| ALL SPECIES | $5,929,949$ | $99.97 \%$ | $100.00 \%$ | 1,962 | $0.03 \%$ | $100.00 \%$ | $5,931,911$ | 0.00 |

${ }^{\text {a }}$ Directed trips for tilefish were defined as trips comprising 75 percent or more by weight of tilefish landed.
Number of trips $=491$.

### 6.2 Physical Environment and Essential Fish Habitat

The physical, chemical, biological, and geological components of benthic and pelagic environments are important aspects of habitat for marine species and have implications for reproduction, growth, and survival of marine species. The following sections briefly describe key aspects of the physical habitat which may be impacted by the alternatives considered in this document. This information is largely drawn from Stevenson et al. (2004), unless otherwise noted.

### 6.2.1 Physical Environment

Golden tilefish inhabit the Northeast U.S. Shelf Ecosystem, which has been described as including the area from the Gulf of Maine south to Cape Hatteras, extending from the coast seaward to the edge of the continental shelf, including the slope sea offshore to the Gulf Stream. The northeast shelf ecosystem includes the Gulf of Maine, Georges Bank, the Mid-Atlantic Bight, and the continental slope.

The Gulf of Maine is an enclosed coastal sea, characterized by relatively cold waters and deep basins, with a patchwork of various sediment types.

Georges Bank is a relatively shallow coastal plateau that slopes gently from north to south and has steep submarine canyons on its eastern and southeastern edge. It is characterized by highly productive, well-mixed waters and strong currents.

The Mid-Atlantic Bight is comprised of the sandy, relatively flat, gently sloping continental shelf from southern New England to Cape Hatteras, North Carolina.

The continental slope begins at the continental shelf break and continues eastward with increasing depth until it becomes the continental rise. It is homogenous, with exceptions at the shelf break, some of the canyons, the Hudson Shelf Valley, and in areas of glacially rafted hard bottom. The continental shelf in this region was shaped largely by sea level fluctuations caused by past ice ages. The shelf's basic morphology and sediments derive from the retreat of the last ice sheet and the subsequent rise in sea level. Currents and waves have since modified this basic structure.

Shelf and slope waters of the Mid-Atlantic Bight have a slow southwestward flow that is occasionally interrupted by warm core rings or meanders from the Gulf Stream. On average, shelf water moves parallel to bathymetry isobars at speeds of $5-10 \mathrm{~cm} / \mathrm{s}(2-4 \mathrm{in} / \mathrm{s})$ at the surface and 2 $\mathrm{cm} / \mathrm{s}$ ( $1 \mathrm{in} / \mathrm{s}$ ) or less at the bottom. Storm events can cause much more energetic variations in flow. Tidal currents on the inner shelf have a higher flow rate of $20 \mathrm{~cm} / \mathrm{s}(8 \mathrm{in} / \mathrm{s})$ that increases to 100 $\mathrm{cm} / \mathrm{s}(39 \mathrm{in} / \mathrm{s})$ near inlets.

The shelf slopes gently from shore out to between 100 and 200 km ( 62 and 124 miles) offshore where it transforms to the slope (100-200 m water depth or $328-656 \mathrm{ft}$ ) at the shelf break. Numerous canyons incise the slope, and some cut up onto the shelf itself. The primary morphological features of the shelf include shelf valleys and channels, shoal massifs, scarps, and sand ridges and swales. Most of these structures are relic except for some sand ridges and smaller sand-formed features. Shelf valleys and slope canyons were formed by rivers of glacier outwash that deposited sediments on the outer shelf edge as they entered the ocean. Most valleys cut about $10 \mathrm{~m}(33 \mathrm{ft})$ into the shelf; however, the Hudson Shelf Valley is about 35 m ( 115 ft ) deep. The valleys were partially filled as the glacier melted and retreated across the shelf. The glacier also left behind a lengthy scarp near the shelf break from Chesapeake Bay north to the eastern end of Long Island. Shoal retreat massifs were produced by extensive deposition at a cape or estuary mouth. Massifs were also formed as estuaries retreated across the shelf.

Some sand ridges are more modern in origin than the shelf's glaciated morphology. Their formation is not well understood; however, they appear to develop from the sediments that erode from the shore face. They maintain their shape, so it is assumed that they are in equilibrium with modern current and storm regimes. They are usually grouped, with heights of about $10 \mathrm{~m}(33 \mathrm{ft})$, lengths of $10-50 \mathrm{~km}$ ( $6-31$ miles) and spacing of 2 km ( 1 mile ). Ridges are usually oriented at a slight angle towards shore, running in length from northeast to southwest. The seaward face usually has the steepest slope. Sand ridges are often covered with smaller similar forms such as sand waves, megaripples, and ripples. Swales occur between sand ridges. Since ridges are higher than the adjacent swales, they are exposed to more energy from water currents and experience more sediment mobility than swales. Ridges tend to contain less fine sand, silt and clay while relatively sheltered swales contain more of the finer particles. Swales have greater benthic macrofaunal density, species richness and biomass, due in part to the increased abundance of detrital food and the less physically rigorous conditions.

Sand waves are usually found in patches of 5-10 with heights of about $2 \mathrm{~m}(7 \mathrm{ft})$, lengths of 50$100 \mathrm{~m}(164-328 \mathrm{ft})$ and $1-2 \mathrm{~km}$ ( $0.6-1$ mile) between patches. Sand waves are primarily found on the inner shelf, and often observed on sides of sand ridges. They may remain intact over several seasons. Megaripples occur on sand waves or separately on the inner or central shelf. During the winter storm season, they may cover as much as 15 percent of the inner shelf. They tend to form
in large patches and usually have lengths of 3-5 m with heights of $0.5-1 \mathrm{~m}$. Megaripples tend to survive for less than a season. They can form during a storm and reshape the upper $50-100 \mathrm{~cm}$ (2039 in ) of the sediments within a few hours. Ripples are also found everywhere on the shelf and appear or disappear within hours or days, depending upon storms and currents. Ripples usually have lengths of about $1-150 \mathrm{~cm}(0.4-59 \mathrm{in})$ and heights of a few centimeters.

Sediments are uniformly distributed over the shelf in this region. A sheet of sand and gravel varying in thickness from $0-10 \mathrm{~m}(0-33 \mathrm{ft})$ covers most of the shelf. The mean bottom flow from the constant southwesterly current is not fast enough to move sand, so sediment transport must be episodic. Net sediment movement is in the same southwesterly direction as the current. The sands are mostly medium to coarse grains, with finer sand in the Hudson Shelf Valley and on the outer shelf. Mud is rare over most of the shelf but is common in the Hudson Shelf Valley.

Occasionally relic estuarine mud deposits are re-exposed in the swales between sand ridges. Fine sediment content increases rapidly at the shelf break, which is sometimes called the "mud line," and sediments are $70-100$ percent fine on the slope. On the slope, silty sand, silt, and clay predominate (Stevenson et al. 2004).

Greene et al. (2010) identified and described Ecological Marine Units (EMUs) in New England and the Mid-Atlantic based on sediment type, seabed form (a combination of slope and relative depth), and benthic organisms. According to this classification scheme, the sediment composition off New England and the Mid-Atlantic is about 68 percent sand, 26 percent gravel, and 6 percent silt/mud. The seafloor is classified as about 52 percent flat, 26 percent depression, 19 percent slope, and 3 percent steep (Table 4).

Artificial reefs are another significant Mid-Atlantic habitat. These localized areas of hard structure were formed by shipwrecks, lost cargoes, disposed solid materials, shoreline jetties and groins, submerged pipelines, cables, and other materials (Steimle and Zetlin 2000). While some of these materials were deposited specifically for use as fish habitat, most have an alternative primary purpose; however, they have all become an integral part of the coastal and shelf ecosystem. In general, reefs are important for attachment sites, shelter, and food for many species, and fish predators such as tunas may be attracted by prey aggregations or may be behaviorally attracted to the reef structure.

Like all the world's oceans, the western North Atlantic is experiencing changes to the physical environment as a result of global climate change. These changes include warming temperatures; sea level rise; ocean acidification; changes in stream flow, ocean circulation, and sediment deposition; and increased frequency, intensity, and duration of extreme climate events. These changes in physical habitat can impact the metabolic rate and other biological processes of marine species. As such, these changes have implications for the distribution and productivity of many marine species. Several studies demonstrate that the distribution and productivity of several species in the Mid-Atlantic have changed over time, likely because of changes in physical habitat conditions such as temperature (e.g., Weinberg 2005, Lucey and Nye 2010, Nye et al. 2011, Pinsky et al. 2013, Gaichas et al. 2015).

Table 4. Composition of EMUs off New England and the Mid-Atlantic (Greene et al. 2010). EMUs which account for less than $1 \%$ of the surface area of these regions are not shown.

| Ecological Marine Unit | Percent Coverage |
| :--- | :---: |
| High Flat Sand | $13 \%$ |
| Moderate Flat Sand | $10 \%$ |
| High Flat Gravel | $8 \%$ |
| Side Slope Sand | $6 \%$ |
| Somewhat Deep Flat Sand | $5 \%$ |
| Low Slope Sand | $5 \%$ |
| Moderate Depression Sand | $4 \%$ |
| Very Shallow Flat Sand | $4 \%$ |
| Side Slope Silt/Mud | $4 \%$ |
| Moderate Flat Gravel | $4 \%$ |
| Deeper Depression Sand | $4 \%$ |
| Shallow Depression Sand | $3 \%$ |
| Very Shallow Depression Sand | $3 \%$ |
| Deeper Depression Gravel | $3 \%$ |
| Shallow Flat Sand | $3 \%$ |
| Steep Sand | $3 \%$ |
| Side Slope Gravel | $3 \%$ |
| High Flat Silt/Mud | $2 \%$ |
| Shallow Depression Gravel | $2 \%$ |
| Low Slope Gravel | $2 \%$ |
| Moderate Depression Gravel | $2 \%$ |
| Somewhat Deep Depression Sand | $2 \%$ |
| Deeper Flat Sand | $1 \%$ |
| Shallow Flat Gravel | $1 \%$ |
| Deep Depression Gravel | $1 \%$ |
| Deepest Depression Sand | $1 \%$ |
| Very Shallow Depression Gravel | $1 \%$ |

### 6.2.2 Essential Fish Habitat (EFH)

Information on tilefish habitat requirements can be found in the document titled, Essential Fish Habitat Source Document: Tilefish, Lopholatilus chamaeleonticeps, Life History and Habitat Characteristics" (Steimle et al. 1999). An electronic version of this source document is available at the following website:
http://www.nefsc.noaa.gov/nefsc/habitat/efh/.
The current designation of EFH by life history stage for tilefish is provided here:
Eggs and Larvae: EFH for tilefish eggs and larvae is the water column on the outer continental shelf and slope from the U.S./Canadian boundary to the Virginia/North Carolina boundary in mean water column temperatures between $7.5^{\circ} \mathrm{C}$ and $17.5^{\circ} \mathrm{C}\left(45.5^{\circ} \mathrm{F}\right.$ to $\left.63.5^{\circ} \mathrm{F}\right)$.

Juveniles and Adults: EFH for tilefish juveniles and adults is semi-lithified clay substrate on the outer continental shelf and slope from the U.S./Canadian boundary to the Virginia/North Carolina boundary in bottom water temperatures which range from $9^{\circ} \mathrm{C}$ to $14^{\circ} \mathrm{C}\left(48.2^{\circ} \mathrm{F}\right.$ to $\left.57.2^{\circ} \mathrm{F}\right)$, which generally occur in depths between 100 and 300 meters ( 328 to 984 ft ). Tilefish create horizontal or vertical burrows in semi-lithified clay sediments, a substrate type with cohesive properties that allow the burrows to maintain their shape. Tilefish may also utilize rocks, boulders, scour depressions beneath boulders, and exposed rock ledges as shelter.

Although the revised designations emphasize temperature and substrate type (clay) over depth as being indicative of EFH, depth was used for the purposes of mapping the EFH designations. Depth is fixed and not seasonally variable, therefore the depth ranges that define the area where the preferred bottom temperatures conditions typically prevail ( 100 to 300 meters, or 328 ft to 984 ft ) were used to create maps of benthic EFH for juvenile and adult tilefish on the outer continental shelf and slope from the U.S./Canadian boundary to the Virginia/North Carolina boundary.

Tilefish are primarily caught by bottom longline and otter trawl. Based on dealer data from 20162020, the bulk of the tilefish landings are taken by longline gear ( $97 \%$ ) followed by bottom trawl gear $(2 \%)$. No other gear had any significant commercial landings. Minimal catches were also recorded for hand line, gillnets, dredge (other), and pot/traps (Table 5).

Table 5. Golden tilefish commercial landings ('000 pounds live weight) by gear, Maine through Virginia, 2016-2020 (calendar year).

| Gear | Pounds | Percent |
| :--- | ---: | ---: |
| Otter Trawl Bottom, Fish | 126 | 1.8 |
| Otter Trawl Bottom, Other | 5 | $*$ |
| Gillnet, Anchored/Sink/Other | 8 | $*$ |
| Lines, Hand | 26 | $*$ |
| Lines, Long Set with Hooks | 6,950 | 97.1 |
| Pot \& Trap | 1 | $*$ |
| Dredge, other | 6 | $*$ |
| Unknown, Other Combined Gears | 38 | $*$ |
| All Gear | 7,159 | 100.0 |

Note: $*=$ less than 1,000 pounds or less than 1 percent. Source: NMFS unpublished dealer data.
There are other federally-managed species with life stages that occupy essential benthic habitats that may be susceptible to adverse impacts from otter trawl gear; those can be found in Appendix A as well as the NOAA Fisheries EFH Mapper, which is available at: https://www.fisheries.noaa.gov/resource/map/essential-fish-habitat-mapper.

### 6.2.3 Fishery Impact Considerations

The directed commercial fishery for golden tilefish is largely by bottom longline gear. Otter trawls may also be used, but have limited utility because of the habitat preferred by golden tilefish. Otter trawls are only effective where the bottom is firm, flat, and free of obstructions. Soft mud bottom, rough or irregular bottom, or areas with obstructions, which are those that are most frequented by golden tilefish, are not conducive to bottom trawling. However, golden tilefish are often taken incidental to other directed fisheries, such as the trawl fisheries for lobster and flounder (Freeman and Turner 1977) and hake, squid, Atlantic mackerel and butterfish (NMFS, unpublished landings data).

A panel of experts who participated in a 2001 workshop to evaluate the potential habitat impacts of fishing gears used in the Northeast region concluded that longlines (which land the bulk of the golden tilefish) cause some low degree impacts in mud, sand, and gravel habitats. Bottom trawls, which account for nearly all of the rest of the landings, and which are mostly incidental catches, had the greatest impacts which occur in low and high energy gravel habitats and in hard clay outcroppings (NEFSC 2002).

Golden tilefish are restricted to the continental shelf break south of the Gulf of Maine (Steimle et al. 1999). They occupy a number of habitats, including scour basins around rocks or other rough bottom areas that form burrow-like cavities, and pueblo habitats in clay substrate. The dominant habitat type is a vertical burrow in a substrate of semi-hard silt-clay, 6 to 10 feet deep and 12 to 16 feet in diameter with a funnel shape. These burrows are excavated by golden tilefish, secondary burrows are created by other organisms, including lobsters, conger eels, and galatheid crabs. Golden tilefish are visual daytime feeders on galatheid crabs, mollusks, shrimps, polychaetes, and occasionally fish. Mollusks and echinoderms are more important to smaller tilefish. Little is known about juveniles of this species. A report to the Mid-Atlantic Fishery Management Council (Able and Muzeni 2002), based upon a review of archived video surveys in areas of golden tilefish habitat, did not find visual evidence of direct impacts to burrows due to otter trawls. The Northeast Region EFH Steering Committee Workshop (NEFSC 2002) concluded that there was the potential for a high degree of impact to the physical structure of hard clay outcroppings (pueblo village habitat) by trawls that would result in permanent change to a major physical feature which provides shelter for golden tilefish as well as their benthic prey. Although Able and Muzeni's (2002) review did not offer any evidence of this type of negative effect, their sample size for this habitat type was very small. Due to the golden tilefish's reliance on structured shelter and benthic prey, as well as the benthic prey's reliance on much of the same habitat, and the need for further study, the vulnerability of tilefish EFH to otter trawls was ranked as high (Stevenson et al. 2004). Clam dredges operate in shallow, sandy waters typically uninhabited by tilefish (Wallace and Hoff 2005), so EFH vulnerability was rated as none for this gear. Scallop vessel monitoring data indicate that scallop dredges operate to a small extent in areas overlapping tilefish EFH; therefore, EFH vulnerability to scallop dredges was ranked as low (Stevenson et al. 2004). Tilefish eggs and larvae are pelagic: therefore, EFH vulnerability to gear is not applicable.

Amendment 1 to the Tilefish FMP (MAFMC 2009) prohibited the use of bottom-tending mobile gear within specific areas of the Oceanographer, Lydonia, Veacth, and Norfolk canyons. ${ }^{8}$ The gear

[^39]restricted areas in these four canyons were chosen to providing protection to areas that are known to have clay outcrop/pueblo habitats.

### 6.3 ESA-Listed Species and MMPA Protected Species

### 6.3.1 Species in the Fisheries Environment

There are numerous species inhabiting the environment, within the management unit of tilefish, that are afforded protection under the Endangered Species Act (ESA) of 1973 (i.e., for those designated as threatened or endangered) and the Marine Mammal Protection Act of 1972 (MMPA). Table 6 provides species listed as threatened or endangered under the ESA, as well as one candidate species, that occur within the management unit for golden tilefish. More detailed description of the species listed in Table 6, including their environment, ecological relationships and life history information including recent stock status, is available at http://www.greateratlantic.fisheries.noaa.gov/Protected/ and http://www.nmfs.noaa.gov/pr/sars/region.htm.

Cusk, a NMFS "candidate species" under the ESA, occurs in the affected environment of the golden tilefish fishery. Candidate species are those petitioned species that NMFS is actively considering for listing as endangered or threatened under the ESA and also include those species for which NMFS has initiated an ESA status review through an announcement in the Federal Register. The conference provisions of the ESA apply once a species is proposed for listing (see 50 CFR 402.10); however, candidate species receive no substantive or procedural protection under the ESA. As a result, this species will not be discussed further in this section. For additional information on cusk and proactive conservation efforts being initiated for the species:
http://www.nero.noaa.gov/prot res/CandidateSpeciesProgram/CuskSOC.html.
Table 6. Species Protected Under the ESA and/or MMPA that May Occur in the Affected Environment of the Golden Tilefish Fishery.

| Species | Status | Potentially affected by <br> this action? |
| :--- | :--- | :--- |
| Cetaceans |  |  |
| North Atlantic right whale (Eubalaena glacialis) | Endangered | Yes |
| Humpback whale (Megaptera novaeangliae) | Protected (MMPA) | Yes |
| Fin whale (Balaenoptera physalus) | Endangered | Yes |
| Sei whale (Balaenoptera borealis) | Endangered | No |
| Blue whale (Balaenoptera musculus) | Endangered | No |
| Sperm whale (Physeter macrocephalus | Endangered | No |
| Pygmy sperm whale (Kogia breviceps) | Protected (MMPA) | No |
| Dwarf sperm whale (Kogia sima) | Protected (MMPA) | No |
| Minke whale (Balaenoptera acutorostrata) | Protected (MMPA) | Yes |
| Pilot whale (Globicephala spp.) | No | Notected (MMPA) |


| Species | Status | Potentially affected by this action? |
| :---: | :---: | :---: |
| Short Beaked Common dolphin (Delphinus delphis) ${ }^{3}$ | Protected (MMPA) | No |
| Atlantic Spotted dolphin (Stenella frontalis) | Protected (MMPA) | No |
| Striped dolphin (Stenella coeruleoalba) | Protected (MMPA) | No |
| Beaked whales (Ziphius and Mesoplodon spp) ${ }^{4}$ | Protected (MMPA) | No |
| Bottlenose dolphin (Tursiops truncatus) ${ }^{5}$ | Protected (MMPA) | Yes |
| Harbor porpoise (Phocoena phocoena) | Protected (MMPA) | No |
| Sea Turtles |  |  |
| Leatherback sea turtle (Dermochelys coriacea) | Endangered | Yes |
| Kemp's ridley sea turtle (Lepidochelys kempii) | Endangered | Yes |
| Green sea turtle, North Atlantic DPS (Chelonia mydas) | Threatened ${ }^{6}$ | Yes |
| Loggerhead sea turtle (Caretta caretta), Northwest Atlantic Ocean DPS | Threatened | Yes |
| Hawksbill sea turtle (Eretmochelys imbricate) | Endangered | No |
| Fish |  |  |
| Shortnose sturgeon (Acipenser brevirostrum) | Endangered | No |
| Atlantic salmon (Salmo salar) | Endangered | No |
| Atlantic sturgeon (Acipenser oxyrinchus) |  |  |
| Gulf of Maine DPS | Threatened | Yes |
| New York Bight DPS, Chesapeake Bay DPS, Carolina DPS \& South Atlantic DPS | Endangered | Yes |
| Cusk (Brosme brosme) | Candidate | Yes |
| Pinnipeds |  |  |
| Harbor seal (Phoca vitulina) | Protected (MMPA) | No |
| Gray seal (Halichoerus grypus) | Protected (MMPA) | No |
| Harp seal (Phoca groenlandicus) | Protected (MMPA) | No |
| Hooded seal (Cystophora cristata) | Protected (MMPA) | No |
| Critical Habitat |  |  |
| Northwest Atlantic DPS of | ESA-listed | No |
| Loggerhead Sea Turtle |  |  |
| North Atlantic right whale ${ }^{7}$ | ESA-listed | No |
| Notes: |  |  |
| ${ }^{1}$ On September 8, 2016, a final rule was issued revising the ESA listing status of humpback whales (81 FR 62259). Fourteen DPSs were designated: one as threatened, four as endangered, and nine as not warranting listing. The DPS found in U.S. Atlantic waters, the West Indies DPS, is delisted under the ESA; however, this DPS is still protected under the MMPA. <br> ${ }^{2}$ There are 2 species of pilot whales: short finned (G. melas melas) and long finned (G. macrorhynchus). Due to the difficulties in identifying the species at sea, they are often just referred to as Globicephala spp. <br> ${ }^{3}$ Prior to 2008, this species was called "common dolphin." <br> 4 There are multiple species of beaked whales in the Northwest Atlantic. They include the cuvier's (Ziphius cavirostris), blainville's (Mesoplodon densirostris), gervais' (Mesoplodon europaeus), sowerbys' (Mesoplodon bidens), and trues' (Mesoplodon mirus) beaked whales. Species of Mesoplodon; however, are difficult to identify at sea, and therefore, much of the available characterization for beaked whales is to the genus level only. <br> ${ }^{5}$ This includes the Western North Atlantic Offshore, Northern Migratory Coastal, and Southern Migratory Coastal Stocks of Bottlenose Dolphins. |  |  |


| Species | Status |
| :--- | :--- |
| Potentially affected by <br> this action? |  |
| ${ }^{6}$ On April 6, 2016, a final rule was issued removing the current range-wide listing of green sea turtles and, in its place, listing <br> eight green sea turtle DPSs as threatened and three DPSs as endangered (81 FR 20057). The green sea turtle DPS located in <br> the Northwest Atlantic is the North Atlantic DPS of green sea turtles; this DPS is considered threatened under the ESA. <br> ${ }^{7}$ Originally designated June 3, 1994 (59 FR 28805); Expanded on January 27, 2016 (81 FR 4837). |  |

### 6.3.2 Commercial Fisheries and Protected Species Interactions

The golden tilefish commercial fishery is prosecuted primarily with bottom longline gear. As provided in Table 6, species of large whales, dolphins, sea turtles, and Atlantic sturgeon have the potential to be affected by the operation of the golden tilefish fishery. The List of Fisheries (LOF) classifies U.S. commercial fisheries into Categories according to the level of interactions that result in incidental mortality or serious injury of marine mammals. There are no documented interactions with ESA-listed and MMPA protected species with bottom longline gear in the tilefish fishery. Below, information is provided on the risk of these species interacting with bottom longline gear.

## Large Whales, Bottlenose Dolphins, and Atlantic sturgeon

Based on information provided by Waring et al. (2014), Waring et al. (2015), Waring et al. (2016), Hayes et al. (2017), NMFS NEFSC FSB (2015), NMFS NEFSC FSB (2016), the MMPA List of Fisheries ( 82 FR 3655; January 12, 2017) and information provided on the Northeast Fisheries Observer Program website (http://www.nefsc.noaa.gov/fsb/take_reports/nefop.html), there has been no confirmed serious injury or mortality, or documented interactions, in general, with bottom longline gear and large whales, bottlenose dolphins, or Atlantic sturgeon. Based on this information, bottom longline gear is not expected to pose an interaction risk to any of these species and therefore, is not expected to be source of serious injury or mortality to these species.

## Sea Turtles

Sea turtles are vulnerable to interacting with bottom longline gear; however, the risk is tied to where the gear is placed relative to where and when sea turtles are present. As sea turtles are commonly found in neritic waters of the inner continental shelf (Braun-McNeill and Epperly 2002; Morreale and Standora 2005; Blumenthal et al. 2006; Hawkes et al. 2006; McClellan and Read 2007; Mansfield et al. 2009; Hawkes et al. 2011; Griffin et al. 2013; James et al. 2005; Eckert et al. 2006; Murphy et al. 2006; Dodge et al. 2014) ${ }^{9}$, bottom longline gear placed in continental shelf waters ( $<200$ meters) poses a greater risk of an interaction than bottom longline gear placed in deep waters greater than 200 meters. This is evidenced by the large number of sea turtle interactions observed in the South Atlantic and Gulf of Mexico (under NMFS SERO jurisdiction; NMFS 2006; NMFS 2011a; NMFS 2012), where numerous fisheries prosecuted by bottom longline gear (e.g., HMS fishery-Atlantic shark bottom longline component; Gulf of Mexico reef fishery) operate in nearshore southern continental shelf waters (<200 meters) where sea turtles are commonly present year-round. Under such conditions, the co-occurrence of gear and sea turtles is high, thereby causing increased interaction risks. In contrast, in the Greater Atlantic Region

[^40](GAR), no sea turtles have been observed in bottom longline gear from 1989-2015 (NMFS NEFSC FSB 2015, 2016). This may in part be due to the fact that fisheries (e.g., tilefish spp.) prosecuted by bottom longline gear in the GAR primarily operate in deep continental shelf edge/slope waters ( $>200$ meters). In deeper waters, sea turtle (primarily loggerhead and leatherback) behaviors are primarily directed at migratory movements. As a result, sea turtles are more likely to be present in the water column than near the deep benthos where bottom longline is present, thereby reducing the co-occurrence of bottom longline gear and sea turtles and thus, the potential for an interaction (Braun-McNeill and Epperly 2002; McClellan and Read 2007; Mansfield et al. 2009; Hawkes et al. 2011; Griffin et al. 2013; http://seamap.env.duke.edu/). Based on this, although sea turtle interactions with bottom longline gear are possible, due to the fishing behavior of GAR fisheries prosecuted by bottom longline gear, the risk of an interaction is likely low in the GAR.

### 6.3.3 Recreational Fisheries and Protected Species Interactions

The golden tilefish recreational fishery has been prosecuted with hook and line gear. As provided in Table 6, species of large whales, dolphins, sea turtles, and Atlantic sturgeon have the potential to be affected by the operation of the golden tilefish fishery. Below information is provided on the risk of these species interacting with hook and line gear (i.e., rod and reel).

## Large Whales

Large whales have been reported or observed with hook and line or monofilament line wrapped around or trailing from appendages of the whale's body. In the most recent (2010-2014) mortality and serious injury determinations for baleen whales, the majority of cases identified with confirmed hook and line or monofilament entanglement did not result in the serious injury or mortality to the whale ( $89.5 \%$ observed/reported whales had a serious injury value of $0 ; 10.5 \%$ had a serious injury value of 0.75 ; none of the cases resulted in mortality; Henry et al. 2016). ${ }^{10}$ In fact, $85.0 \%$ of the whales observed or reported with a hook/line or monofilament entanglement were resighted gear free and healthy; confirmation of the health of the other remaining whales remain unknown as no resightings had been made over the timeframe of the assessment (Henry et al. 2016). Based on this information, while large whale interactions with hook and line gear are possible, there is a low probability that an interaction will result in serious injury or mortality to any large whale species. Therefore, relative to other gear types known to result in the serious injury and mortality to large whales (i.e., fixed gear; Hayes et al. 2017; Henry et al. 2016; Palmer 2017), hook and line gear is expected to be low source serious injury or mortality to any large whale.

## Small Cetaceans (Bottlenose Dolphins)

Over the past several years, observer coverage has been limited for fisheries prosecuted with hook and line or trap/pot gear. In the absence of extensive observer data for these fisheries, stranding data provides the next best source of information on species interactions with hook and line or trap pot gear. It is important to note; however, stranding data underestimates the extent of humanrelated mortality and serious injury because not all of the marine mammals that die or are seriously injured in human interactions are discovered, reported, or show signs of entanglement. Additionally, if gear is present, it is often difficult to definitively attribute the animal's death to the

[^41]gear interaction, or if pieces of gear are absent, attribute the death or serious injury to a specific fishery or fishing gear type. As a result, the conclusions below should be taken with these considerations in mind and with an understanding that interactions may occur more frequently than what we are able to detect and provide at this time.

Several bottlenose dolphin stocks have been identified as species at risk of becoming serious injured or killed by hook and line. Reviewing the stock assessment reports for each dolphin stock identified in Table 6, stranding data provides the best source of information on species interaction history with hook and line gear type. Specifically, based on stranding data from 2007-2013, estimated mean annual mortality for each stock due to interactions with hook and line gear was approximately one animal (Waring et al. 2014a; Waring et al. 2016). ${ }^{11}$ Based on this and the best available information, hook and line interaction risks to small cetaceans (specifically bottlenose dolphins) are expected to be low. Should an interaction with a small cetacean occur, serious injury or mortality to the animal is possible; however, relative to other gear types known to result in the serious injury and mortality to small cetaceans (i.e., trawl or gillnet gears; Hayes et al. 2017; Henry et al. 2016; Palmer 2017), hook and line gear represents a low source of serious injury or mortality to any small cetacean.

## Sea Turtles

ESA- listed species of sea turtles are known to interact with hook and line gear, particularly in nearshore, southern waters (e.g., Virginia, south; Sea Turtle Disentanglement Network; NMFS 2013). Serious injury and mortality to sea turtles can be incurred by interactions with hook and line gear, and therefore, can pose a risk to these species. However, the extent to which these interactions are impacting sea turtle populations is still under investigation and therefore, no conclusions can currently be made on the impact of hook and line gear on the continued survival of sea turtle populations. However, as with the commercial fishery (see section 6.3.2), the golden tilefish recreational fishery primarily operates in deep continental shelf edge/slope waters (>200 meters) which could reduce the potential for interaction.

## Atlantic Sturgeon

ESA listed species of Atlantic sturgeon are known to interact with hook and line gear, particularly in nearshore, waters from the Gulf Maine to Southern New England (Network; NMFS 2013). Serious injury and mortality to Atlantic sturgeon can be incurred by hook and line gear interactions, and therefore, can pose a risk to these species. However, the extent to which these interactions are impacting Atlantic sturgeon DPSs is still under investigation and therefore, no conclusions can currently be made on the impact of hook and line gear on the continued survival of Atlantic sturgeon DPSs (NMFS 2013; NMFS 2011b). Nevertheless, subadult and adult Atlantic sturgeon live in coastal waters and estuaries when not spawning (they spawn in freshwater), generally in

[^42]shallow (10-50 meter depth) nearshore areas dominated by gravel and sand substrates. As with the commercial fishery (see section 6.3.2), the golden tilefish recreational fishery primarily operates in deep continental shelf edge/slope waters (>200 meters) which could reduce the potential for interaction.

### 6.4 Human Communities

A detailed description of the social and economic aspects of the fishery for tilefish was presented in Amendment 1 to the FMP (MAFMC 2009). Montauk, New York and Barnegat Light, New Jersey continue to be the ports with the vast number of landings. Recent trends in the fishery are presented below.

Additional information on "Community Profiles for the Northeast U.S. Fisheries" can be found at: https://www.nefsc.noaa.gov/read/socialsci/communitySnapshots.php. In addition, Fishery Performance Reports prepared by industry advisors, provide additonal information on the social and economic environments from the industry members perspectives and are available at: http://www.mafmc.org. Recent trends in the fisheries are presented below and in Fishery Information Documents also available on the Council website.

### 6.4.1 Fishery Descriptions

In 2020, about 1.3 million pounds of tilefish were landed, slightly lower than 2018 at 1.4 million pounds. The average ex-vessel price of tilefish reported by processors was $\$ 3.75$ in 2020, slightly lower than the $\$ 3.81$ per pound seen in 2019. The total ex-vessel value of the 2020 harvest was approximately $\$ 4.8$ million, slightly lower than $\$ 5.4$ million in 2019 (Figure 2).


Figure 2. Landings (landed weight), ex-vessel value, and price for golden tilefish, Maine through Virginia combined, 1999-2020 (calendar year). Note: Price data have been adjusted by the GDP
deflator indexed for 2019. (2020 - unadjusted as GDP deflator for that year was not available when this figure was produced). Source: NMFS unpublished dealer data.

The 2016 through 2020 coastwide average ex-vessel price per pound for all market categories combined was $\$ 3.64$. Price differentials for the 2016 through 2020 period combined indicate that larger fish tend to bring higher prices (Table 7). Nevertheless, even though there is a price differential for various sizes of tilefish landed, tilefish fishermen land all fish caught as the survival rate of discarded fish is very low (L. Nolan 2006; Kitts et al. 2007).

Table 7. Landings, ex-vessel value, and price of golden tilefish by size category, from Maine thought Virginia, 2016-2020 (calendar year).

| Market <br> category | Landed weight <br> (pounds) | Value <br> $\mathbf{( \$ )}$ | Price <br> (\$/pound) | Approximate <br> market size range <br> (pounds) |
| :--- | ---: | ---: | :---: | :---: |
| Extra large | 233,934 | $1,079,040$ | 4.61 | $>25$ |
| Large | $1,543,603$ | $7,448,229$ | 4.83 | $7-24$ |
| Large/medium ${ }^{\text {a }}$ | 892,318 | $3,681,030$ | 4.13 | $5-7$ |
| Medium | $1,885,084$ | $6,545,801$ | 3.47 | $3.5-5$ |
| Small or kittens | $1,747,962$ | $4,507,553$ | 2.58 | $2-3.5$ |
| Extra small | 202,636 | 442,690 | 2.18 | $<2$ |
| Unclassified | 68,890 | 197,607 | 2.87 | --- |
| All | $6,574,427$ | $23,901,950$ | 3.64 | --- |

${ }^{\text {a }}$ Large/medium code was implemented on May 1, 2016. Prior to that, golden tilefish sold in the large/medium range were sold as unclassified fish. Source: NMFS unpublished dealer data.

The COVID-19 pandemic caused a large reduction in the demand for golden tilefish with restaurant closures in 2020. As a consequence, there was a dramatic reduction in effort by all vessels. Full-time vessels in New York capped their trips at about 16,000 pounds and only one vessel landed each week. Barnegat Light (New Jersey), capped landings at about 8,000 to 10,000 pounds per week. Spreading landings helped stabilize prices.

Tilefish prices have remained stable because the tilefish industry continues to coordinate times of landings to avoid market gluts and market floods and spread tilefish landings throughout the year. The ability to do this has improved since IFQs came into place. Overall, prices have been relatively stable in all market categories. However, due to COVID-19, large price reduction occurred, especially at the beginning of the pandemic in 2020. ${ }^{12}$

### 6.4.2 Description of the Areas Fished

A detailed description of the areas fished by the fishery for tilefish was presented in Amendment 1 to the FMP (MAFMC 2009). The following provides information about recent fishery conditions. The commercial fishery for tilefish is prosecuted with bottom longline gear.

Approximately 47 percent of the landings for 2020 were caught in statistical area 616; statistical area 537 had 37 percent; statistical areas 539 and 526 (includes Hydrographer and Veatch

[^43]Canyons) had 5 and 3 percent, respectively; and statistical area 626 had 2 percent. Less than 1 percent of the total landings were caught in statistical area 525 (includes Oceanographer, Lydonia, and Gilbert Canyons), 612, and 622 (Table 8). NMFS statistical areas are shown in Figure 2.

For the 1999 to 2020 period, commercial golden tilefish landings are spread across the years with no strong seasonal variation (Tables 9 and 10). However, in recent years, a slight downward trend in the proportion of golden tilefish landed during the winter period (November-February) and a slight upward trend in the proportion of golden tilefish landed during the May-June period are evident when compared to earlier years (Table 10).

Table 8. Golden tilefish percent landings by statistical area and year, 1996-2020 (calendar year).

| Year | $\mathbf{5 2 5}$ | $\mathbf{5 2 6}$ | $\mathbf{5 3 7}$ | $\mathbf{5 3 9}$ | $\mathbf{6 1 2}$ | $\mathbf{6 1 3}$ | $\mathbf{6 1 6}$ | $\mathbf{6 2 2}$ | $\mathbf{6 2 6}$ | $\mathbf{O}$ Other |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1996 | 0.05 | 5.21 | 64.04 | 0.39 | $*$ | 1.09 | 27.81 | 0.01 | - |  |
| 1997 | 0.03 | 0.67 | 79.51 | 0.02 | $*$ | 2.59 | 16.41 | 0.01 | $*$ | 0.70 |
| 1998 | 1.26 | 2.19 | 81.95 | 0.04 | 0.02 | 5.45 | 8.55 | $*$ | $*$ | 0.53 |
| 1999 | 0.97 | 0.22 | 55.79 | 0.02 | 0.22 | 3.71 | 36.60 | 0.02 | 0.02 | 0.43 |
| 2000 | 0.36 | 3.79 | 46.10 | 0.01 | 0.05 | 2.36 | 43.94 | 0.47 | 0.14 | 2.78 |
| 2001 | 0.23 | 3.09 | 23.92 | $*$ | 0.01 | 3.16 | 68.96 | $*$ | 0.10 | 0.52 |
| 2002 | 0.12 | 8.73 | 35.86 | 0.07 | 0.01 | 18.50 | 36.54 | 0.02 | 0.02 | 0.14 |
| 2003 | 0.88 | 1.81 | 38.48 | 0.10 | - | 11.85 | 46.51 | 0.05 | 0.05 | 0.26 |
| 2004 | 1.03 | 2.59 | 62.85 | 0.05 | 5.28 | 0.70 | 25.95 | 0.03 | 0.06 | 1.66 |
| 2005 | 0.12 | 0.25 | 62.99 | 0.02 | 0.03 | 6.11 | 25.68 | 0.03 | 0.20 | 4.56 |
| 2006 | $*$ | 1.54 | 64.30 | 0.50 | 1.24 | 0.71 | 30.09 | 0.04 | 0.05 | 1.53 |
| 2007 | 0.02 | 0.42 | 57.61 | 0.01 | - | 5.53 | 33.93 | 0.85 | 0.45 | 1.18 |
| 2008 | 1.09 | 0.06 | 44.07 | 0.01 | - | 4.62 | 46.94 | 2.05 | 0.02 | 1.14 |
| 2009 | 2.17 | 0.01 | 42.62 | 1.30 | 0.04 | 4.37 | 46.12 | 1.34 | 1.16 | 0.88 |
| 2010 | 0.01 | 0.01 | 57.14 | 0.55 | 0.02 | 8.39 | 32.83 | 0.69 | 0.04 | 0.31 |
| 2011 | 0.02 | $*$ | 53.06 | 0.01 | - | 3.12 | 39.98 | 0.31 | 0.06 | 3.44 |
| 2012 | 0.01 | 0.01 | 52.54 | 0.03 | $*$ | 0.58 | 43.92 | 0.20 | 0.10 | 2.62 |
| 2013 | $*$ | 0.67 | 56.22 | 1.06 | 0.03 | 0.68 | 35.39 | 1.21 | 4.59 | 0.16 |
| 2014 | 0.01 | 0.52 | 49.36 | 1.89 | 0.01 | 1.29 | 42.85 | 2.67 | 0.35 | 1.06 |
| 2015 | 3.06 | 0.98 | 30.00 | 2.55 | - | 0.01 | 55.02 | 2.34 | 5.53 | 1.50 |
| 2016 | 1.03 | 4.77 | 32.33 | 0.01 | - | 0.98 | 54.50 | 0.17 | 5.81 | 0.39 |
| 2017 | 0.01 | 5.45 | 27.73 | 2.69 | 0.01 | 0.94 | 55.33 | 0.16 | 5.49 | 2.19 |
| 2018 | $*$ | 1.65 | 46.99 | 3.27 | - | 0.06 | 41.18 | 0.57 | 6.13 | 0.15 |
| 2019 | 0.01 | 1.38 | 55.43 | 1.86 | $*$ | 1.69 | 38.50 | 0.06 | 0.34 | 0.74 |
| 2020 | 0.02 | 3.45 | 36.79 | 4.92 | 0.02 | 1.42 | 47.03 | 0.10 | 2.20 | 4.07 |
| All | 0.48 | 1.90 | 53.28 | 0.75 | 0.42 | 3.64 | 36.64 | 0.48 | 1.09 | 1.31 |

Note: - = no landings; * = less than 0.01 percent. Source: NMFS unpublished VTR data.


Figure 2. NMFS Statistical Areas.

Table 9. Golden tilefish commercial landings ('000 pound live weight) by month and year, Maine through Virginia, 1999-2020 (calendar year).

| Year | Month |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Total |
| 1999 | 118 | 114 | 124 | 103 | 93 | 91 | 55 | 106 | 83 | 59 | 77 | 75 | 1,096 |
| 2000 | 52 | 105 | 159 | 101 | 107 | 99 | 34 | 91 | 42 | 107 | 96 | 112 | 1,105 |
| 2001 | 107 | 151 | 159 | 188 | 153 | 179 | 177 | 157 | 156 | 156 | 161 | 176 | 1,920 |
| 2002 | 143 | 232 | 257 | 144 | 164 | 117 | 107 | 141 | 148 | 146 | 68 | 200 | 1,867 |
| 2003 | 183 | 181 | 295 | 254 | 209 | 185 | 152 | 180 | 210 | 202 | 189 | 223 | 2,463 |
| 2004 | 192 | 354 | 514 | 323 | 143 | 56 | 113 | 122 | 181 | 236 | 71 | 189 | 2,492 |
| 2005 | 127 | 159 | 234 | 168 | 33 | 57 | 117 | 104 | 96 | 94 | 141 | 158 | 1,487 |
| 2006 | 210 | 226 | 292 | 125 | 127 | 124 | 86 | 152 | 116 | 140 | 169 | 228 | 1,996 |
| 2007 | 122 | 118 | 192 | 147 | 159 | 96 | 131 | 133 | 125 | 174 | 77 | 189 | 1,664 |
| 2008 | 235 | 206 | 219 | 173 | 124 | 123 | 62 | 90 | 101 | 90 | 109 | 104 | 1,636 |
| 2009 | 90 | 145 | 185 | 200 | 237 | 211 | 184 | 157 | 157 | 128 | 94 | 134 | 1,922 |
| 2010 | 149 | 133 | 273 | 216 | 195 | 157 | 149 | 157 | 176 | 188 | 98 | 137 | 2,027 |
| 2011 | 152 | 94 | 269 | 209 | 227 | 137 | 138 | 149 | 120 | 194 | 65 | 150 | 1,905 |
| 2012 | 146 | 114 | 142 | 207 | 151 | 131 | 157 | 204 | 186 | 221 | 39 | 139 | 1,836 |
| 2013 | 105 | 115 | 146 | 269 | 234 | 193 | 147 | 157 | 126 | 169 | 67 | 133 | 1,862 |
| 2014 | 114 | 93 | 146 | 183 | 187 | 233 | 215 | 171 | 134 | 149 | 50 | 102 | 1,778 |
| 2015 | 68 | 70 | 144 | 128 | 181 | 146 | 130 | 127 | 123 | 82 | 48 | 62 | 1,308 |
| 2016 | 43 | 53 | 91 | 71 | 110 | 119 | 131 | 136 | 91 | 96 | 83 | 64 | 1,089 |
| 2017 | 86 | 69 | 77 | 193 | 195 | 179 | 135 | 134 | 105 | 180 | 47 | 133 | 1,533 |
| 2018 | 81 | 134 | 124 | 194 | 149 | 196 | 181 | 148 | 133 | 103 | 64 | 98 | 1,606 |
| 2019 | 91 | 106 | 131 | 130 | 234 | 164 | 131 | 137 | 158 | 119 | 40 | 96 | 1,537 |
| 2020 | 75 | 95 | 143 | 54 | 187 | 159 | 147 | 133 | 93 | 180 | 65 | 65 | 1,396 |
| Total | 2,687 | 3,067 | 4,319 | 3,780 | 3,601 | 3,151 | 2,878 | 3,086 | 2,860 | 3,212 | 1,918 | 2,966 | 37,523 |
| Avg. 11-20 | 96 | 94 | 141 | 164 | 186 | 166 | 151 | 150 | 127 | 149 | 57 | 104 | 1,585 |

Source: NMFS unpublished dealer data.

Table 10. Percent of golden tilefish commercial landings (live weight) by month and year, Maine through Virginia, 1999-2020
(calendar year).

| Year | Month |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Total |
| 1999 | 10.75 | 10.38 | 11.28 | 9.41 | 8.50 | 8.29 | 4.99 | 9.66 | 7.55 | 5.36 | 6.98 | 6.86 | 100.00 |
| 2000 | 4.68 | 9.48 | 14.41 | 9.13 | 9.67 | 8.95 | 3.05 | 8.26 | 3.78 | 9.71 | 8.70 | 10.18 | 100.00 |
| 2001 | 5.59 | 7.88 | 8.30 | 9.77 | 7.95 | 9.32 | 9.24 | 8.16 | 8.13 | 8.11 | 8.40 | 9.14 | 100.00 |
| 2002 | 7.64 | 12.43 | 13.76 | 7.73 | 8.78 | 6.28 | 5.74 | 7.56 | 7.91 | 7.85 | 3.63 | 10.70 | 100.00 |
| 2003 | 7.44 | 7.33 | 11.98 | 10.31 | 8.47 | 7.52 | 6.18 | 7.32 | 8.52 | 8.19 | 7.68 | 9.05 | 100.00 |
| 2004 | 7.69 | 14.21 | 20.64 | 12.95 | 5.74 | 2.23 | 4.52 | 4.88 | 7.25 | 9.46 | 2.87 | 7.57 | 100.00 |
| 2005 | 8.54 | 10.71 | 15.77 | 11.28 | 2.24 | 3.82 | 7.85 | 6.98 | 6.43 | 6.32 | 9.46 | 10.60 | 100.00 |
| 2006 | 10.50 | 11.32 | 14.65 | 6.28 | 6.38 | 6.22 | 4.33 | 7.60 | 5.82 | 7.04 | 8.46 | 11.41 | 100.00 |
| 2007 | 7.35 | 7.08 | 11.55 | 8.83 | 9.56 | 5.79 | 7.86 | 7.99 | 7.53 | 10.48 | 4.63 | 11.35 | 100.00 |
| 2008 | 14.37 | 12.59 | 13.40 | 10.56 | 7.60 | 7.50 | 3.77 | 5.53 | 6.18 | 5.49 | 6.66 | 6.35 | 100.00 |
| 2009 | 4.67 | 7.55 | 9.64 | 10.39 | 12.36 | 10.97 | 9.56 | 8.18 | 8.16 | 6.65 | 4.88 | 6.99 | 100.00 |
| 2010 | 7.35 | 6.54 | 13.49 | 10.68 | 9.61 | 7.73 | 7.37 | 7.75 | 8.68 | 9.25 | 4.81 | 6.74 | 100.00 |
| 2011 | 7.96 | 4.96 | 14.13 | 10.99 | 11.93 | 7.20 | 7.24 | 7.82 | 6.30 | 10.18 | 3.41 | 7.88 | 100.00 |
| 2012 | 7.94 | 6.22 | 7.72 | 11.26 | 8.22 | 7.11 | 8.57 | 11.09 | 10.14 | 12.03 | 2.15 | 7.55 | 100.00 |
| 2013 | 5.66 | 6.18 | 7.84 | 14.47 | 12.54 | 10.37 | 7.90 | 8.46 | 6.75 | 9.08 | 3.60 | 7.14 | 100.00 |
| 2014 | 6.41 | 5.25 | 8.20 | 10.31 | 10.50 | 13.09 | 12.07 | 9.63 | 7.55 | 8.40 | 2.84 | 5.74 | 100.00 |
| 2015 | 5.21 | 5.38 | 10.97 | 9.79 | 13.86 | 11.16 | 9.91 | 9.71 | 9.40 | 6.24 | 3.67 | 4.73 | 100.00 |
| 2016 | 3.94 | 4.85 | 8.34 | 6.52 | 10.11 | 10.97 | 12.00 | 12.47 | 8.39 | 8.85 | 7.66 | 5.91 | 100.00 |
| 2017 | 5.59 | 4.52 | 5.05 | 12.56 | 12.72 | 11.67 | 8.84 | 8.72 | 6.87 | 11.73 | 3.05 | 8.68 | 100.00 |
| 2018 | 5.02 | 8.37 | 7.73 | 12.07 | 9.31 | 12.20 | 11.28 | 9.22 | 8.31 | 6.40 | 3.99 | 6.10 | 100.00 |
| 2019 | 5.93 | 6.87 | 8.53 | 8.46 | 15.24 | 10.64 | 8.49 | 8.92 | 10.26 | 7.77 | 2.62 | 6.27 | 100.00 |
| 2020 | 5.39 | 6.78 | 10.27 | 3.86 | 13.43 | 11.40 | 10.52 | 9.52 | 6.67 | 12.86 | 4.62 | 4.68 | 100.00 |
| Total | 7.16 | 8.17 | 11.51 | 10.07 | 9.60 | 8.40 | 7.67 | 8.22 | 7.62 | 8.56 | 5.11 | 7.90 | 100.00 |

Source: NMFS unpublished dealer data.

### 6.4.3 Port and Community Description

The ports and communities that are dependent on golden tilefish are fully described in Amendment 1 to the FMP (section 6.5; MAFMC 2009; found at http://www.mafmc.org/fisheries/fmp/tilefish). Additional information on "Community Profiles for the Northeast US Fisheries" can be found at https://appsnefsc.fisheries.noaa.gov/read/socialsci/communitySnapshots.php.
To examine recent landings patterns among ports, 2019-2020 NMFS dealer data are used. The top commercial landings ports for golden tilefish are shown in Table 11. A "top port" is defined as any port that landed at least 10,000 pounds of golden tilefish. Ports that received 1 percent or greater of their total revenue from golden tilefish are shown in Table 12.

Table 11. Top ports ( $\geq 10,000$ pounds per year) of landing (live weight) for golden tilefish, based on NMFS 2019-2020 dealer data (calendar year). Since this table includes only the "top ports," it may not include all of the landings for the year.

| Port | 2019 |  | 2020 |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Landings <br> (pounds) | \# Vessels | Landings <br> (pounds) | \# Vessels |
| Montauk, NY | 910,338 <br> $(906,619)$ | 16 <br> $(3)$ | 782,026 <br> $(779,977)$ | 13 <br> $(4)$ |
|  | 398,374 <br> $(398,374)$ | 5 <br> $(5)$ | 376,294 <br> $(376,374)$ | $(5)$ |
| Hampton Bays, NY | 201,246 <br> $(C)$ | 5 <br> $(C)$ | 188,556 <br> $(C)$ | $(\mathrm{C})$ |
|  | 5,763 | 51 | 9,792 | 52 |
|  | $(0)$ | $(0)$ | $(0)$ | $(0)$ |

${ }^{a}$ Values in parentheses correspond to IFQ vessels. Note: $\mathrm{C}=$ Confidential. Source: NMFS unpublished dealer data. Note: ports that may have had landings $\geq 10,000$ pounds not added to this table due to confidentiality issues.

Table 12. Ports that generated 1 percent or greater of total revenues from golden tilefish, 2016-2020 (calendar year).

| Port | State | Ex-vessel <br> revenue all <br> species <br> combined | Ex-vessel <br> revenue <br> golden tilefish | Golden tilefish <br> contribution <br> to total port <br> ex-vessel <br> revenues |
| :--- | :--- | ---: | ---: | :---: |
| Ocean City | NJ | 12,441 | 4,565 | $37 \%$ |
| East Hampton | NY | 63,090 | 11,698 | $19 \%$ |
| Montauk | NY | $84,058,877$ | $13,381,066$ | $16 \%$ |
| Hampton Bays | NY | $30,107,477$ | $3,924,172$ | $13 \%$ |
| Lynnhaven | VA | 552,687 | 45,679 | $8 \%$ |
| Barnegat \& Barnegat Light/Long Beach | NJ | $122,929,588$ | $6,056,760$ | $5 \%$ |
| Shinnecock | NY | $6,153,917$ | 203,603 | $3 \%$ |

Source: NMFS unpublished dealer data.

### 6.4.4 IFQ Allocations, Vessels, Permits, Dealers, and Markets

There were 11 IFQ allocation holders in 2020. The average golden tilefish quota allocation percent was $10 \%$, ranging from 2 to 28 percent. The bulk of the landings occur in New York and New Jersey, particularly Montauk, New York, and Barnegat Light, New Jersey.

Data from the Greater Atlantic permit application database shows that in 2020 there were 1,927 vessels that held a valid open access commercial/incidental permit (valid for both golden and blueline tilefish) and 606 vessels held a valid open access party/charter tilefish permit. However, not all of those vessels are active participants in the fishery.

In 2020 there were 50 federally permitted dealers who bought golden tilefish from 105 vessels that landed this species from Maine through Virginia. In addition, 54 dealers bought golden tilefish from 106 vessels in 2019. These dealers bought approximately $\$ 5.4$ and $\$ 4.8$ million of golden tilefish in 2019 and 2020, respectively, and are distributed by state as indicated in Table 13. Table 14 shows relative dealer dependence on tilefish.

Furthermore, according to vessel trip report (VTR) data, 26 party/charter vessels reported a total of 77 trips that landed golden tilefish in 2020. VTR data indicates that party/charter vessel landed 3,466 golden tilefish in 2020. This represented a 36 percent decrease from 2019 (5,424 fish landed).

Table 13. Dealers reporting buying golden tilefish, by state in 2019-2020 (calendar year).

| Number of dealers | MA |  | RI |  | CT |  | NY |  | NJ |  | VA |  | Other |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | '19 | '20 | '19 | '20 | '19 | '20 | '19 | '20 | '19 | '20 | '19 | '20 | '19 | '20 |
|  | 4 | 6 | 10 | 10 | 10 | 6 | 16 | 13 | 8 | 7 | C | 4 | 6 | 4 |

Note: C = Confidential. Source: NMFS unpublished dealer data.
Table 14. Dealer dependence on golden tilefish, 2016-2020 (calendar year).

| Number of dealers | Relative dependence on tilefish |
| :---: | :---: |
| 67 | $<5 \%$ |
| 7 | $5 \%-10 \%$ |
| 2 | $10 \%-25 \%$ |
| 4 | $25 \%-50 \%$ |
| 2 | $50 \%-75 \%$ |
| 1 | $90 \%+$ |

Source: NMFS unpublished dealer data.
Most tilefish are sold fresh. The bulk of the catch is gutted at sea and iced during long trips. Incidental catches are not gutted. When the catch arrives at the dock it is sorted, washed, weighted, boxed, and iced in 60 pound cartons. Tilefish are generally transported to the Fulton Market by truck. Tilefish is carried as a specialty item in the Fulton Market for mostly ethnic customers. However, an increasing although small amount is going to local buyers on Long Island, where there has been an uptick in local restaurants featuring local fishes as well as purchases by a Sea-to-Table business serving the larger region (sea2table.com). Tilefish supplies are very stable throughout the year as the IFQ participants spread their landings through the fishing season to avoid market gluts and price fluctuations. Nevertheless, the price for Golden tilefish decreases when tilefish landed in the South Atlantic "derby" fishery enters the New York market. This typically occurs a few months out of the year as the South Atlantic tilefish fishery typically closes early in the season. Fishermen in the Mid-Atlantic take this into account when planning fishing activity.

### 7.0 ENVIROMENTAL CONSEQUENCES OF ALTERNATIVES

Environmental impacts are described both in terms of their direction (negative, positive, or no impact) and their magnitude (slight, moderate, or high). Table 15 summarizes the guidelines used for each VEC to determine the magnitude and direction of the impacts described in this section.

The recent conditions of the VECs include the biological conditions of the target stocks, non-target stocks, and protected species over the most recent five years (sections 6.1 and 6.3). They also include the fishing practices and levels of effort and landings in the golden tilefish fishery over the most recent years, as well as the economic characteristics of the fisheries over the most recent years (depending on the dataset; section 6.4). The recent conditions of the VECs also include recent levels of habitat availability and quality (section 6.2). The current condition of each VEC is described in Table 16.

This EA analyzes the impacts of the alternatives described fully under section 5.0 on each VEC. For ease of reference, those alternatives are listed here.

## Multi-Year Specifications Alternatives

- Alternative 1: No Action/Status Quo - No changes to the process to set golden tilefish management specifications for up to 3 years
- Alternative 2: Specifications to be set for maximum number of years needed to be consistent with the Northeast Regional Coordinating Council (NRCC)-approved stock assessment schedule


## Fishing Year Timing Alternatives

- Alternative 1: No Action/Status Quo - No changes to the current golden tilefish fishing year. The golden tilefish fishing year will continue to be November 1 October 31
- Alternative 2: The golden tilefish fishing year is the 12 -month period beginning with January 1, annually. Therefore, the fishing year is from January 1 December 31


## 2023-2024 Golden Tilefish Commercial Quota Alternatives

- Alternative 1: No Action/Status Quo
- Alternative 2: TBD, for example, allowing quotas to change from year to year such as time varying quotas
- Alternative 3: TBD, for example, average quotas for the 2023-2024 period

When considering impacts on each VEC, the alternatives are compared to the current condition of the VEC. The alternatives are also compared to each other.

The alternatives are not compared to a theoretical condition where the fisheries are not operating. These fisheries have occurred for many decades and are expected to continue into the foreseeable future. The nature and extent of the management programs for these
fisheries have been examined in detail in EAs and Environmental Impact Statements (EISs) prepared for previously implemented management actions under the Tilefish FMP.

This action proposes modifications that revise the process for specifying multi-year management measures and the process for specifying the fishing year timing. In addition, this framework will set new specifications for 2023-2024.

In general, alternatives which may result in overfishing or an overfished status for target and non-target species may have negative impacts for those species, compared to the current condition of the VEC. Conversely, alternatives which may result in a decrease in fishing effort, resulting in ending overfishing or rebuilding to the biomass target, may result in positive impacts for those species by resulting in a decrease in fishing mortality (Table 15).

For the physical environment and habitat, alternatives that improve the quality or quantity of habitat or result in a decrease in fishing effort are expected to have positive impacts. Alternatives that degrade the quality or quantity, or increase disturbance of habitat are expected to have negative impacts (Table 15). In addition, alternatives that result in continued fishing effort may result in slight negative impacts. A reduction in fishing effort is likely to decrease the time that fishing gear is in the water, thus reducing the potential for interactions between fishing gear and habitat. The directed commercial fishery for golden tilefish is largely by bottom longline gear. Otter trawls may also be used (incidental fisheries for tilefish), but have limited utility because of the habitat preferred by tilefish. Longlines (which land the bulk of the tilefish) cause some low degree impacts in mud, sand, and gravel habitats (section 6.2.3).

For protected species, consideration is given to both ESA-listed species and MMPA protected species. ESA-listed species include populations of fish, marine mammals, or turtles at risk of extinction (endangered) or endangerment (threatened). For ESA-listed species, any action that results in interactions or takes is expected to have negative impacts, including actions that reduce interactions. Actions expected to result in positive impacts on ESA-listed species include only those that contain specific measures to ensure no interactions (i.e., no take). By definition, all species listed under the ESA are in poor condition and any take has the potential to negatively impact that species' recovery.

Under the MMPA, the stock condition of each protected species varies, but all are in need of protection. For marine mammal stocks/species that have their potential biological removal (PBR) level reached or exceeded, negative impacts would be expected from any alternative that has the potential to interact with these species or stocks. For species that are at more sustainable levels (i.e., PBR levels have not been exceeded), actions not expected to change fishing behavior or effort such that interaction risks increase relative to what has been in the fishery previously, may have positive impacts by maintaining takes below the PBR level and approaching the Zero Mortality Rate Goal (Table 15). The impacts of each alternative on the protected resources VEC take into account impacts on ESA-listed species, impacts on marine mammal stocks in good condition (i.e., PBR level
has not been exceeded), and marine mammal stocks that have exceeded or are in danger of exceeding their PBR level.

Socioeconomic (human communities) impacts are considered in relation to potential changes in landings and prices, and by extension, revenues, compared to the current fisheries conditions. Alternatives which could result in an increase in landings are generally considered to have positive socioeconomic impacts because they could result in increased revenues; however, if an increase in landings leads to a decrease in price or a decrease in stock biomass for any of the landed species, then negative socioeconomic impacts could occur.

## Expected Changes in Fishing Effort Under Alternatives Considered

The expected impacts to each VEC are derived from both consideration of the current condition of the VEC and the expected changes in fishing effort under each of the alternatives. It is not possible to quantify with confidence how effort will change under each alternative; therefore, expected changes are typically described qualitatively.

Table 15. General definitions for impacts and qualifiers relative to resource condition (i.e., baseline) summarized in Table 16 below.

| General Definitions |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| VEC | Resource Condition | Impact of Action |  |  |
|  |  | Positive (+) | Negative (-) | No Impact (0) |
| Target and Nontarget Species | Overfished status defined by the MSA | Alternatives that would maintain or are projected to result in a stock status above an overfished condition* | Alternatives that would maintain or are projected to result in a stock status below an overfished condition* | Alternatives that do not impact stock / populations |
| ESA-listed Protected Species (endangered or threatened) | Populations at risk of extinction (endangered) or endangerment (threatened) | Alternatives that contain specific measures to ensure no interactions with protected species (e.g., no take) | Alternatives that result in interactions/take of listed resources, including actions that reduce interactions | Alternatives that do not impact ESA listed species |
| MMPA Protected Species (not also ESA listed) | Stock health may vary but populations remain impacted | Alternatives that will maintain takes below PBR and approaching the Zero Mortality Rate Goal | Alternatives that result in interactions with/take of marine mammal species that could result in takes above PBR | Alternatives that do not impact MMPA Protected Species |
| Physical <br> Environment / <br> Habitat / EFH | Many habitats degraded from historical effort (see condition of the resources table for details) | Alternatives that improve the quality or quantity of habitat | Alternatives that degrade the quality, quantity or increase disturbance of habitat | Alternatives that do not impact habitat quality |
| Human <br> Communities / Socioeconomic | Highly variable but generally stable in recent years (see condition of the resources table for details) | Alternatives that increase revenue and social wellbeing of fishermen and/or communities | Alternatives that decrease revenue and social well-being of fishermen and/or communities | Alternatives that do not impact revenue and social well-being of fishermen and/or communities |
|  | Impact Qualifiers |  |  |  |
| A range of impact qualifiers is used to indicate any existing uncertainty | Negligible |  | To such a small degree to be indistinguishable from no impact |  |
|  | Slight (sl), as in slight negative) | positive or slight | To a lesser degree / minor |  |
|  | Moderately (M) positive or negative |  | To an average degree (i.e., more than "slight," but not "high") |  |
|  | High (H), as in high positive or high negative |  | To a substantial degree (not significant unless stated) |  |
|  | Significant (in the case of an EIS) |  | Affecting the resource condition to a great degree, see 40 CFR 1508.27. |  |
|  | Likely |  | Some degree of uncertainty associated with the impact |  |

[^44]Table 16. Baseline conditions of VECs considered in this action, as summarized in section 6.0.

| VEC |  | Baseline Condition |  |
| :---: | :---: | :---: | :---: |
|  |  | Status/Trends, Overfishing? | Status/Trends, Overfished? |
| Target stock (section) | Golden Tilefish | No | No |
| Non-target species (principal species listed in section 6.1.3 that account for 0.1 percent or more of the total catch from golden tilefish trips) | Spiny dogfish | No | No |
|  | Smooth dogfish | No | No |
|  | Blueline tilefish (South Atlantic) | No | No |
|  | Blueline tilefish (Mid-Atlantic) | Unknown | Unknown |
|  | Conger eel | Unknown | Unknown |
| Habitat (section 6.2) |  | Commercial fishing impacts are complex and variable and typically non adverse; Non-fishing activities had historically negative but site-specific effects on habitat quality. |  |
| Protected resources (section 6.3) | Sea turtles | Leatherback and Kemp's ridley sea turtles are classified as endangered under the ESA; loggerhead (NW Atlantic Ocean DPS) and green (North Atlantic DPS) sea turtles are classified as threatened. |  |
|  | Fish | Atlantic salmon, shortnose sturgeon, and the New York Bight, Chesapeake, Carolina, and South Atlantic DPSs of Atlantic sturgeon are classified as endangered under the ESA; the Atlantic sturgeon Gulf of Maine DPS is listed as threatened; cusk are candidate species |  |
|  | Large whales | All large whales in the Northwest Atlantic are protected under the MMPA. North Atlantic right, fin, blue, sei, and sperm whales are also listed as endangered under the ESA. |  |
|  | Small cetaceans | Pilot whales, dolphins, and harbor porpoise are all protected under the MMPA. |  |
|  | Pinnipeds | Gray, harbor, hooded, and harp seals are protected under the MMPA. |  |
| Human communities (section 6.4) |  | Golden tilefish stock support a small IFQ fishery and related support services. There were 11 IFQ allocation owners in 2020 and the number of active vessels participating in the IFQ fishery has ranged from 9 to 10 in recent years. 2020 estimated ex-vessel revenues was about 4.8 million. The bulk of the landings occur in New York and New Jersey, particularly Montauk, New York, and Barnegat Light, New Jersey. In addition, there is a small incidental fishery. In 2020 there were 50 federally permitted dealers who bought golden tilefish from 105 vessels that landed this species from Maine through Virginia. Most tilefish are sold fresh. The bulk of the catch is gutted at sea and iced during long trips. Incidental catches are not gutted. Tilefish supplies are very stable throughout the year as the IFQ participants spread their landings through the fishing season to avoid market gluts and price fluctuations. |  |

### 7.1 Multi-Year Specification Alternatives

### 7.1.1 Impacts on Golden Tilefish and Non-Target Species

The alternatives discussed in this section are expected to have no impact on the prosecution of the golden tilefish fishery, including landings levels, distribution of fishing effort, or fishing methods and practices, as they only address the process for the duration of setting multi-year management measures.

Under alternative 1 (no action/status quo), there would be no changes to the process to set golden tilefish management specifications for up to 3 years. The no action alternative is expected to have no impact (direct or indirect) on the target species (managed species) when compared to the current condition of the stock.

The no action alternative is not expected to impact (direct or indirect) non-target species caught in the golden tilefish commercial fishery. All of the species most commonly caught on directed tilefish trips have positive stock status, except for blueline tilefish in the MidAtlantic and conger eel which status are unknown. As indicated above, the prosecution of the golden tilefish fishery, including landings levels, distribution of fishing effort, or fishing methods and practices are not expected to change under this alternative. Therefore, the no action alternative is expected to have no impact on interaction of this fishery with non-targeted species when compared to the current conditions.

Alternative 2 would change the process the annual multi-year specifications are set; it would simply change the number of years (time period) for which those measures could be set. Under alternative 2 , specifications could be set for up to the maximum number of years needed to be consistent with the NRCC-approved stock assessment schedule. This alternative would provide additional flexibility as specifications could be set to cover the time period until a new golden tilefish stock assessment is produced. New specifications of annual catch and landings limits (or other annual specifications measures) would be prepared in the final year of the quota period unless there is a need for interim quota modifications. Specifications under the multi-year process described in alternative 2 would include all the environmental impact review procedures currently required under the MSA, and other applicable laws, including NEPA. These review procedures collectively ensure that impacts on fisheries resources be considered prior to implementation of the proposed harvest levels. In addition, under this alternative, Council staff will coordinate with NEFSC staff, during the first quarter of each year (during the multi-year specifications period) to assess if there is any information regarding these fisheries that needs to be brought to the attention of the SSC and Council. Alternative 2 is expected to have no impact (direct or indirect) on the target species (managed species) or non-target species caught in the golden tilefish fishery when compared to the current conditions. None of the other existing catch and landings limits requirements, accountability measures, reporting requirements or IFQ system management procedures will change under alternative 2 . Alternative 2 is expected to have the same impacts on the target and non-target species as alternative 1 (status quo).

When comparing across both alternative, alternative 2 is expected to have no impacts when compared to status quo measures (alternative 1).

Although there are no impacts on the VECs, alternative 2 would provide for some administrative efficiencies by reducing the need to create and implement multiple specification documents to set management measures for the fishery between stock assessments; thus, improving the management process (i.e., efficient use of Council and NOAA staff time and reducing and management

### 7.1.2 Impacts on Physical Habitat

The alternatives discussed in this section are expected to have no impact on the prosecution of the golden tilefish fishery, including landings levels, distribution of fishing effort, or fishing methods and practices.

Under alternative 1 (no action/status quo), there would be no changes to the process to set golden tilefish management specifications for up to 3 years. The no action alternative is expected to have no impact (direct or indirect) on the physical habitat when compared to the current conditions.

Alternative 2 would change the process by which the periodicity of the annual multi-year specifications are set; it would simply change the number of years (time period) for which those measures could be set. Under alternative 2, specifications could be set for up to the maximum number of years needed to be consistent with the NRCC-approved stock assessment schedule. This alternative would provide additional flexibility as specifications could be set to cover the time period until a new golden tilefish stock assessment is produced. Any future specification set would still undergo environmental review (as noted under section 7.1.1). Alternative 2 is expected to have no impact (direct or indirect) on the target species (managed species) or non-target species caught in the golden tilefish fishery. None of the other existing catch and landings limits requirements, accountability measures, reporting requirements or IFQ system management procedures will change under alternative 2. Alternative 2 is expected to have the same impacts on the physical habitat as alternative 1 (status quo).

When comparing across both alternatives for habitat, alternative 2 is expected to have no impacts when compared to the status quo measures.

### 7.1.3 Impacts on Protected Species

The alternatives discussed in this section are expected to have no impact on the prosecution of the golden tilefish fishery, including landings levels, distribution of fishing effort, or fishing methods and practices.

Under alternative 1 (no action/status quo), there would be no changes to the process to set golden tilefish management specifications for up to 3 years. The no action alternative is
expected to have no impact (direct or indirect) on protected resources when compared to the current conditions.

Alternative 2 would change the process by which the periodicity of the annual multi-year specifications are set; it would simply change the number of years (time period) for which those measures could be set. Under alternative 2, specifications could be set for up to the maximum number of years needed to be consistent with the NRCC-approved stock assessment schedule. This alternative would provide additional flexibility as specifications could be set to cover the time period until a new golden tilefish stock assessment is produced. Any future specification set would still undergo environmental review (as noted under section 7.1.1). None of the other existing catch and landings limits requirements, accountability measures, reporting requirements or IFQ system management procedures will change under alternative 2 . Alternative 2 is expected to have the same impacts on the protected resources as alternative 1 (status quo).

When comparing across both alternatives for protected resources, alternative 2 is expected to have no impacts when compared to the status quo measures.

### 7.1.4 Impacts on Human Communities

The alternatives discussed in this section are expected to have no impact on the prosecution of the golden tilefish fishery, including landings levels, distribution of fishing effort, or fishing methods and practices.

Under alternative 1 (no action/status quo), there would be no changes to the process to set golden tilefish management specifications for up to 3 years. The no action alternative is expected to have no impact (direct or indirect) on the human communities when compared to the current conditions.

Alternative 2 would change the process by which the periodicity of the annual multi-year specifications are specified. Under alternative 2 , specifications could be set for up to the maximum number of years needed to be consistent with the NRCC-approved stock assessment schedule. This alternative would provide additional flexibility as specifications could be set to cover the time period until a new golden tilefish stock assessment is produced. Any future specification set would still undergo environmental review (as noted under section 7.1.1). Alternative 2 is expected to have no impact (direct or indirect) on the human communities when compared to the current conditions. None of the other existing catch and landings limits requirements, accountability measures, reporting requirements or IFQ system management procedures will change under alternative 2 . Alternative 2 is expected to have the same impacts on the human communities as alternative 1 (status quo).

When comparing across both alternative, alternative 2 is expected to have no impacts when compared to status quo measures (alternative 1).

Although there are no impacts on the VECs, alternative 2 would provide for some administrative efficiencies by reducing the need to create and implement multiple
specification documents to set management measures for the fishery between stock assessments; thus, improving the management process (i.e., efficient use of Council and NOAA staff time and reducing management costs). It is possible that this could in turn decrease administrative burden and the IFQ cost recovery fee.

### 7.2 Fishing Year Timing Alternatives

### 7.2.1 Impacts on Golden Tilefish and Non-Target Species

The alternatives discussed in this section are expected to have no impact on the prosecution of the golden tilefish fishery, including landings levels, distribution of fishing effort, or fishing methods and practices, as they only address the process for setting the timing of the fishing year. As indicated in section 6.1.3, commercial golden tilefish landings are spread across the years with no strong seasonal variation.

Under alternative 1 (no action/status quo), there would be no changes to current golden tilefish fishing year. The golden tilefish fishing year will continue to be November 1 October 31. The no action alternative is expected to have no impact (direct or indirect) on the target species (managed species) when compared to the current condition of the stock.

The no action alternative is not expected to impact non-target species caught in the golden tilefish commercial fishery (neither direct nor indirectly). All of the species most commonly caught on directed tilefish trips have positive stock status, except for blueline tilefish in the Mid-Atlantic and conger eel which status are unknown. As indicated above, the prosecution of the golden tilefish fishery, including landings levels, distribution of fishing effort, or fishing methods and practices are not expected to change under this alternative. Therefore, the no action alternative is expected to have no impact on interaction of this fishery with non-targeted species.

Alternative 2 would change the process by which the current fishing year is set. Under alternative 2 , the golden tilefish fishing year is the 12-month period beginning with January 1 , annually. Therefore, the fishing year is from January 1 - December 31. This alternative would result in quota specifications for the January 1 - December 31, to be aligned the 12 month fishing year cycle with the 12 month cycle for which stock projections are made; thus, potentially reducing uncertainty in the long-term. ${ }^{13}$ This is expected to result in impacts to the stock that range from no impacts to slightly positive impacts when compared to the current conditions.

When comparing across both alternatives, alternative 2 is expected to result in impacts that range from no impacts to slightly positive impacts when compared to status quo measure (alternative 1).

[^45]
### 7.2.2 Impacts on Physical Habitat

The impacts on habitat are identical to those described under section 7.1.2 above.

### 7.2.3 Impacts on Protected Species

The impacts on protected resources are identical to those described under section 7.1.3 above.

### 7.2.4 Impacts on Human Communities

The alternatives discussed in this section are expected to have no impact on the prosecution of the golden tilefish fishery, including landings levels, distribution of fishing effort, or fishing methods and practices.

Under alternative 1 (no action/status quo), there would be no changes to current golden tilefish fishing year. The golden tilefish fishing year will continue to be November 1 October 31. The no action alternative is expected to have no impact (direct or indirect) on the human communities when compared to the current conditions.

Alternative 2 would change the process by which the current fishing year is set. Under alternative 2 , the golden tilefish fishing year is the 12-month period beginning with January 1 , annually. Therefore, the fishing year is from January 1 - December 31. This alternative would result in quota specifications for the January 1 - December 31, to be aligned with cost recovery calculations associated with managing the IFQ system. This could in turn decrease administrative burden and the IFQ cost recovery fee. In addition, industry members have indicated that aligning the fishing year with the calendar year will create more stability in harvesting their full allocation. This is expected to result in impacts to the human communities that range from no impacts to slightly positive impacts when compared to the current conditions.

When comparing across both alternative, alternative 2 is expected to result in impacts that range from no impacts to slightly positive impacts when compared to status quo measure (alternative 1).

### 7.3 Golden Tilefish Commercial Quota Alternatives for 2023-2024

Sections 7.3.1 to 7.3.4 to be completed. Note: The results of the 2021 golden tilefish management track assessment and projections to calculate commercial quotas will be available in July 2021. Therefore, specific quota alternatives (quota values) will not be made available until the second framework meeting.

### 7.3.1 Impacts on Golden Tilefish and Non-Target Species

### 7.3.2 Impacts on Physical Habitat

### 7.3.3 Impacts on Protected Species

### 7.3.4 Impacts on Human Communities

### 7.4 Cumulative Effects Analysis

This section to be completed once the Council selects preferred alternatives.

### 8.0 APPLICABLE LAWS

This section to be completed prior to the second required framework meeting.

### 9.0 LITERATURE CITED

This section to be completed prior to the second required framework meeting.

### 10.0 LIST OF AGENCIES AND PERSONS CONSULTED

In preparing this framework document, the Council consulted with NMFS, The New England and South Atlantic Fishery Management Councils, Fish and Wildlife Service, and the states of Maine through North Carolina through their membership on the Council. To ensure compliance with NMFS formatting requirements, the advice of NMFS GARFO personnel was sought.

Copies of the framework document, including the Environmental Assessment and Regulatory Flexibility Analysis and other supporting documents for the framework are available from Dr. Christopher M. Moore, Executive Director, Mid-Atlantic Fishery Management Council, Suite 201, 800 North State Street, Dover, DE 19901

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# MEMORANDUM 

Date: $\quad$ March 26, 2021
To: Council
From: Mary Sabo, Council Staff
Subject: Listening Session on President Biden's Executive Order on Tackling the Climate Crisis at Home and Abroad

On January 27, 2021, President Biden issued Executive Order 14008, Tackling the Climate Crisis at Home and Abroad. Section 216 (c) directs NOAA to collect recommendations on how to make fisheries, including aquaculture, and protected resources more resilient to climate change, including changes in management and conservation measures, and improvements in science, monitoring, and cooperative research.

During this meeting, the Council will receive a presentation on Section 216(c) from Mr. Paul Doremus, Acting Assistant Administrator for NOAA Fisheries. The presentation will be followed by an opportunity for discussion and comment.

Sec. 216. Conserving Our Nation's Lands and Waters.
(c) The Secretary of Commerce, through the Administrator of the National Oceanic and Atmospheric Administration, shall initiate efforts in the first 60 days from the date of this order to collect input from fishermen, regional ocean councils, fishery management councils, scientists, and other stakeholders on how to make fisheries and protected resources more resilient to climate change, including changes in management and conservation measures, and improvements in science, monitoring, and cooperative research.

The full text of Executive Order 14008 is available here and will be posted as a supplemental document under Tab 5 on the April 2021 Meeting Page.

## 2021 State of the Ecosystem Mid-Atlantic

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## Performance Relative to Fishery Management Objectives

Trends and status of indicators related to broad, ecosystem-level fishery management objectives, with implications for the Mid-Atlantic Fishery Management Council (MAFMC)


## Risks to Meeting Fishery Management Objectives

## Climate and Ecosystem Productivity Risks

Climate change, most notably ocean warming, continues in the Mid-Atlantic and is affecting the ecosystem in various ways:

- Surfclams and ocean quahogs drive trends in Mid-Atlantic commercial revenue, but are vulnerable because of their sensitivity to warming ocean temperatures and ocean acidification. New observations show that acidification in surfclam summer habitat is approaching, but not yet at, levels affecting surf clam growth.
- Warmer-than-average 2020 winter water temperatures in Chesapeake Bay likely helped blue crabs, but hurt striped bass numbers.
- New habitat climate vulnerability analysis links black sea bass, scup, and summer flounder to several highly vulnerable nearshore habitats from salt marsh through shallow estuarine and marine reefs.

- The Mid-Atlantic had frequent ocean heatwaves in 2020.
- Increased primary productivity in summer continues, but is from smaller species that are less likely to increase fish productivity.
- Temperature and zooplankton changes impact fish condition for different species, impacts to fisheries and markets are under investigation.
- Apex predator populations are stable (sharks) to increasing (gray seals).


## Other Ocean Uses: Offshore Wind Risks

More than 20 offshore wind development projects are proposed for construction over the next decade in the Northeast, covering more than 1.7 million acres by 2030. The development of multiple offshore wind sites in the Mid-Atlantic pose a number of risks and impacts to fisheries including:

- If all sites are developed, $2-24 \%$ of total average revenue could be displaced for major Mid-Atlantic species in lease areas.
- Displaced fishing effort can alter fishing methods, which can in turn change habitat, species (managed and protected), and fleet interactions.
- Right whales may be displaced, and altered local oceanography could affect distribution of their zooplankton prey.
- Current plans for rapid buildout in a patchwork of areas spreads the impacts differentially throughout the region.
- Scientific surveys collecting data for ocean and ecosystem conditions, fish, and protected species will be altered, potentially increasing uncertainty for management decision-making.

COVID-19 affected both fisheries and data collection in 2020 (see the NOAA Fisheries economic assessment of COVID-19 effects on the U.S. fishing and seafood industry report). We will continue to evaluate the impacts in the Northeast for future SOE reports.

## Characterizing Ecosystem Change

## Multiple System Drivers

The Northeast shelf ecosystem is changing, which is affecting the services that the ecosystem provides. To illustrate how multiple factors are driving change in this complex ecosystem we are using three overarching concepts: multiple system drivers, regime shifts, and ecosystem reorganization. Societal,
 biological, physical and chemical factors comprise the multiple system drivers that influence marine ecosystems through a variety of different pathways.

## Regime Shift

These drivers affect fishery management objectives such as seafood production and recreational opportunities, as well as other ecosystem services we derive from the ocean. Changes in the multiple drivers can lead to regime shifts - large, abrupt and persistent changes in the structure and function of an ecosystem. Regime shifts and changes in how the multiple system drivers interact can result in ecosystem reorganization as species and humans respond and adapt to the new environment.

# State of the Ecosystem 2021: Mid-Atlantic 

## Introduction

## About This Report

This report is for the Mid-Atlantic Fishery Management Council (MAFMC). The purpose of this report is to synthesize ecosystem information to better meet fishery management objectives, and to update the MAFMC's Ecosystem Approach to Fishery Management (EAFM) risk assessment. The major messages of the report are synthesized on pages 1 and 2, and synthesis themes are illustrated on page 3 . The information in this report is organized into two sections; performance measured against ecosystem-level management objectives (Table 1), and potential risks to meeting fishery management objectives (climate change and other ocean uses).

## Report structure

The two main sections contain subsections for each management objective or potential risk. Within each subsection, we first review indicator trends, and the status of the most recent year relative to a threshold (if available) or relative to the long-term average. Second, we synthesize results of other indicators and information to outline potential implications for management (i.e., connecting indicator(s) status to management and why an indicator(s) is important). For example, if there are multiple drivers related to an indicator trend, which drivers may be more or less supported by current information, and which, if any, can be affected by management action? Similarly, which risk indicators warrant continued monitoring to evaluate whether regime shifts or ecosystem reorganization are likely? We emphasize that these implications are intended to represent testable hypotheses at present, rather than "answers," because the science behind these indicators and syntheses continues to develop.
A glossary of terms ${ }^{1}$, detailed technical methods documentation ${ }^{2}$ and indicator data ${ }^{3}$ are available online. The details of standard figure formatting (Fig. 51a), categorization of fish and invertebrate species into feeding groups (Table 2), and definitions of ecological production units (EPUs, including the Mid-Atlantic Bight, MAB; Fig. 51b) are provided at the end of the document.

Table 1: Ecosystem-scale fishery management objectives in the Mid-Atlantic Bight

| Objective Categories | Indicators reported here |
| :--- | :--- |
| Provisioning and Cultural Services |  |
| Seafood Production | Landings; commercial total and by feeding guild; recreational harvest |
| Profits | Revenue decomposed to price and volume |
| Recreation | Days fished; recreational fleet diversity |
| Stability | Diversity indices (fishery and ecosystem) |
| Social \& Cultural | Community engagement/reliance status |
| Protected Species | Bycatch; population (adult and juvenile) numbers, mortalities |
| Supporting and Regulating Services |  |
| Biomass |  |
| Productivity | Biomass or abundance by feeding guild from surveys |
| Trophic structure | Condition and recruitment of managed species, Primary productivity |
| Habitat | Estuarine and offshore habitat conditions |

## Performance relative to fishery management objectives

In this section, we examine indicators related to broad, ecosystem-level fishery management objectives. We also provide hypotheses on the implications of these trends - why we are seeing them, what's driving them, and potential or observed regime shifts or changes in ecosystem structure. Identifying multiple drivers, regime shifts, and potential changes to ecosystem structure, as well as identifying the most vulnerable resources, can help managers determine whether we can do anything differently to meet objectives and how to prioritize for upcoming issues/risks.

[^46]
## Seafood Production

Indicators: Landings; total and by feeding guild
All seafood landed by commercial fisheries (total landings) and MAFMC's managed species landings (a subset of the total) continue to trend downward in the MAB (Fig. 1). The downward trend is most significant in the benthos (clams) group (Fig. 2).


Figure 1: Total commercial seafood landings (black) and Mid-Atlantic managed seafood landings (red).


Figure 2: Total commercial landings (black) and MAFMC managed species landings (red) by feeding guild.

Total recreational harvest (retained fish presumed to be eaten) is also down in the MAB (Fig. 3).


Figure 3: Total recreational seafood harvest (millions of fish) in the Mid-Atlantic region.

Recreational shark landings show an increase in pelagic sharks over the past decade, with a sharp decrease in 2018 and 2019 (Fig 4). This is likely influenced by regulatory changes implemented in 2018 intended to rebuild shortfin mako stocks.


Figure 4: Recreational shark landings from Large Pelagics Survey.

Aquaculture production is not yet included in total seafood landings, but we are working toward including it in future reports. Available aquaculture production of oysters for a subset of Mid-Atlantic states is trending upward. ${ }^{4}$

## Implications

Declining commercial and recreational landings can be driven by many interacting factors, including combinations of ecosystem and stock production, management actions, market conditions, and environmental change. While we cannot evaluate all possible drivers at present, here we evaluate the extent to which ecosystem overfishing (total landings exceeding ecosystem productive capacity), stock status, and system biomass trends may play a role.

Ecosystem Overfishing Indices Thresholds for ecosystem-level overfishing based on system production characteristics have been proposed [1], and are applied here for the MAB. The proposed ecosystem overfishing thresholds are calculated based on total catch while our preliminary indicators are based on commercial landings. Therefore, our current indicators are underestimated compared with the proposed thresholds. In future reports we may be able to include commercial discards and recreational removals to evaluate total catch.

Based on either the ratio of total landings to total primary production (Fogarty Index, Fig. 5), or total landings per unit area (Ryther Index, Fig. 6), MAB landings are at or below the proposed thresholds, so ecosystem overfishing is unlikely to be a major factor driving decreased landings.

[^47]Fogarty Index


Figure 5: Fogarty Index; the ratio of total landings to total primary production in the MAB. Link and Watson (2019) give an optimal range (green shading) of the Fogarty ratio of 0.22 to 0.92 parts per thousand (PPT). Previous work suggested that index values exceeding 1 to 2 PPT (orange shading) led to ecosystem tipping points.


Figure 6: Ryther index; total landings presented on a unit area basis for the MAB. Theoretical estimates (Link and Watson, 2019) imply the index should range from $0.3-1.1 \mathrm{mt}$ per sq km annually (green shading) with a limit of 3 mt per sq km annually, above which tipping points could occur in fished ecosystems (orange shading). Expected system-wide MSYs can be in the range of 1 to 3 mt per sq km (unshaded).

The amount of potential yield we can expect from a marine ecosystem depends on the amount of production entering at the base of the food web, primarily in the form of phytoplankton; the pathways this energy follows to reach harvested species; the efficiency of transfer of energy at each step in the food web; and the fraction of this production that is removed by the fisheries. The fraction of production removed by fisheries has declined since the late 1990s (Fig. 7). The overall trend is largely driven by the decrease in landings with an increase in primary production over the same period. Current fisheries remove a lower proportion of the ecosystem's primary production now than in the 1970s, when the Fogarty and Ryther indices suggest that ecosystem overfishing may have occurred.


Figure 7: Primary production required to support MAB commercial landings. Included are the top species accounting for $80 \%$ of the landings in each year, with $15 \%$ transfer efficiency assumed between trophic levels. PPD is total primary production. The solid line is based on satellite-derived PPD and the dashed line is based on primary production reconstructed using the mean of satellite-derived PPD from 1998-2010.

Stock Status Single species management objectives of maintaining biomass above minimum thresholds and fishing mortality below limits are being met for all but two MAFMC managed species, though the status of six stocks is unknown (Fig. 8). Therefore, stock status and associated management constraints are unlikely to be driving decreased landings. To better address the role of management in future reports, we could examine how the total allowable catch (TAC) and the percentage of the TAC taken for each species has changed through time.


Figure 8: Summary of single species status for MAFMC and jointly federally managed stocks (Goosefish and Spiny dogfish). Stocks in green are below the biomass threshold (overfished), stocks in orange are above the biomass threshold but below the biomass target, and stocks in purple are above the biomass target. Only one stock, Atlantic mackerel, has fishing mortality above the limit (subject to overfishing).

System Biomass Although aggregate biomass trends derived from scientific resource surveys are mostly stable in the MAB, spring piscivores and fall benthos show long-term increases (Fig. 9). The NEAMAP Fall 2020 survey was completed and is included here; NEFSC surveys were not completed in 2020. While managed species make up varying proportions of aggregate biomass, trends in landings are not mirroring shifts in the overall trophic structure of survey-sampled fish and invertebrates. Therefore, major shifts in feeding guilds or ecosystem trophic structure are unlikely to be driving the decline in landings.


Figure 9: Spring (left) and fall (right) surveyed biomass in the Mid-Atlantic Bight. Data from the NEFSC Bottom Trawl Survey are shown in black, with NEAMAP shown in red. The shaded area around each annual mean represents 2 standard deviations from the mean.

Effect on Seafood Production Because ecosystem overfishing seems unlikely, stock status is mostly acceptable, and aggregate biomass trends appear stable, the decline in commercial landings is most likely driven by market dynamics affecting the landings of surfclams and ocean quahogs, as landings have been below quotas for these species.
Climate change also seems to be shifting the distribution of surfclams and ocean quahogs, resulting in areas with overlapping distributions and increased mixed landings. Given the regulations governing mixed landings, this could become problematic in the future and is currently being evaluated by the Council.

The decline in recreational seafood landings stems from other drivers. Some of the decline, such as that for recreational shark landings, is driven by management intended to reduce fishing mortality on mako sharks. However, NOAA Fisheries' Marine Recreational Information Program survey methodology was updated in 2018, so it is unclear whether the record-low landings for species other than sharks in 2018 are driven by changes in fishing behavior or the change in the survey methodology.
Other environmental changes require monitoring as they may become important drivers of landings in the future:

- Climate is trending into uncharted territory. Globally, 2020 was tied with the warmest year on record ${ }^{5}$ with regional marine heatwaves apparent (see Climate Risks section).

[^48]- Stocks are shifting distribution, moving towards the northeast and into deeper waters throughout the Northeast US Large Marine Ecosystem (Fig. 10).



Figure 10: Aggregate species distribution metrics for species in the Northeast Large Marine Ecosystem.

- Some ecosystem composition and production changes have been observed (see Stability section).
- Fishing engagement has declined in some communities (see Social Vulnerability section).


## Commercial Profits

## Indicators: revenue (a proxy for profits), with price and volume components

Total commercial revenue (black) has increased over the long term, but the trend may be reversing, with recent total revenue below the long-term average (Fig. 11). The MAFMC-managed species revenue (red) has continued its downward trend, with recent years near a time-series low.

Total revenue


Figure 11: Total revenue for the region (black) and revenue from MAFMC managed species (red).

Revenue earned by harvesting resources is a function of both the quantity landed of each species and the prices paid for landings. Beyond monitoring yearly changes in revenue, it is even more valuable to determine what drives these changes: harvest levels, the mix of species landed, price changes, or a combination of these. The Bennet Indicator decomposes revenue change into two parts, one driven by changing quantities (volumes), and a second driven by changing prices.

Total revenue trends, decomposed to price and volume indicators (Fig. 12), mirror price and volume indicator trends for the benthos (clams; orange in Fig. 13) group, especially over the past decade.


Figure 12: Revenue change from the 2015 values in dollars (black), Price (PI), and Volume Indicators (VI) for commercial landings in the Mid-Atlantic Bight.


Figure 13: Total component value in dollars (black) for commercial landings in the Mid-Atlantic Bight.

## Implications

The Bennet indicator demonstrates that increasing total revenue early in the time series is due to increasing quantities landed, which offset declining prices. Recent declines in prices contributed to falling revenue as quantities landed did not increase enough to counteract declining prices.

Changes in other indicators, particularly those driving landings and those related to climate change, require monitoring as they may become important drivers of revenue in the future; for example:

- Surfclams and ocean quahogs are sensitive to warming ocean temperatures and ocean acidification.
- Acidification levels in surfclam summer habitat are approaching, but not yet at, levels affecting surfclam growth (see Climate Risks section).


## Recreational Opportunities

## Indicators: Angler trips, fleet diversity

Recreational effort (angler trips) has no significant long term trend, with current effort near the long-term average (Fig. 14). However, recreational fleet diversity has declined over the long term (Fig. 15).


Figure 14: Recreational effort in the Mid-Atlantic.


Figure 15: Recreational fleet effort diversity in the Mid-Atlantic.

## Implications

The absence of a long-term trend in recreational effort suggests relative stability in the overall number of recreational opportunities in the MAB. However, the decline in recreational fleet diversity suggests a potentially reduced range of opportunities.
The downward effort diversity trend is driven by party/charter contraction (from a high of $24 \%$ of angler trips to $7 \%$ currently), and a shift toward shorebased angling. Effort in private boats remained stable between $36-37 \%$ of angler trips across the entire series.
Changes in recreational fleet diversity can be considered when managers seek options to maintain recreational opportunities. Shore anglers will have access to different species than vessel-based anglers, and when the same species, typically smaller fish. Many states have developed shore-based regulations where the minimum size is lower than in other areas and sectors to maintain opportunities in the shore angling sector.

## Stability

## Indicators: fishery fleet and catch diversity, ecological component diversity

While there are many potential metrics of stability, we use diversity indices as a first check to evaluate overall stability in fisheries and ecosystems. In general, diversity that remains constant over time suggests a similar capacity to respond to change over time. A significant change in diversity over time does not necessarily indicate a problem or an improvement, but does indicate a need for further investigation. We examine commercial and recreational fleet and species catch diversity, and diversity in zooplankton, larval, and adult fish.

Fishery Diversity Diversity estimates have been developed for fleets and species landed by commercial vessels with Mid-Atlantic permits. A fleet is defined here as the combination of gear type (Scallop Dredge, Other Dredge, Gillnet, Hand Gear, Longline, Bottom Trawl, Midwater Trawl, Pot, Purse Seine, or Clam Dredge) and vessel length category (Less than 30 ft , 30 to 50 ft , 50 to 75 feet, 75 ft and above). Commercial fishery fleet count and fleet diversity have
been stable over time in the MAB, with current values near the long-term average (Fig. 16). This indicates similar commercial fleet composition and species targeting opportunities over time.


Figure 16: Fleet diversity and fleet count in the Mid-Atlantic.

Commercial fisheries are relying on fewer species relative to the mid-90s, but current species revenue diversity has been consistent since then and is currently near the long term average (Fig. 17).


Figure 17: Species revenue diversity in the Mid-Atlantic.

As noted above recreational fleet effort diversity is unstable (declining; Fig. 15). However, recreational species catch diversity is stable and has been at or above the long term average in 7 of the last 10 years (Fig. 18).

Rec. diversity of catch


Figure 18: Diversity of recreational catch in the Mid-Atlantic.

Ecological Diversity Ecological diversity indices show mixed trends. Zooplankton diversity is increasing in the MAB (Fig. 19). Adult fish diversity is measured as the expected number of species in a standard number of individuals sampled from the NEFSC bottom trawl survey. There is no vessel correction for this metric, so indices collected aboard the research vessel Albatross IV (up to 2008) and research vessel Bigelow (2009-present) are calculated separately. Larval fish and adult fish diversity indices are stable over time, with current values near the long-term average (Figs. 20, 21).


Figure 19: Zooplankton diversity in the Mid-Atlantic Bight, based on Shannon diversity index.


Figure 20: Larval fish diversity in the Mid-Atlantic Bight, based on Shannon diversity index.


Figure 21: Adult fish diversity the Mid-Atlantic Bight, based on expected number of species.

## Implications

Fleet diversity indices are used by the MAFMC to evaluate stability objectives as well as risks to fishery resilience and maintaining equity in access to fishery resources [2].

Stability in commercial fleet diversity metrics suggests stable capacity to respond to the current range of fishing opportunities.
Declining recreational fleet effort diversity, as noted above, indicates that the party/charter boat sector continues to contract, with shoreside angling becoming more important, as a percentage of recreational days fished.
Stability in recreational species catch diversity has been maintained by a different set of species over time. A recent increase in Atlantic States Marine Fisheries Commission (ASMFC) and South Atlantic Fishery Management Council (SAFMC) managed species in recreational catch is helping to maintain diversity in the same range that MAFMC and New England Fishery Management Council (NEFMC) species supported in the 1990s.

Ecological diversity indices can provide insight into ecosystem structure. Changes in ecological diversity over time may indicate altered ecosystem structure with implications for fishery productivity and management [3].

Increasing zooplankton diversity is driven by the declining dominance of the calanoid copepod Centropages typicus, with a similar composition of other zooplankton species.
Stable larval and adult fish diversity indicates the same overall number and evenness over time, but doesn't rule out species substitutions (e.g., warm-water replacing cold-water). While larval fish diversity is near the long-term mean, the dominance of a few warm-water taxa has increased. Stable but variable larval diversity can indicate interannual changes in a dominant species.
In the MAB, existing diversity indicators suggest overall stability in the fisheries and ecosystem components examined. However, declining recreational fleet diversity suggests a potential loss in the range of recreational fishing opportunities, and increasing zooplankton diversity is due to the declining dominance of an important species, suggesting change in the zooplankton community that warrants continued monitoring to determine if managed species are affected.

## Social Vulnerability

## Indicators: Social vulnerability in commercial and recreational fishing communities

Social vulnerability measures social factors that shape a community's ability to adapt to change and does not consider gentrification pressure (see detailed definitions). Communities that ranked medium-high or above for one or more of the following indicators: poverty, population composition, personal disruption, or labor force structure, are highlighted in red.

Commercial fishery engagement measures the number of permits, dealers, and landings in a community, while reliance expresses these numbers based on the level of fishing activity relative to the total population of a community. In 2020, we reported that the number of highly engaged Mid-Atlantic commercial fishing communities had declined
over time, and engagement scores had also declined in medium-highly engaged communities. Here we focus on the top ten most engaged, and top ten most reliant commercial fishing communities and their associated social vulnerability (Fig. 22). Barnegat Light and Cape May, NJ, and Reedville, VA are highly engaged and reliant with medium-high to high social vulnerability.

Social Vulnerability in Top Commercial Fishing Communities


Figure 22: Commercial engagement, reliance, and social vulnerability for the top commercial fishing communities in the Mid-Atlantic.

Recreational fishery engagement measures shore, private vessel, and for-hire fishing activity while reliance expresses these numbers based on fishing effort relative to the population of a community. Of the nine recreational communities that are most engaged and reliant, Avon, Ocracoke and Hatteras, NC and Barnegat Light and Cape May, NJ scored medium-high or above for social vulnerability (Fig. 23).

Both commercial and recreational fishing are important activities in Montauk, NY; Barnegat Light, Cape May, and Point Pleasant Beach, NJ; and Ocracoke and Rodanthe, NC, meaning some of these communities may be impacted simultaneously by commercial and recreational regulatory changes. Of these communities, three scored medium-high or above for social vulnerability.

Social Vulnerability in Top Recreational Fishing Communities


Figure 23: Recreational engagement, reliance, and social vulnerability for the top recreational fishing communities in the Mid-Atlantic.

## Implications

These plots provide a snapshot of the relationship between social vulnerability and the most highly engaged and most highly reliant commercial and recreational fishing communities in the Mid-Atlantic. Similar plots are used to inform the annual California Current Ecosystem Status Report. These communities may be vulnerable to changes in fishing patterns due to regulations and/or climate change. When any of these communities are also experiencing social vulnerability, they may have lower ability to successfully respond to change. These indicators may also point to communities that are vulnerable to environmental justice issues. Additional analysis related to ecosystem shifts and National Standard 8 of the Magnuson-Stevens Act is ongoing.

## Protected Species

Protected species include marine mammals protected under the Marine Mammal Protection Act, endangered and threatened species protected under the Endangered Species Act, and migratory birds protected under the Migratory Bird Treaty Act. In the Northeast U.S., endangered/threatened species include Atlantic salmon, Atlantic and shortnose sturgeon, all sea turtle species, and five baleen whales. Fishery management objectives for protected species generally focus on reducing threats and on habitat conservation/restoration. Here we report on the status of these actions as well as indicating the potential for future interactions driven by observed and predicted ecosystem changes in the Northeast U.S. region. Protected species objectives include managing bycatch to remain below potential biological removal (PBR) thresholds, recovering endangered populations, and monitoring unusual mortality events (UMEs).

## Indicators: bycatch, population (adult and juvenile) numbers, mortalities

Average indices for both harbor porpoise (Fig. 24) and gray seal bycatch (Fig. 25) are below current PBR thresholds, meeting management objectives. However, the 2019 bycatch estimate for gray seals was highest in the time series.


Figure 24: Harbor porpoise average bycatch estimate for Mid-Atlantic and New England fisheries (blue) and the potential biological removal (red). 2019 estimates are preliminary.


Figure 25: Gray Seal average bycatch estimate for New England gillnet fisheries (blue) and and the potential biological removal (red). 2019 estimates are preliminary.

The North Atlantic right whale population was on a recovery trajectory until 2010, but has since declined (Fig. 26). Reduced survival rates of adult females and diverging abundance trends between sexes have also been observed. It is estimated that there are only about 100 adult females remaining in the population.


Figure 26: Estimated North Atlanic right whale abundance on the Northeast Shelf.

North Atlantic right whale calf counts have also been declining (Fig. 27). In 2018 there were zero observed new calves, and a drop in annual calves roughly mirrors the abundance decline, however seven new calves were born in 2019. Preliminary 2020 observations of 12 calves have been recorded as of January 2021.


Figure 27: Number of North Atlantic right whale calf births, 1990-2019.

This year, four Unusual Mortality Events (UMEs) continued, three for large whales (North Atlantic right whales, humpback whales, and minke whales) and one for gray and harbor seals.
Since 2017, the total UME right whale mortalities includes 32 dead stranded whales, 11 in the US and 21 in Canada. When alive but seriously injured whales (14) are taken into account, 46 individual whales are included in the UME. During 2020, two mortalities were documented, however, recent research suggests that many mortalities go unobserved and the true number of mortalities are about three times the count of the observed mortalities [4]. The primary cause of death is "human interaction" from entanglements or vessel strikes.

Coastal bottlenose dolphin stocks off North Carolina and Virginia are listed as depleted, so a take reduction team met in 2019 and has been evaluating and implementing some of the team's consensus recommendations.

Also, a UME for both gray and harbor seals was declared in 2018 due to a high number of mortalities thought to be caused by phocine distemper virus.

## Implications

Bycatch management measures have been implemented to maintain bycatch below Potential Biological Removal (PBR) thresholds. The downward trend in harbor porpoise bycatch can also be due to a decrease in harbor porpoise abundance in US waters, reducing their overlap with fisheries, and a decrease in gillnet effort. The increasing trend in gray seal bycatch may be related to an increase in the gray seal population (U.S. pup counts).
The number of gray seals in U.S. waters has risen dramatically in the last three decades. Based on a survey conducted in 2016, the size of the gray seal population in the U.S. during the breeding season was approximately 27,000 animals, while in Canada the population was estimated to be roughly 425,000 . A survey conducted in 2021 in both countries will provide updated estimates of abundance. The population in Canada is increasing at roughly $4 \%$ per year, and
contributing to rates of increase in the U.S., where the number of pupping sites has increased from 1 in 1988 to 9 in 2019. Mean rates of increase in the number of pups born at various times since 1988 at four of the more data-rich pupping sites (Muskeget, Monomoy, Seal, and Green Islands) ranged from no change on Green Island to high rates increase on the other three islands, with a maximum increase of $26.3 \% ~(95 \% \mathrm{CI}: 21.6-31.4 \%$; [5] and see Figure in New England SOE report). These high rates of increase provide further support for the hypothesis that seals from Canada are continually supplementing the breeding population in U.S. waters.

Strong evidence exists to suggest that interactions between right whales and the offshore lobster gear in the U.S. and snow crab gear in Canada is contributing substantially to the decline of the species. Further, right whale distribution has changed since 2010. New research suggests that recent climate driven changes in ocean circulation have resulted in right whale distribution changes driven by increased warm water influx through the Northeast Channel, which has reduced the primary right whale prey (Calanus finmarchicus) in the central and eastern portions of the Gulf of Maine [6-8].
The UMEs are under investigation and are likely the result of multiple drivers. For all three large whale UMEs, human interaction appears to have contributed to increased mortalities, although investigations are not complete. An investigation into the cause of the seal UME so far suggests phocine distemper virus as a potential cause.

A marine mammal climate vulnerability assessment is currently underway for Atlantic and Gulf of Mexico populations and will be reported on in future versions of this report.

## Risks to meeting fishery management objectives

## Climate and Ecosystem Productivity

## Climate Change Indicators: ocean currents, temperature, heatwaves, acidification

Regional ocean current indicators remain at unprecedented levels. In 2019, the Gulf Stream was at its most northern position since 1993 (Fig. 28). A more northerly Gulf Stream position is associated with warmer ocean temperature on the Northeast US shelf [9], a higher proportion of Warm Slope Water in the Northeast Channel, and increased sea surface height along the U.S. east coast [10].


Figure 28: Index representing changes in the location of the Gulf Stream north wall. Positive values represent a more northerly Gulf Stream position.

In 2019, we also observed the second lowest proportion of Labrador Slope Water entering the Gulf of Maine since 1978 (Fig. 29). The changing proportions of source water affect the temperature, salinity, and nutrient inputs to the Gulf of Maine ecosystem.


Figure 29: Proportion of Warm Slope Water (WSW) and Labrador Slope Water (LSLW) entering the GOM through the Northeast Channel.

Ocean temperatures continue to warm at both the bottom (Fig. 30) and the surface (Fig. 31). Warming is not seasonally uniform, however: spring 2020 was cooler than average on portions of the shelf.


Figure 30: Annual bottom temperature in the Mid-Atlantic Bight. (black $=$ in situ observations, red $=$ observations assimilated by ocean model for comparison)

SST anomaly (2020)


Figure 31: MAB seasonal sea surface temperature (SST) time series overlaid onto 2020 seasonal spatial anomalies.

The Chesapeake Bay also experienced a warmer-than-average winter and a cooler-than-average spring in 2020, relative to the previous decade. Water temperatures returned to average during the summer and were slightly above average from October through December, as measured by both satellites and bouys (Fig. 32).

## Chesapeake Bay Water Temperature 2020 Anomalies

Multisatellite Sea Surface Temperature Composite



Figure 32: Left panel: Chesapeake Bay sea surface temperature (SST) seasonal spatial anomalies for 2020, from NOAA multisatellite SST composite. Positive values (red) above 2008-2019 average; negative values (blue) below 2008-2019 average. A) Jan, Feb, Mar; B) Apr, May, Jun; C) Jul, Aug, Sep; D) Oct, Nov, Dec. Right panel: NOAA Chesapeake Bay Interpretive Buoy System Gooses Reef bouy sea water temperature; Blue $=2020$, red $=$ Long term average 2010-2019.

A marine heatwave is a warming event that lasts for five or more days with sea surface temperatures above the 90th percentile of the historical daily climatology (1982-2011) [11]. The MAB experienced frequent ocean heatwaves of moderate intensity in 2020 that extended well into December (Fig. 33), similar to warming observed in Chesapeake Bay (Fig. 32).


Figure 33: Marine heatwave events (red) in the Mid-Atlantic occuring in 2020.

Changes in ocean temperature and circulation alter habitat features such as the cold pool, a $20-60 \mathrm{~m}$ thick band of cold, relatively uniform near-bottom water that persists from spring to fall over the mid-shelf and outer shelf of the Middle Atlantic Bight (MAB) and Southern Flank of Georges Bank [12]. The cold pool plays an essential role in the structuring of the MAB ecosystem. It is a reservoir of nutrients that feeds phytoplankton productivity, is essential fish spawning and nursery habitat, and affects fish distribution and behavior [12]. The average temperature of the cold pool has been getting warmer over time [13]). These changes can affect distribution and migration timing for species that depend on the cold pool habitat. The area of the MAB cold pool was near average in 2018 (Fig. 34), the last complete year of the dataset. The size of the cold pool varies annually, with the smallest sizes associated with record-warm years (e.g. 2012). The cold pool temperature shows a similar variation as its extent, both of which are strongly impacted by each early spring setting in temperature on the shelf.


Figure 34: Map of cold pool area. Time series of cold pool spatial extent from1993-2018. Black $=2018$ (Last year in time series), Red $=2012$ Minimum area, Blue $=2005$ Maximum area .

New glider-based observations revealed areas of low $\mathrm{pH}(7.8)$ during summer in Mid-Atlantic habitats occupied by Atlantic surfclams and sea scallops (Fig. 35) [14]. This seasonal pH minimum is associated with cold-pool subsurface and bottom water, which is cut off from mixing with surface water by strong stratification. However, seawater pH in shelf waters increased during the fall mixing period due to the influence of a slope water mass characterized by warm, salty, highly alkaline seawater. Lower pH in nearshore waters is likely associated with freshwater input.


Figure 35: Seasonal glider-based pH observations on the Mid-Atlantic Bight shelf (New Jersey cross-shelf transect) in relation to Atlantic surfclam and Atlantic sea scallop habitats (modified from Wright-Fairbanks et al. 2020).

## Ecosystem Productivity Indicators: primary production, zooplankton, forage fish, fish condition

Increased temperatures, as reported above, can increase the rate of photosynthesis by phytoplankton (i.e. primary productivity). Annual primary production has increased over time, primarily driven by increased productivity in the summer months (Figs. 36, 37).

Monthly median PPD


Figure 36: Monthly primary production trends show the annual cycle (i.e. the peak during the summer months) and the changes over time for each month.

Larger-than-average phytoplankton blooms were observed from late fall into winter in 2020 (Fig. 37).
Primary production


Chlorophyll a


Figure 37: Weekly chlorophyll concentrations and primary productivity in the Mid-Atlantic are shown for by the colored line for 2020 (dashed portion indicates preliminary data from a new satellite source). The long-term mean is shown in black and shading indicates $+/-1$ sample SD.
dominated by smaller (pico and nano) size classes (Fig. 38). This implies less efficient transfer of primary production to higher trophic levels.

## Mid-Atlantic Bight Phytoplankton Size Class



Figure 38: The annual climatology (1998-2019) percent composition of the phytoplankton size classes in the Mid-Atlantic bight based on satellite observations.

Trends in gelatinous zooplankton and krill are the same across ecological production units (EPUs) as last year (data were updated to 2019; Fig. 39). There has been a long term increase in both groups on Georges Bank and for krill in the Gulf of Maine as well.


Figure 39: Stratified abundance of cnidarians and euphausiids in Mid-Atlantic Bight.

Larger zooplankton (i.e. Calanus finmarchicus) had above average abundance in 2018-2019, while smaller-bodied copepods were near or below average (Fig. 40).


Figure 40: Large (red) and small-bodied (blue) copepod abundance in the Mid-Atlantic Bight.

An index of aggregate zooplankton and forage fish fluctuations (forage anomaly) constructed from zooplankton and
ichthyoplankton data has no apparent trend in MAB, but appears to be more variable since 2010 (Fig. 41). Changes in environmental conditions, lower tropic levels, and diversity of the plankton community are potentially impacting the prey of zooplankton and ichthyoplankton, which may affect this index.


Figure 41: Changes from 2000-2019 average abundance for an aggregate of 13 zooplankton and 16 ichthyoplankton groups sampled on NEFSC ECOMON surveys.

Nutritional value (energy content) of juvenile and adult forage fishes as prey is related to both environmental conditions, fish growth and reproductive cycles. Forage energy density measurements from NEFSC trawl surveys 2017-2019 are building toward a time series to evaluate trends (Fig. 42). New 2019 measurements were consistent with last year's report: the energy density of Atlantic herring was almost half the value ( $5.69+/-0.07 \mathrm{~kJ} / \mathrm{g}$ wet weight) reported in earlier studies ( $10.6-9.4 \mathrm{~kJ} / \mathrm{g}$ wet weight). Silver hake, sandlance, longfin squid (Loligo below) and shortfin squid (Illex below) were also lower than previous estimates [15,16]. Energy density of alewife, butterfish and Atlantic mackerel varies seasonally, with seasonal estimates both higher and lower than estimates from previous decades.


Figure 42: Forage fish mean energy density mean and standard deviation by season and year, compared with 1980s (Steimle and Terranove 1985) and 1990s (Lawson et al. 1998) values.

The health and well being of individual fish can be related to body shape condition indices (i.e. weight at a given length) such as relative condition index, which is the ratio of observed weight to predicted weight based on length [17]. Heavier and fatter fish at a given length have higher relative condition which is expected to influence growth,
reproductive output and survival. A pattern of generally good condition was observed across many MAB species prior to 2000 , followed by a period of generally poor condition from 2001-2010, with a mix of good and poor condition 2011-2019 (Fig. 43). While there were no new data to update the condition indicator this year, preliminary results of synthetic analyses described in the Implications section show that changes in fishing pressure, population size, temperature, and zooplankton influence the condition of different fish species. Potential links between fish condition, fisheries, and markets are under investigation.


Figure 43: Condition factor for fish species in the MAB based on fall NEFSC bottom trawl survey data. MAB data are missing for 2017 due to survey delays, and no survey was conducted in 2020.

## Ecosystem Structure Indicators: distribution shifts, diversity, predators

As noted in the Landings Implications section above, stocks are shifting distribution throughout the region. In aggregate, fish stocks are moving northeast along the shelf and into deeper waters.
Zooplankton diversity is increasing in the MAB, while larval fish and adult fish diversity indices are stable over time with current values near the long-term average (see Diversity Indicators section, above).

New indicators for shark populations, combined with information on gray seals (see Protected Species Implications section, above), suggests predator populations range from stable (sharks, Figs. 44, 45) to increasing (seals) in the MAB. Stable predator populations suggest stable predation pressure on managed species, but increasing predator populations may reflect increasing predation pressure.


Figure 44: Estimated number of sharks per unit effort from Northeast Fisheries Observer Program data.

recruitment success. The combined effects of warm winter temperatures and low flow in 2020 may be the primary cause of the low recruitment observed by the MDNR juvenile striped bass survey.

Conversely, warmer winter temperatures may have reduced overwintering mortality of Chesapeake Bay blue crabs. Calculations done by MDNR based on data from the annual bay-wide winter dredge survey indicate that blue crabs experienced the lowest overwintering mortality ever observed (2020 Chesapeake Bay Blue Crab Advisory Report). Previous studies have demonstrated the correlation between winter water temperature and blue crab survival in the Chesapeake Bay [21-23].

American oyster Increased salinity in the Chesapeake Bay often results in high juvenile oyster abundance [24]. In Maryland, the 2020 MDNR fall oyster survey documented above-average spatsets along the Eastern Shore as expected, given the high salinity. However, the Western Shore did not fare as well, suggesting that local environmental conditions are also important.

Summer flounder The NEAMAP survey saw a doubling of summer flounder catch in the near coastal waters in 2020 relative to 2019. It is more likely that environmental conditions made summer flounder more available in nearshore habitats and less likely that the population doubled between 2019 and 2020, but this remains to be confirmed and investigated along with habitat-specific information. In upcoming reports, we plan to integrate information on federally managed species in both Chesapeaky Bay (ChesMMAP) and NEAMAP surveys with nearshore environmental information to highlight interactions in these important habitats.

Surfclam Ocean acidification also has different implications, depending on the species and life stage. Recent lab studies have found that surfclams exhibited metabolic depression in a pH range of 7.46-7.28 [25]. In other bivalve species, metabolic depression happened between pH 7.38 and 7.14 for blue mussels [26] and around pH 7.1 for Pacific oysters [27]. At pH of 7.51 , short term experiments indicated that surfclams were selecting particles differently, which may have long term implications for growth [25]. Computer models would help in determining the long term implications of growth on surfclam populations. Data from about one year of observations (2018-2019) show that seasonal ocean pH has not yet reached the metabolic depression threshold observed for surfclams in lab studies so far; however, thresholds at different life stages, specifically larval stages that are typically more vulnerable to ocean acidification, have not yet been determined.

Heatwave impacts Marine heatwaves measure not just temperature, but how long the ecosystem is subjected to the high temperature. They are driven by both atmospheric and oceanographic factors and can have dramatic impacts on marine ecosystems. Marine heatwaves are measured in terms of intensity (water temperature) and duration (the cumulative number of degree days) using satellite measurements of daily sea surface temperature. Plotted below are maximum intensity and cumulative intensity, which is intensity times duration.
The MAB had multiple marine heatwaves in 2020 (Fig. 33). Although the individual maximum intensity heatwave on July 28 was near intensity average (for a heatwave), the combination of multiple heatwaves led to the third highest cumulative heatwave intensity on record in 2020 (Fig. 46). The strongest heatwaves on record in the Middle Atlantic Bight occurred in the winter of 2012 in terms of maximum intensity $\left(+5.13{ }^{\circ} \mathrm{C}\right.$ above average) and in the winter/summer of 2012 in terms of cumulative intensity ( $515^{\circ} \mathrm{C}$-days). 2012 is still the warmest year on record in the Northeast US LME. Recent papers published on the impacts of the 2012 heatwave give insight into the implications of marine heatwaves. Lobster was impacted as well as the timing of fishing and markets [28]. Other more southern warm water species have been observed in the MAB, including reports in 2020 of Cobia in the waters off of Rhode Island.


Figure 46: Marine heatwave cumulative intesity (left) and maximum intensity (right) in the Mid-Atlantic Bight.

Distribution shift impacts Trends for a suite of 48 commercially or ecologically important fish species along the entire Northeast Shelf continue to show movement towards the northeast and generally into deeper water (Fig. 10). We hope to expand this analysis beyond fish. Marine mammal distribution maps are available online ${ }^{7}$; updated maps and trends are currently being developed.

Shifting species distributions alter both species interactions and fishery interactions. In particular, shifting species distributions can alter expected management outcomes from spatial allocations and bycatch measures based on historical fish and protected species distributions.

Ecosystem productivity change impacts Climate and associated changes in the physical environment affect ecosystem productivity, with warming waters increasing the rate of photosynthesis at the base of the food web. However, increased summer production in the MAB may not translate to increased fish biomass because smaller phytoplankton dominate in this season.

While krill and large gelatinous zooplankton are increasing over time, smaller zooplankton are periodically shifting abundance between the larger, more nutritious Calanus finmarchicus and smaller bodied copepods with no apparent overall trend. Forage species are difficult to survey, but a new index that includes ichthyoplankton suggests high interannual variability in abundance of larval fish and zooplankton prey. The nutritional content of larger bodied forage fish and squid changes seasonally in response to ecosystem conditions, with apparent declines in energy density for Atlantic herring and Illex squid relative to the 1980s, but similar energy density for other forage species. Some of these factors are now being linked to the relative condition of managed fish.

Environmental drivers of fish condition Generalized Additive Models (GAMs) were used to test how measures of fishing pressure, stock abundance, and individual environmental variables performed in explaining the changes of fish condition (fatness) over time. Some species such as Acadian redfish, butterfish and winter flounder were more affected by fishing pressure and stock size, whereas other species such as weakfish, windowpane flounder, and American plaice may be more affected by local bottom temperatures and zooplankton.
These relationships can potentially provide insights on which species may be more vulnerable to environmental changes such as climate change, as well as what biomass changes may be expected from certain species given current environmental conditions.

Correlations were examined between environmental drivers, and as expected there were strong temperature correlations between seasons as well as correlations between temperature and zooplankton indices. Planned future work includes building full GAM models for each fish species, and linking fish condition to socio-economic models to assess whether fish condition impacts the market value generated by that species.

[^49]Potential economic impacts of fish condition Economic theory and empirical analyses have highlighted that many factors can affect the price of fish, including the total quantity of fish in the market (sometimes including internationally), increased demand around holidays, time the fish was in storage, and other issues that either affect the quality of the fish or the amount of fish available for purchase. We plan on empirically exploring whether fish condition is a quality metric that drives fish prices. Understanding the socio-economic impact of fish condition will help us more holistically understand the impacts of condition change on society, if any.

## Other Ocean Uses: Offshore Wind

Indicators: development timeline, revenue in lease areas, survey overlap
More than 20 offshore wind development projects are proposed for construction over the next decade in the Northeast (projects \& construction timelines based on Table E-4 of South Fork Wind Farm Draft Environmental Impact Statement). Offshore wind areas may cover more than 1.7 million acres by 2030 (Fig. 47). Just over 1,900 foundations and more than 3,000 miles of inter-array and offshore export cables are proposed to date. Each proposed project has a two-year construction timeline [29]. Based on current timelines, the areas affected would be spread out such that it is unlikely that any one particular area would experience full development at one time.


Figure 47: All Northeast Project areas by year construction ends (each project has 2 year construction period). Data for cumulative project areas, number of foundations, offshore cable area (acres) and offshore cable and interarray cable (mile) are displayed in the graph.

Based on vessel logbook data, average commercial fishery revenue from trips in the proposed offshore wind lease areas and the New York Bight Call Areas represented $2-24 \%$ of the total average revenue for each MAFMC managed fishery from 2008-2018 (Fig. 48).

The surfclam/ocean quahog fishery was the most affected fishery, with a maximum of $31 \%$ of annual fishery revenue occurring within potential wind lease areas during this period. The golden and blueline tilefish fisheries and spiny dogfish fishery were the least affected, at $3-4 \%$ maximum annual revenue affected, respectively. A maximum of $11 \%$ of the annual monkfish revenues were affected by these areas, with similar effects for the bluefish ( $10 \%$ ), summer flounder/scup/black sea bass (9\%), and mackerel/squid/butterfish (8\%) fisheries. The New York Bight Call Areas represented only $1-5 \%$ of total average fishery revenue from any fishery during 2008-2018, with the surfclam/ocean quahog fishery most affected.

Fishery Revenue in Wind Lease Areas


Figure 48: Wind energy revenue in the Mid-Atlantic

Proposed wind energy project areas and NY Bight Call Areas interact with the region's federal scientific surveys (Fig. 49). The total survey area overlap ranges from 1-14\% across ecosystem, shellfish, fish, shark, and protected species surveys. For example, the sea scallop survey will have significant overlap (up to $96 \%$ of individual strata) while the bottom trawl survey will have up to $60 \%$ overlap. Additionally, up to $50 \%$ of the southern New England North Atlantic right whale survey's area overlaps with proposed project areas.


Figure 49: Interaction of Greater Atlantic Fisheries Scientific Surveys and Offshore Wind Development

## Implications

Current plans for rapid buildout of offshore wind in a patchwork of areas spreads the impacts differentially throughout the region (Fig. 50).


Figure 50: Zoomed in areas with name of Project, number of foundations within each project area and the states that have declared power purchase agreements.

2-24\% of total average revenue for major Mid-Atlantic commerical species in lease areas could be displaced if all sites are developed. Displaced fishing effort can alter fishing methods, which can in turn change habitat, species (managed and protected), and fleet interactions.
Right whales may be displaced, and altered local oceanography could affect distribution of their zooplankton prey. Scientific data collection surveys for ocean and ecosystem conditions, fish, and protected species will be altered, potentially increasing uncertainty for management decision making.

## Contributors

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## Document Orientation

The figure format is illustrated in Fig 51a. Trend lines are shown when slope is significantly different from 0 at the $p$ $<0.05$ level. An orange line signifies an overall positive trend, and purple signifies a negative trend. To minimize bias introduced by small sample size, no trend is fit for $<30$ year time series. Dashed lines represent mean values of time series unless the indicator is an anomaly, in which case the dashed line is equal to 0 . Shaded regions indicate the past ten years. If there are no new data for 2018 , the shaded region will still cover this time period. The spatial scale of indicators is either coastwide, Mid-Atlantic states (New York, New Jersey, Delaware, Maryland, Virginia, North Carolina), or at the Mid-Atlantic Bight (MAB) Ecosystem Production Unit (EPU, Fig. 51b) level.


Figure 51: Document orientation. a. Key to figures. b.The Northeast Large Marine Ecosystem.

Fish and invertebrates are aggregated into similar feeding categories (Table 2) to evaluate ecosystem level trends in predators and prey.

Table 2: Feeding guilds and management bodies.

| Guild | MAFMC | Joint | NEFMC | State or Other |
| :---: | :---: | :---: | :---: | :---: |
| Apex <br> Predator | NA | NA | NA | bluefin tuna, shark uncl, swordfish, yellowfin tuna |
| Piscivore | bluefish, longfin squid, northern shortfin squid, summer flounder | goosefish, spiny dogfish | acadian redfish, atlantic cod, atlantic halibut, clearnose skate, little skate, offshore hake, pollock, red hake, silver hake, smooth skate, thorny skate, white hake, winter skate | fourspot flounder, john dory, sea raven, striped bass, weakfish, windowpane |
| Planktivore | atlantic mackerel, butterfish | NA | atlantic herring | alewife, american shad, blackbelly rosefish, blueback herring, cusk, longhorn sculpin, lumpfish, menhaden, northern sand lance, northern searobin, sculpin uncl |
| Benthivore | black sea bass, scup, tilefish | NA | american plaice, barndoor skate, crab,red deepsea, haddock, ocean pout, rosette skate, winter flounder, witch flounder, yellowtail flounder | american lobster, atlantic wolffish, blue crab, cancer crab uncl, chain dogfish, cunner, jonah crab, lady crab, smooth dogfish, spider crab uncl, squid cuttlefish and octopod uncl, striped searobin, tautog |
| Benthos | atlantic surfclam, ocean quahog | NA | sea scallop | blue mussel, channeled whelk, sea cucumber, sea urchin and sand dollar uncl, sea urchins, snails(conchs) |

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UNITED STATES DEPARTMENT OF COMMERCE National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE Northeast Fisheries Science Center
166 Water Street
Woods Hole, MA 02543-1026

22 March, 2021

Mid-Atlantic Fishery Management Council
800 North State Street, Suite 201
Dover, DE 19901
Scientific and Statistical Committee

To the Council,
In this memo we list the comments and requests received on the 2019 and 2020 State of the Ecosystem (SOE) reports, and how we responded to those requests. We include comments from both Councils because adjustments to the report were made in response to both. We welcome comments on whether this memo is useful and how to improve it for future SOE reporting.

The attached document includes a table where we summarize all comments and requests with sources. The Progress column briefly summarizes how we responded, with a more detailed response in the numbered Memo Section. In the Progress column, "SOE" indicates a change included in the report(s). In each detailed response, we refer to SOE pages where changes are found or describe information that was not sufficiently developed to include in the 2021 SOE in an effort to solicit feedback on how best to develop indicators for future reports.

We welcome comments on the entire SOE report as well as information included in this memo, and look forward to feedback from the SSC and Council.

Sincerely,


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Research Fishery Biologist
Ecosystem Dynamics and
Assessment Branch
Northeast Fisheries Science Center
encl: State of the Ecosystem 2021: Request Tracking Memo
cc: Jon Hare

## State of the Ecosystem 2021: Request Tracking Memo

## Introduction

In the table below we summarize all comments and requests with sources. The Progress column briefly summarizes how we responded, with a more detailed response in the numbered Memo Section. In the Progress column, "SOE" indicates a change included in the State of the Ecosystem (SOE) report(s).

| Request | Year | Source | Progress | Memo <br> Section |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Report card and summary <br> visualizations | 2019 | Both Councils | SOE new report card table and <br> summary visualizaitions of <br> synthesis themes | 1 |
| Ecosystem Overfishing indicators <br> (Link and Watson, 2019) | 2020 | Both Councils | SOE two ecosystem overfishing <br> indicators included | 2 |
| Primary production required, <br> interpretation of decline? | 2020 | Both Councils | SOE indicator reworked along with | 3 |
| Climate Change context |  |  |  |  |


| (continued) |  |  | Progress | Memo <br> Section |
| :--- | :--- | :--- | :--- | :--- |
| Request | Year | Source | 22 |  |
| Cumulative weather index | 2020 | MAFMC | in progress; data gathered for <br> prototype <br> in progress; student work needs <br> further analysis, no further work in | 23 |
| Management complexity | 2019 | MAFMC | 2020 <br> in progress; not ready for 2021 | 24 |
| in progress; not ready for 2021 | 25 |  |  |  |
| VAST and uncertainty | 2020 | Both Councils | 26 |  |
| Seal index | 2020 | MAFMC | unable to start in 2020 | 27 |
| Incorporate social sciences survey <br> from council | 2020 | NEFMC | unable to start in 2020 | 28 |
| Young of Year index from multiple <br> surveys <br> Biomass of spp not included in BTS <br> Estuarine condition relative to | 2019 | MAFMC | 2020 | MAFMC |

## Responses to comments

## 1 Report card and summary visualizations

Both Councils requested a "report card" style summary section with visualizations in 2019. We introduced a 2 page summary format in 2020 with a bulleted list of results on the first page and visualizations on the second. This year, the report was reorganized to more clearly link indicators with fishery management objectives and to better synthesize results across indicators, so the summary section was restructured accordingly. The 2021 summary pages include:

1. a report card style table summarizing status and trends of indicators linked to management objectives, combined with brief descriptions of implications for management synthesizing across multiple indicators in the report;
2. a bulleted list highlighting risks to meeting fishery management objectives, including those from climate change and those from wind energy development; and
3. visualizations of ecosystem synthesis themes integrated in the report, including multiple drivers of change, regime shifts, and ecosystem reorganization.

We welcome feedback on these revisions and suggestions for further refinements to make this summary more useful.

## 2 Ecosystem Overfishing indicators (Link and Watson, 2019)

Both Councils have requested more information on ecosystem thresholds and inflection points. This year we have calculated two ecosystem overfishing indicators with proposed thresholds [1] for each ecological production unit (EPU) on the northeast US shelf. We note the caveats with this analysis and request feedback on how the Councils would like to move forward with these indicators in the future:

1. The proposed ecosystem overfishing thresholds are calculated based on total catch while our preliminary indicators are based on commercial landings. Therefore, our current indicators are underestimated compared with the proposed thresholds. It is possible to add commercial discards and recreational landings and dead discards in the future, or to calculate how much additional catch is required to exceed a threshold.
2. The proposed ecosystem overfishing thresholds are based on a global analysis. The indices define ecosystem productivity in different ways. The Ryther Index is effectively based on fishery removals relative to global primary productivity per unit area, while the Fogarty Index is based on fishery removals relative to regional primary productivity [1]. The study authors "recommend that the indices proposed here be used cognizant of other potential sources of productivity and that are relevant to the scale at which fisheries management mostly occurs."

Our implementation of these indicators is fully documented in an $R$ package eofindices, where a disucssion of technical details including the 2021 calculations and potential future work are also provided. We welcome suggestions for further analysis that would be most useful for the Councils to evaluate and potentially use these ecosystem overfishing indices.

## 3 Primary production required, interpretation of decline?

Both Councils were interested in further interpretation of the decline in the fraction of primary production required to support commercial landings presented in the 2020 reports. For 2021, this indicator was extended back in time by reconstructing total primary production prior to the satellite era using the mean of 1998-2010 as values for pre 1998 (Fig. 1). This gives a fuller context of the demand that much higher historical landings placed on ecosystem productivity relative to current landings.


Figure 1: Primary production reconstructed (dashed line) using the mean of satellite-derived values from 1998-2010 (points); example for the Mid-Atlantic Bight.

It is also interpreted in the context of the ecosystem overfishing indicators introduced this year, which suggest when ecosystem overfishing may have ocurred over the past 50 years. In the SOE, we note that fisheries catches are sustained by a lower proportion of the ecosystem's primary production now than in the past, particularly when compared with the 1970s when the Fogarty and Ryther indices suggest that ecosystem overfishing may have occurred in the MAB and on GB. We also note that landings are generally declining while primary production remains steady or increasing across the EPUs. A full set of plots to help interpret the primary production required and ecosystem overfishing indices (including mean trophic level, which species are included in the landings, and the primary production time series) are available online. We welcome suggestions to include additional plots or conduct analyses to improve interpretation of these indices for the Councils.

## 4 Climate Change context

The NE SSC was interested in more explicitly addressing climate change in the reports. As described above, we have now reorganized the report into two major sections. The second section outlines risk to meeting fishery management objectives, with climate change representing the first major risk category (the other is offshore wind energy development). Climate risks to meeting fishery management objectives are also explicitly indicated and cross-referenced in the first section on performance against management objectives. We welcome feedback on this structural revision.

Climate forecasts at scales relevant to fishery management (months to years) are in progress, with at least one paper on statistical bottom temperature forecasts in review at present. We plan to include more of this information in
future reports as the science becomes available, and welcome guidance on which forecast variables might be most useful to the Councils.

## 5 Clarify language (e.g., primary production required)

Both Councils asked for clarification of several terms, including "primary production required," and "fishery engagement." The NE SSC suggested adding a glossary to improve clarity. We have added an online glossary (https://noaa-edab.github.io/tech-doc/glossary.html) which is linked from the report to explain many terms. The Northeast Fisheries Science Center Research Communications Branch (NEFSC RCB) also reviewed the draft document to streamline language, and brief text was added to explain the information used in each indicator.

## 6 Copy Editing

The NE SSC pointed out copy editing errors in the document. The NEFSC RCB copy edited a draft version of the 2021 document. We are working to further integrate RCB copy editing into our production process in the future.

## 7 Ocean Acidification

Last year we reported on work in progress related to Ocean Acidification (OA), including:

- Aleck Wang (WHOI) and Chris Melrose (NEFSC) are working on climatology of spatial and seasonal patterns of carbonate chemistry parameters on the Northeast U.S. Continental Shelf, which will form a critical baseline for future OA indicators.
- Grace Saba (Rutgers) is the lead PI on a new project which is using gliders to characterize OA conditions and to validate/improve OA models for the region.
- There is ongoing experimental work being conducted at the NEFSC Milford lab that we could include if the information is relevant

Both Councils, and in particular the NE SSC, were interested in including this work as it becomes available. This year we included the data from gliders characterizing seasonal OA conditions on the Mid-Atlantic shelf (p. 25-26 MAFMC and Fig. 2), and compared the observed OA conditions with preliminary lab results on pH thresholds where surfclam growth may be impacted (p. 32 MAFMC).


Figure 2: Locations and timing of glider-based pH transects on the Mid-Atlantic shelf.

We will continue to update OA information as it becomes available.

## 8 Include examples of High/Low engaged ports

Both Councils were interested in more information on fishery engagement trends, including clearer definitions of engagement and reliance, and the NE SSC requested examples of engagement scores at the fishing community level. Fishery engagement, reliance, and social vulnerability are briefly defined in the SOE text and glossary, with a link to the NMFS webpage defining all of these indicators and a maps with information for all communities.
A new presentation of individual community status with respect to engagement, reliance, and social vulnerability for both commercial and recreational fisheries was included as a baseline (p. 15-17 MAFMC and p. 19 NEFMC), to be updated in future years so that Councils may keep track of changes in community status.

## 9 Expand wind lease area and habitat overlap

The Mid-Atlantic Council and SSC remain interested in the potential effects of offshore wind development on ecosystems and fishery management, and asked to see expanded consideration of information beyond the NEFSC bottom trawl survey. This year offshore wind development indicators are highlighted in the new SOE section on risks to meeting fishery management objectives. The MA SSC expressed interest in an indicator of fishery revenue within wind lease areas, which has been provided this year with a focus on Council-managed species in each SOE report (p. 36 MAFMC and p. 36 NEFMC). Information on overlap of scientific surveys for ocean physics, low trophic levels, shellfish, fish, and protected species with wind lease areas is also provided in each report (p. 37 MAFMC and p. 38 NEFMC). Detailed maps highlighting the timing and type of potential development are also included. The wind energy area and habitat overlap information presented in 2020 could not be updated as there were no new NEFSC bottom trawl surveys, but the table is retained online as supplementary informtion.
During the production process, new information summarizing seabird, cetatean, and turtle "hotspots" with respect to wind lease areas was submitted by Timothy White (BOEM). We present that information here for feedback to determine if this should be refined and included in future SOE reports. Hotspot richness was defined as the sum of the number of persistent hotspots across taxa. Tim calculated individual persistent hotspots for about 60 different species (whales, seabirds, and sea turtles), then summed the individual hotspots across each grid cell to calculate hotspot richness, as shown on the map. A cell with a hotspot richness value of 8 represents 8 species-specific hotspots. All the wind energy areas intersect hotspots, and all values greater than 1 represent multi-species persistent hotspots (Fig. 3). Visualizations of hotspots for cetaceans, seabirds, and turtles separately are also available.


Figure 3: Overlap of whale, seabird, and turtle hotspots with wind lease areas.

We welcome further discussion on the expanded offshore wind development section, and suggestions for further indicator development that is most beneficial to the Councils.

## 10 Expand cold pool index

The MA SSC was interested in an expanded cold pool index, in particular with respect to timing of stratification and its breakdown in the fall. This year we introduced new cold pool metrics based on the GLORYS12V1 dataset, which is an global ocean reanalysis model for the ocean physics with 8 km resolution and 50 depth layers. In prior years, bottom temperature observations from the surveys were used to define the cold pool index. The advantage of the modeled product is the improved spatial and temporal resolution compared to the survey data. The vertical layers of the model will also allow us to examine stratification and mixing indices in future reports. One limitation, however, is the time series is shorter and there is a lag in the availability of the more recent data; current availaility is January 1993-June 2019.

In the SOE we visualize changes in cold pool area using this dataset to allow the Council to see how this dynamic habitat varies annually and in response to the temperature indicators we report. While we considered this to be an intuitive initial presentation, there are many other possible cold pool metrics that could be reported from this dataset. For example, time series of four additional metrics are available in the SOE dataset, ecodata (Fig. 4):

1. Name: T_mean; Definition: yearly-mean cold pool temperature distribution; Units: degrees C.
2. Name: T_min; Definition: yearly-min cold pool temperature distribution; Units: degrees C.
3. Name: T_peak; Definition: spatial cold pool temperature distribution at the peak day 140; Units: degrees C.
4. Name: V__max; Definition: yearly-max cold pool vertical distribution relative to depth; Units: meter/meter.

## Cold Pool Index



Figure 4: Mid-Atlantic cold pool metrics from the GLORYS reanalysis dataset, as defined in text above.

We welcome feedback on whether using this reanalysis dataset is preferable to the prior observation-based cold pool index. Dynamics of the cold pool have been described in detail using model-based information [2]. If this dataset seems promising, we seek suggestions on metrics the SSC would like to see from this dataset and how to present this information so that it is most useful to the Council.

## 11 Seperate Bigelow/Albatross catch diversity metric

The NE SSC requested a species diversity metric based on NEFSC trawl survey data. We had included such a metric in past reports (2017), but were concerned that apparent differences in diversity prior to and after 2008 may be driven by differences in survey vessels. While species-specific cpue and sizes have calibration coefficents between survey vessels, the number of species captured by the vessels has no known calibration coefficient.

After discussion with both SSCs in 2020, we calculated NEFSC trawl survey diversity metrics separately for the Albatross and Bigelow survey vessel time series. In each 2021 SOE we report the expected number of species per 1000 individuals sampled for each EPU in the fall, with uncertainty (p. 15 MAFMC and p. 18 NEFMC). Distinguising potential vessel effects from trends in diversity should be facilitated by this presentation. Plots for spring, as well as comparisons with Shannon diversity metrics combining both vessel time series as originally calculated, are available online (https://noaa-edab.github.io/ecodata/macrofauna_NE\#Survey_Shannon_Diversity, https://noaa-edab.github.io/ecodata/macrofauna_MAB\#Survey_Shannon_Diversity). We welcome further discussion to refine this and other diversity indices.

## 12 Shark abundance and catch indicators

The MAFMC requested information on biomass of sharks, as fishermen had reported encountering more blacktip, spinner, and sandbar sharks each summer. Both Councils have been interested in expanding data sources beyond the NEFSC bottom trawl survey for improved understanding of ecosystem dynammics. We were able to obtain commercial landings (Fig. 5), recreational landings (SOE p. 6 MAFMC and p. 8 NEFMC), and CPUE data (SOE p. 31 MAFMC and p. 34 NEFMC) from the Highly Migratory Species (HMS) group at NMFS Headquarters as well as bycatch information from the NEFSC Observer Program (SOE p. 30 MAFMC and p. 34 NEFMC).


Figure 5: Highly Migratory Species (HMS) landings; groups include "Bluefin Tuna", "BAYS", "Swordfish", "Large Coastal Sharks", "Small Coastal Sharks", "Pelagic Sharks", "Smoothhound Sharks". "BAYS" includes bigeye, albacore, yellowfin and skipjack tunas. "Large Coastal Sharks" includes blacktip, bull, great hammerhead, scalloped hammerhead, smooth hammerhead, lemon, nurse, sandbar, silky, spinner, and tiger sharks. "Small Coastal Sharks" includes Atlantic sharpnose, blacknose, bonnethead, finetooth sharks. "Pelagic Sharks" includes blue, porbeagle, shortfin mako, and thresher sharks. "Smoothhound Sharks" includes smooth dogfish shark.

In addition, commercial revenue from HMS (Fig. 6) and information on CPUE (bycatch) of many other species (Table 2) is available.


Figure 6: HMS revenue, groups are the same as previous figure.

Table 2: Species with CPUE available from HMS fishery observations.

| Species | Species, continued |
| :---: | :---: |
| AMBERJACK | SHARK HAMMERHEAD SMOOTH |
| BARRACUDA | SHARK MAKO |
| BLUEFISH | SHARK MAKO LONGFIN |
| BONITO | SHARK MAKO SHORTFIN |
| CIGARFISH | SHARK NIGHT |
| COBIA | SHARK OCEANIC WHITETIP |
| DOLPHIN ATLANTIC SPOTTED | SHARK PORBEAGLE |
| DOLPHIN BOTTLENOSE | SHARK REQUIEM |
| DOLPHIN COMMON | SHARK SAND TIGER |
| DOLPHIN FISH | SHARK SANDBAR |
| DOLPHIN PANTROPICAL SPOTTED | SHARK SILKY |
| DOLPHIN RISSOS | SHARK SPINNER |
| ESCOLAR (SMOOTH SKIN) | SHARK THRESHER |
| GANNET NORTHERN | SHARK THRESHER BIGEYE |
| GULL | SHARK THRESHER COMMON |
| GULL GREAT BLACK BACKED | SHARK TIGER |
| GULL HERRING | SHEARWATER |
| JACK | SHEARWATER CORY'S |
| LANCETFISH | SHEARWATER GREATER |
| LITTLE TUNNY | SKATES/RAYS |
| MACKERAL SNAKE | SPEARFISH |
| MACKEREL KING | SPEARFISH LONGBILL |
| MANTA RAY | SPEARFISH ROUNDSCALE |
| MARINE FINFISH | SQUID |
| MARLIN BLUE | STORM PETREL |
| MARLIN WHITE | SUNFISH |
| OILFISH (ROUGH SKIN) | SUNFISH OCEAN |
| OPAH | SUNFISH SHARPTIAL |
| PELAGIC STINGRAY | SWORDFISH |
| POMFRET | TUNA ALBACORE |
| PUFFER | TUNA BIGEYE |
| REMORA | TUNA BLACKFIN |
| SAILFISH ATLANTIC | TUNA BLUEFIN |
| SHARK | TUNA SKIPJACK |
| SHARK ATLANTIC SHARPNOSE | TUNA YELLOWFIN |
| SHARK BIGNOSE | TURTLE GREEN |
| SHARK BLACKNOSE | TURTLE HAWKSBILL |
| SHARK BLACKTIP | TURTLE KEMP'S RIDLEY |
| SHARK BLUE | TURTLE LEATHERBACK |
| SHARK BULL | TURTLE LOGGERHEAD |
| SHARK CROCODILE | UNCODED ANIMAL |
| SHARK DOGFISH | UNKNOWN |
| SHARK DOGFISH SMOOTH | WAHOO |
| SHARK DOGFISH SPINEY | WHALE BEAKED |
| SHARK DUSKY | WHALE PILOT |
| SHARK FINETOOTH | WHALE PILOT LONGFIN |
| SHARK HAMMERHEAD | WHALE PILOT SHORTFIN |
| SHARK HAMMERHEAD GREAT | WHALE SPERM PYGMY |
| SHARK HAMMERHEAD SCALLOPED | WHITE MARLIN / R.S. SPEARFISH |

With these new contributions, we can potentially include more information on performance relative to management objectives for HMS, such as a Kobe plot similar to the one presented for Council-managed species. We welcome feedback on what additional information on HMS would be most useful to the Councils in future SOE reports.

## 13 Uncertainty estimates

Both Councils asked for uncertainty estimates to be included with indicators. Uncertainty estimates are now included for all survey biomass indices (see also Section 23), survey diversity (expected number of species), harbor porpoise and gray seal bycatch, North Atlantic right whale abundance, forage anomaly, and forage fish energy density indicators. We continue to work towards including uncertainty estiamtes for as many indicators as possible. We welcome feedback from the Councils on which indicators are highest priority for the estimation and visualization of uncertainty.

## 14 Bycatch index

The NEFMC was interested in additional bycatch indices. This year we added an index of gray seal bycatch to both SOE reports (p. 18 MAFMC and p. 21 NEFMC). We have also added observer information on bycatch of sharks in Northeast US fisheries and additional information is available on catch and bycatch of multiple species in pelagic fisheries (see Section 12). We welcome suggestions for which species bycatch indices to prioritize in future reports.

## 15 Marine Mammal consumption

The MAFMC has continued interest in estimates of marine mammal consumption. While there have been no updated reports of total marine mammal consumption for the US Northeast Shelf ecosystem since 2015 [3], new diet studies are in progress. We included updated information on seal diets in both SOE reports (p. 31 MAFMC and p. 34 NEFMC). Once completed, these diet studies combined with mammal population estimates (see Section 24) could be used to update marine mammal consumption estimates.

## 16 Estuarine Water Quality

Both Councils have been interested in estuarine water quality. While the Chesapeake Bay water quality index reported previously is updated on a 3 -year basis, so no update was available this year, we included more information on Chesapeake Bay conditions and impacts to managed species in the MAFMC SOE (p. 22-23, p. 31) as well as in the MAFMC EAFM risk assessment update. In addition a new indicator catalog (currently in progress) will contain more in-depth information on temperature, salinity, dissolved oxygen, and submerged aquatic vegetation submitted by the NOAA Chesapeake Bay Office. There are plans to expand this contribution in the future to include more MAFMC managed species, and to use the online catalog as a repository for detailed information in support of the SOE.

The NE SSC was interested in estuarine water quality in the New England region; and we have been in discussion with multiple organizations working in coastal and estuarine systems to incorporate more information. However we had inadequate resources develop New England estuarine water quality indicators in 2020.

## 17 Forage abundance

The MAFMC has requested integrated indicators of small pelagic fish and forage abundance for several years. In addition to the trawl survey-based information on planktivores included in the document, this year we have added a new forage anomaly indicator based on combined zooplankton and ichthyoplankton data (p. 28-29 MAFMC and p. 32 NEFMC). We welcome feedback on this new indicator, including taxa currently included (Table 3).

Table 3: Groups included in the zooplankton and ichthyoplankton-based forage anomaly indicator

| Group | Category | Taxa Included |
| :---: | :---: | :---: |
| Calanus finmarchicus | Zooplankton | Calanus finmarchicus |
| Large Calanoid Copepods | Zooplankton | Calanus spp., Calanus minor, Eucalanus spp., Metridia lucens |
| Small Calanoid Copepods | Zooplankton | Small Calanoid Copepods less than 1.6 mm Prosome length |
| Cyclopoid Copepods | Zooplankton | Cyclopoid Copepods |
| Krill | Zooplankton | Euphausiacea |
| Mysid | Zooplankton | Mysidacea |
| Hyperiidea | Zooplankton | Hyperiidea Amphipods |
| Gammaridea | Zooplankton | Gammaridea Amphipods |
| Pteropod | Zooplankton | Pteropoda |
| Larvaceans | Zooplankton | Appendicularia |
| Cnidaria | Zooplankton | Cnidaria |
| Ctenophore | Zooplankton | Ctenophora |
| Salp | Zooplankton | Thaliacea |
| Unmanaged Clupeids | Ichthyoplankton | Clupeidae |
| Managed Clupeids | Ichthyoplankton | Clupeidae- Atlantic herring, Atlantic menaden, Alosa spp. |
| Anchovies | Ichthyoplankton | Engraulidae |
| Sandlance | Ichthyoplankton | Ammodytidae |
| Bristlemouths and hatchetfishes | Ichthyoplankton | Stomiiformes |
| Lanternfish | Ichthyoplankton | Myctophidae |
| Rocklings | Ichthyoplankton | Lotidae |
| Codlets | Ichthyoplankton | Bregmacerotidae |
| Cuskeels | Ichthyoplankton | Ophidiidae |
| Cod, Haddock, Pollock | Ichthyoplankton | Gadidae- Atlantic cod, Haddock, Pollock |
| Urophycis Hakes | Ichthyoplankton | Phycidae- Urophycis spp., Red hake, White hake, Spotted hake |
| Merluccius Hakes | Ichthyoplankton | Merlucciidae- Merluccius spp., Silver hake, Offshore hake |
| Mackerels | Ichthyoplankton | Scombridae |
| Butterfishes | Ichthyoplankton | Stromateidae |
| Unmanaged Flounders | Ichthyoplankton | Pleuronectiformes- Citharichthys, Etropus, Syacium, Bothus, Hippoglossina, Trichopsetta |
| Managed Flounders | Ichthyoplankton | Pleuronectiformes- Paralichthys, Pseudopleuronectes, Hippoglossoides, Hippoglossus, Limanda, Glyptocephalus |

Forage energy content is another important consideration which may affect predators as much as fluctuations in abundance. We have updated information on forage fish energy content based on NEFSC bottom trawl surveys in the SOE reports (p. 29 MAFMC and p. 32 NEFMC) which highlights the potential for seasonal and interannual variability in energy content.

The MAFMC asked whether Atlantic menhaden could be evaluated for energy content. We agree that it would be useful to look at energy content of menhaden, but they are not included at present because they are not caught reliably in NEFSC bottom trawl surveys. Menhaden are much higher in the water column and/or inshore of NEFSC surveys. Any other source of data would need to maintain the rapid processing and freezing methods applied on the NEFSC survey vessel to allow accurate estimation of \% dry weight.

## 18 Linking Condition

Both Councils were interested in more quantitative analysis linking environmental indicators, managed fish indicators, and fishery indicators to facilitate use of this information in management. Considerable progress has been made on linking environmental indicators to fish condition for multiple species, with an overview of preliminary Generalized

Additive Modeling (GAM) results described in the SOE. The NE SSC commented that overall (total) biomass could be included in the analysis of fish condition; this has been included in the analysis, as well as local abundance and local biomass (Fig. 7).


Figure 7: Preliminary results: GAM fish condition deviance explained by environmental variables, with darker cells indicating more important variables for that species.

Correlations between the potential drivers of condition are also being explored. Indices that are correlated ( $\mathrm{R}>0.3$, dark cells in Fig. 8) will not be used together in future full GAM analyses.


Figure 8: Preliminary results: correlations between potential environmental drivers of fish condition.

The MA SSC commented that indices of growth (weight at age) used in stock assessments could also be included in the analysis, and that methods such as Gaussian network modeling may be appropriate. The fish condition working group explored GAM analyses to link environmental indices to weights at age for managed fish species, but there were diagnostic issues that were not present in the condition analyses. The fish condition working group is continuing to make improvements to the GAM analyses, exploring options for indices of growth to integrate this information into future analyses. Similarly, modeling approaches in addition to GAMs are under investigation. Another component of the project evaluating potential links between fish condition and market prices is also ongoing.

## 19 Avg weight of diet components by feeding group

This information is being examined as part of the fish condition links project described above. However, we had insufficient resources to develop an independent indicator for the SOE in 2020.

## 20 Mean stomach weight across feeding guilds

This information is being examined as part of the fish condition links project described above. However, we had insufficient resources to develop an independent indicator for the SOE in 2020.

## 21 Shellfish growth/distribution linked to climate (system productivity)

The MAFMC requested that we investigate how shellfish growth and distribution information could be linked to climate indicators and possibly ecosystem productivity. We are working with Dr. Roger Mann who has obtained NSF INTERN funding for his student Alexis Hollander to spend up to 6 months at NEFSC working on shellfish growth, and to facilitate integration of SOE climate indicators with this work. This work should proceed later in 2021 or whenever in-person work is feasible.

## 22 Cumulative weather index

The MAFMC requested that we include information on weather that might affect recreational or commercial fishing effort. We are partnering with the National Weather Service (NWS) to provide this type of information. A preliminary index was developed based on Small craft/Gale warnings from the NWS Boston forecast office for the area off Cape Cod (Table 4).

Table 4: Gales $=$ winds $>=34$ knots (usually associated with a coastal storm); Storm $=$ winds $>=48$ knots

| Year | Gale.Warnings | Storm.Warnings |
| :---: | ---: | ---: |
| 2008 | 61 | 8 |
| 2009 | 49 | 11 |
| 2010 | 47 | 6 |
| 2011 | 48 | 5 |
| 2012 | 30 | 8 |
| 2013 | 43 | 6 |
| 2014 | 36 | 7 |
| 2015 | 80 | 3 |
| 2016 | 55 | 8 |
| 2017 | 52 | 15 |
| 2018 | 60 | 14 |
| 2019 | 57 | 8 |

We seek feedback from the Council on the utility of this information to further develop an indicator for future SOE reports. Is monthly data more useful than annual as above? Would seasonal aggregates be useful? Is there a certain wind speed where vessels alter effort? We look forward to further integration of NWS information for our region.

## 23 Management complexity

The MAFMC asked for indicators of management complexity for use in the EAFM risk assessment. An NEFSC summer student started work on this in 2018 , but we have lacked capacity to finish the project since then. If resources allow we will continue the project, and guidance for further indicator developmet is welcome.

## 24 VAST and uncertainty

Both Councils were interested in model-based estimates of aggregate fish biomass and uncertainty based on preliminary results presented in 2020. We experimented with a model-based estimate of uncertainty for survey biomass which accounts for both spatial and temporal sources (VAST; [4]). Although the surveys were not completed this year, work on model-based estimates continues and may be presented next year.

## 25 Seal index

The MA SSC requested indices of abundance for seals rather than the narrative supplied in 2020. Analysis and review is in progress to update abundance and possibly assess trends in US waters for harbor and gray seals; however, these estimates were not available for the 2021 SOE. New information on increasing numbers of gray seal pups born at US pupping sites has been added to the narrative for both SOE reports [5]. A plot visualizing pup rates of increase has been added to the NEFMC SOE (p. 23), as it is most relevant to the Gulf of Maine.

A detailed stock assessment for Canadian Northwest Atlantic gray seals was published in 2017 and is available online. As noted in the SOE, the Candian population is likely supplementing the US population, and seals range widely, so distinguishing trends within US waters or individual EPUs is complex. However, a gray seal survey is in progress for 2021, and updated information will be included as it is available.

As noted by the MA SSC, seals are important predators in the ecosystem, so we have included additional updates on seal diet studies in progress, and have moved the discussion of seals as predators into a more general discussion of predator trends in the SOE along with information added for sharks.

## 26 Incorporate social sciences survey from council

The NE SSC was interested in reviewing information on the perception and use of social science information from an NEFMC survey. We had insufficient resources to address this in 2020. We welcome input from the New England Council and staff on how best to incorporate this information in future reports.

## 27 Young of Year index from multiple surveys

The MA SSC was interested in a young of year index from multiple surveys. In past reports we have included the fish productivity index, which calculates the number of small fish per biomass of large fish of the same species from NEFSC surveys. This index is based only on the NEFSC bottom trawl survey, which was not completed in 2020, so the index was not updated; we retain last year's indices online for reference ( MAB, GB and GOM). We recognize that this is not strictly a young of year index, and it is from a single survey.

We had insufficient resources to address this in 2020.

## 28 Biomass of species not included in bottom trawl surveys

We included information on sharks this year (Section 12), and data streams for many other species not captured by bottom trawl surveys (BTS) are under investigation. However, we had insufficient resources to address this fully in 2020.

## 29 Estuarine condition relative to power plants and temp

We had insufficient resources to address this in 2020.

## 30 Inflection points for indicators

While this could not be addressed for individual indicators in 2020, we did include new Ecosystem Overfishing indicators with proposed thresholds (see Section 2, Ecosystem Overfishing indicators). We welcome suggestions for which additional indicators or groups of indicators should be prioritized for inflection point/threshold analysis in upcoming years.

## 31 Reduce indicator dimensionality with multivariate statistics

The NE SSC suggested statistical analysis to reduce the number of indicators and remove redundant indicators in the report. Some work has been initiated on this in past years, but we had insufficient resources to complete this in 2020.

## 32 Breakpoints

While this could not be addressed for individual indicators in 2020 , our newly introduced regime shifts synthesis theme will be explored further in upcoming years. We welcome suggestions for which individual indicators or groups of indicators should be prioritized for regime shift analysis in upcoming years.

## 33 Re-evaluate EPUs

Initial planning for re-evaluating Northeast US Shelf ecological production units has started, but we had insufficient resources to begin the project in 2020.

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## Introduction

The Council approved an EAFM Guidance Document in 2016 which outlined a path forward to more fully incorporate ecosystem considerations into marine fisheries management ${ }^{1}$, and revised the document in February 2019 ${ }^{2}$. The Council's stated goal for EAFM is "to manage for ecologically sustainable utilization of living marine resources while maintaining ecosystem productivity, structure, and function." Ecologically sustainable utilization is further defined as "utilization that accommodates the needs of present and future generations, while maintaining the integrity, health, and diversity of the marine ecosystem." Of particular interest to the Council was the development of tools to incorporate the effects of species, fleet, habitat and climate interactions into its management and science programs. To accomplish this, the Council agreed to adopt a structured framework to first prioritize ecosystem interactions, second to specify key questions regarding high priority interactions and third tailor appropriate analyses to address them [1]. Because there are so many possible ecosystem interactions to consider, a risk assessment was adopted as the first step to identify a subset of high priority interactions [2]. The risk elements included in the Council's initial assessment spanned biological, ecological, social and economic issues (Table 1) and risk criteria for the assessment were based on a range of indicators and expert knowledge (Table 2).

This document updates the Mid-Atlantic Council's initial EAFM risk assessment [3] with indicators from the 2021 State of the Ecosystem report and with new analyses by Council Staff for the Management elements. The risk assessment was designed to help the Council decide where to focus limited resources to address ecosystem considerations by first clarifying priorities. Overall, the purpose of the EAFM risk assessment is to provide the Council with a proactive strategic planning tool for the sustainable management of marine resources under its jurisdiction, while taking interactions within the ecosystem into account.
Many risk rankings are unchanged based on the updated indicators for 2021 and the Council's risk criteria. Below, we highlight only the elements where updated information has changed the perception of risk. In addition, we present new indicators based on Council feedback on the original risk analysis that the Council may wish to include in future updates to the EAFM risk assessment.

[^50]Table 1: Risk Elements, Definitions, and Indicators Used

| Element | Definition | Indicator |
| :---: | :---: | :---: |
| Ecological |  |  |
| Assessment | Risk of not achieving OY due to analytical limitations | Current assessment method/data quality |
| performance |  |  |
| F status | Risk of not achieving OY due to overfishing | Current F relative to reference F from assessment |
| B status | Risk of not achieving OY due to depleted stock | Current B relative to reference B from assessment |
| Food web | Risk of not achieving OY due to MAFMC managed | Diet composition, management measures |
| (MAFMC | species interactions |  |
| Predator) |  |  |
| Food web | Risk of not achieving OY due to MAFMC managed | Diet composition, management measures |
| (MAFMC Prey) | species interactions |  |
| Food web | Risk of not achieving protected species objectives due | Diet composition, management measures |
| (Protected Species | to species interactions |  |
| Prey) |  |  |
| Ecosystem productivity | Risk of not achieving OY due to changing system productivity | Four indicators, see text |
| Climate | Risk of not achieving OY due to climate vulnerability | Northeast Climate Vulnerability Assessment |
| Distribution | Risk of not achieving OY due to climate-driven | Northeast Climate Vulnerability Assessment +2 |
| shifts |  | indicators |
| Estuarine | Risk of not achieving OY due to threats to | Enumerated threats + estuarine dependence |
| habitat | estuarine/nursery habitat |  |
| Offshore habitat | Risk of not achieving OY due to changing offshore habitat | Integrated habitat model index |
| Economic |  |  |
| Commercial | Risk of not maximizing fishery value | Revenue in aggregate |
| Revenue |  |  |
| Recreational | Risk of not maximizing fishery value | Numbers of anglers and trips in aggregate |
| Angler Days/Trips |  |  |
| Commercial | Risk of reduced fishery business resilience | Species diversity of revenue |
| Fishery Resilience (Revenue |  |  |
| Diversity) |  |  |
| Commercial | Risk of reduced fishery business resilience due to | Number of shoreside support businesses |
| Fishery Resilience (Shoreside | shoreside support infrastructure |  |
| Support) |  |  |
| Social |  |  |
| Fleet Resilience | Risk of reduced fishery resilience | Number of fleets, fleet diversity |
| Social-Cultural | Risk of reduced community resilience | Community vulnerability, fishery engagement and reliance |
| Food Production |  |  |
| Commercial | Risk of not optimizing seafood production | Seafood landings in aggregate |
| Recreational | Risk of not maintaining personal food production | Recreational landings in aggregate |
| Management |  |  |
| Control | Risk of not achieving OY due to inadequate control | Catch compared to allocation |
| Interactions | Risk of not achieving OY due to interactions with species managed by other entities | Number and type of interactions with protected or non-MAFMC managed species, co-management |
| Other ocean uses | Risk of not achieving OY due to other human uses | Fishery overlap with energy/mining areas |
| Regulatory complexity | Risk of not achieving compliance due to complexity | Number of regulations by species |
| Discards | Risk of not minimizing bycatch to extent practicable | Standardized Bycatch Reporting |
| Allocation | Risk of not achieving OY due to spatial mismatch of stocks and management | Distribution shifts + number of interests |

Table 2: Risk Ranking Criteria used for each Risk Element

| Element | Low | Low-Moderate | Moderate-High | High |
| :---: | :---: | :---: | :---: | :---: |
| Assessment performance | Assessment model(s) passed peer review, high data quality | Assessment passed peer review but some key data and/or reference points may be lacking | *This category not used* | Assessment failed peer review or no assessment, data-limited tools applied |
| F status | F $<$ Fmsy | Unknown, but weight of evidence indicates low overfishing risk | Unknown status | F $>$ Fmsy |
| B status | $\mathrm{B}>$ Bmsy | Bmsy $>\mathrm{B}>0.5$ Bmsy, or unknown, but weight of evidence indicates low risk | Unknown status | B $<0.5$ Bmsy |
| Food web <br> (MAFMC <br> Predator) | Few interactions as predators of other MAFMC managed species, or predator of other managed species in aggregate but below $50 \%$ of diet | *This category not used* | *This category not used* | Managed species highly dependent on other MAFMC managed species as prey |
| Food web <br> (MAFMC <br> Prey) | Few interactions as prey of other MAFMC managed species, or prey of other managed species but below $50 \%$ of diet | Important prey with management consideration of interaction | *This category not used* | Managed species is sole prey and/or subject to high mortality due to other MAFMC managed species |
| Food web (Protected Species Prey) | Few interactions with any protected species | Important prey of 1-2 protected species, or important prey of 3 or more protected species with management consideration of interaction | Important prey of 3 or more protected species | Managed species is sole prey for a protected species |
| Ecosystem productivity | No trends in ecosystem productivity | Trend in ecosystem productivity (1-2 measures, increase or decrease) | Trend in ecosystem productivity (3+ measures, increase or decrease) | Decreasing trend in ecosystem productivity, all measures |
| Climate | Low climate vulnerability ranking | Moderate climate vulnerability ranking | High climate vulnerability ranking | Very high climate vulnerability ranking |
| Distribution shifts | Low potential for distribution shifts | Moderate potential for distribution shifts | High potential for distribution shifts | Very high potential for distribution shifts |
| Estuarine habitat | Not dependent on nearshore coastal or estuarine habitat | Estuarine dependent, estuarine condition stable | Estuarine dependent, estuarine condition fair | Estuarine dependent, estuarine condition poor |
| Offshore habitat | No change in offshore habitat quality or quantity | Increasing variability in habitat quality or quantity | Significant long term decrease in habitat quality or quantity | Significant recent decrease in habitat quality or quantity |
| Commercial <br> Revenue | No trend and low variability in revenue | Increasing or high variability in revenue | Significant long term revenue decrease | Significant recent decrease in revenue |
| Recreational <br> Angler <br> Days/Trips | No trends in angler days/trips | Increasing or high variability in angler days/trips | Significant long term decreases in angler days/trips | Significant recent decreases in angler days/trips |
| Commercial <br> Fishery <br> Resilience | No trend in diversity measure | Increasing or high variability in diversity measure | Significant long term downward trend in diversity measure | Significant recent downward trend in diversity measure |

Table 2: Risk Ranking Criteria used for each Risk Element (continued)

| Element | Low | Low-Moderate | Moderate-High | High |
| :---: | :---: | :---: | :---: | :---: |
| Commercial <br> Fishery <br> Resilience <br> (Shoreside <br> Support) | No trend in shoreside support businesses | Increasing or high variability in shoreside support businesses | Significant recent decrease in one measure of shoreside support businesses | Significant recent decrease in multiple measures of shoreside support businesses |
| Fleet Resilience | No trend in diversity measure | Increasing or high variability in diversity measure | Significant long term downward trend in diversity measure | Significant recent downward trend in diversity measure |
| Social-Cultural | Few ( $<10 \%$ ) vulnerable fishery dependent communities | $10-25 \%$ of fishery dependent communities with $>3$ high vulnerability ratings | $25-50 \%$ of fishery dependent communities with $>3$ high vulnerability ratings | Majority ( $>50 \%$ ) of fishery dependent communities with $>3$ high vulnerability ratings |
| Commercial | No trend or increase in seafood landings | Increasing or high variability in seafood landings | Significant long term decrease in seafood landings | Significant recent decrease in seafood landings |
| Recreational | No trend or increase in recreational landings | Increasing or high variability in recreational landings | Significant long term decrease in recreational landings | Significant recent decrease in recreational landings |
| Control | No history of overages | Small overages, but infrequent | Routine overages, but small to moderate | Routine significant overages |
| Interactions | No interactions with non-MAFMC managed species | Interactions with non-MAFMC managed species but infrequent, Category II fishery under MMPA; or AMs not likely triggered | AMs in non-MAFMC managed species may be triggered; or Category I fishery under MMPA (but takes less than PBR) | AMs in non-MAFMC managed species triggered; or Category I fishery under MMPA and takes above PBR |
| Other ocean uses | No overlap; no impact on habitat | Low-moderate overlap; minor habitat impacts but transient | Moderate-high overlap; minor habitat impacts but persistent | High overlap; other uses could seriously disrupt fishery prosecution; major permanent habitat impacts |
| Regulatory complexity | Simple/few regulations; rarely if ever change | Low-moderate complexity; occasional changes | Moderate-high complexity; occasional changes | High complexity; frequently changed |
| Discards | No significant discards | Low or episodic discard | Regular discard but managed | High discard, difficult to manage |
| Allocation | No recent or ongoing Council discussion about allocation | *This category not used* | *This category not used* | Recent or ongoing Council discussion about allocation |

## Changes from 2020: Ecological risk elements

## Decreased Risk: 0

No indicators for existing ecological elements have changed enough to warrant decreased risk rankings according to the Council risk critiera.

## Increased Risk: 1

Butterfish biomass ( B ) status has changed from low risk $(\mathrm{B}>\mathrm{Bmsy})$ to low-moderate risk ( $\mathrm{Bmsy}>\mathrm{B}>0.5 \mathrm{Bmsy}$ ) based on the new benchmark assessment (Table 3).

## Update on Chesapeake Bay water quality

Many important MAFMC managed species use estuarine habitats as nurseries or are considered estuarine and nearshore coastal-dependent (summer flounder, scup, black sea bass, and bluefish), and interact with other important estuarine-dependent species (e.g., striped bass and menhaden). In 2019, we reported on improving water quality in Chesapeake Bay, and suggested that the Council could reconsider high risk ratings for estuarine-dependent species if this trend continues.
However, as reported in the 2020 SOE, the Chesapeake Bay experienced below average salinity in 2019, caused by the highest precipitation levels ever recorded for the watershed throughout 2018 and 2019.
In 2020, Chesapeake Bay experienced a warmer than average winter, followed by a cooler than average spring, with potential impacts to striped bass and blue crabs as noted in the 2021 SOE. Observations from the NOAA CBIBS buoys indicated higher-than-average salinity throughout 2020, particularly in the upper Chesapeake Bay (Gooses Reef), suggesting that the region experienced less precipitation than usual.
A dissolved oxygen model operated by the Virginia Institute of Marine Science (VIMS) and Anchor QEA (www.vims.edu/hypoxia) estimated that the overall severity and duration of hypoxia in the Chesapeake Bay was lower and shorter in 2020 compared to most recent years. A smaller-than-average spring freshet, which resulted in above-average salinity in the Bay, also might have decreased surface runoff and nutrient concentrations. Reduced nutrient inputs and cool spring temperatures likely contributed to reduced hypoxia in 2020. Information on submerged aquatic vegetation (SAV) collected in 2020 has not yet been processed, but may be included in upcoming SOE reports.
It is unclear how these annual updates in Chesapeake Bay temperature, salinity, dissolved oxygen, and SAV will affect the overall water quality indicator (which was not updated for the 2020 or 2021 report because it requires multiple years to update). The new information below suggests that high risk for estuarine-dependent species is still warranted. However, direct links between estuarine habitat conditions and population attributes for managed species (as reported for Chesapeake Bay striped bass and blue crabs) could be incorporated into future risk assessments as the science continues to develop.

## Update on Climate risks

New information has been added to the SOE that could be used to update species-specific Climate risk rankings in the future. Risks to species productivity (and therefore to achieving OY) due to projected climate change in the Northeast US were evaluated in a comprehensive assessment [4]. This assessment evaluated exposure of each species to multiple climate threats, including ocean and air temperature, ocean acidification, ocean salinity, ocean currents, precipitation, and sea level rise. The assessment also evaluated the sensitivity ( $n o t$ extinction risk) of each species based on habitat and prey specificity, sensitivity to temperature and ocean acidification, multiple life history factors, and number of non-climate stressors.

Mid-Atlantic species were all either highly or very highly exposed to climate risk in this region, and ranged from low to very high sensitivity to expected climate change in the Northeast US. The combination of exposure and sensitivity results in the overall vulnerability ranking.

The 2021 SOE includes multiple climate indicators including surface and bottom water temperature, marine heat waves, cold pool area, and new information on ocean acidification measurements. Combined with species sensitivity information from lab work, these indicators could be used to further clarify climate risks to managed species.
For example, new glider-based observations revealed areas of low pH (7.8) during summer in Mid-Atlantic habitats occupied by Atlantic surfclams and sea scallops (Fig. 1) [5]. This seasonal pH minimum is associated with cold-pool subsurface and bottom water, which is cut off from mixing with surface water by strong stratification. However, seawater pH in shelf waters increased during the fall mixing period due to the influence of a slope water mass characterized by warm, salty, highly alkaline seawater. Lower pH in nearshore waters is likely associated with freshwater input.





> Atlantic Surfclam Spisula solidissima

Figure 1: Seasonal glider-based pH observations on the Mid-Atlantic Bight shelf (New Jersey cross-shelf transect) in relation to Atlantic surfclam and Atlantic sea scallop habitats (modified from Wright-Fairbanks et al. 2020).

Surclams were ranked high vulnerability in the Northeast Fish and Shellfish Climate Vulnerability Assessment (FCVA) completed in 2016 [4], therefore they rank moderate-high risk for the Climate element of the MAFMC EAFM risk assessment. Surfclam climate vulnerability was based on both sensitivity and exposure to ocean acidificaiton, exposure to ocean warming, and low adult mobility. Recent lab studies have found that surfclams exhibited metabolic depression in a pH range of $7.46-7.28$ [6]. At pH of 7.51 , short term experiments indicated that surfclams were selecting particles differently, which may have long term implications for growth [6]. Computer models would help in determining the long term implications of growth on surfclam populations. Data from about one year of observations (2018-2019) show that seasonal ocean pH has not yet reached the metabolic depression threshold observed for surfclams in lab studies so far; however, thresholds at different life stages, specifically larval stages that are typically more vulnerable to ocean acidification, have not yet been determined. Monitoring pH in surfclam habitats could be used to assess Climate risk in the future.

## Potential new indicators

## Habitat Climate Vulnerability

A Habitat Climate Vulnerability Assessment (HCVA; [7]) for habitat types in the Northeast US Large Marine Ecosystem was completed in 2020. To better understand which species depend on vulnerable habitats, the Atlantic Coastal Fish Habitat Partnership (ACFHP) habitat-species matrix [8] was used in conjunction with the results of the HCVA and the Northeast Fish and Shellfish Climate Vulnerability Assessment (FCVA) completed in 2016 [4]. The ACFHP matrix identified the importance of nearshore benthic habitats to each life stage of select fish species, which helps elucidate species that may be highly dependent on highly vulnerable habitats that were identified in the HCVA.

Several MAFMC managed species, including black sea bass, scup, and summer flounder, are dependent on several highly vulnerable nearshore habitats from salt marsh through shallow estuarine and marine reefs. Details on highly vulnerable habitats with linkages to a variety of species, including which life stages have different levels of dependence on a particular habitat, are available in a detailed table. ${ }^{3}$

Species highlighted here are those that are highly dependent on highly vulnerable habitats. A ranking matrix was created using the habitat vulnerability rankings compared to the habitat importance rankings to determine the criteria, and for the purposes of this submission, "high dependence on a highly vulnerable habitat" encompasses moderate use of very highly vulnerable habitats, high use of highly or very highly vulnerable habitats, or very high use of moderately, highly, or very highly vulnerable habitats.
Preliminary species narratives have been developed by Grace Roskar and Emily Farr (NMFS Office of Habitat Conservation), using information from the entire team that worked on the HCVA. We include two here so that the Council may provide feedback to improve their utility for management in general and for potentail future inclusion in the EAFM risk assessment.

Black Sea Bass Summary: Black sea bass have a high vulnerability to climate change, due to very high exposure related to surface and air temperature in both inshore and offshore waters, and moderate sensitivity of early life history requirements. Climate change is predicted to have a positive effect on black sea bass, due to warmer temperatures increasing spawning and therefore recruitment, and distribution of the species shifting farther north [4].
The habitats important to black sea bass, such as shellfish reefs, submerged aquatic vegetation, and subtidal rocky bottom habitats, are vulnerable to projected changes in sea surface temperature. Additionally, intertidal habitats such as shellfish reefs are also vulnerable to projected changes in air temperatures and sea level rise. Habitat condition and habitat fragmentation were also of concern for shellfish reefs and submerged aquatic vegetation. The species itself is also vulnerable to temperature changes, as mentioned above. The overlapping high importance of intertidal and subtidal shellfish reefs to black sea bass and the very high to high climate vulnerability of these habitats, respectively, show a potential critical nexus of climate vulnerability.

Mid-Atlantic Summary: Shellfish reef habitats are highly important for both juveniles/young-of-the-year and adults. These life stages utilize both marine and estuarine shellfish reefs, in both intertidal and subtidal zones, which are very highly vulnerable and highly vulnerable, respectively. Other important habitats for black sea bass include submerged aquatic vegetation, which is highly vulnerable, and subtidal sand and rocky bottom habitats, which have low vulnerability. More information is needed on use of intertidal benthic habitats by black sea bass. Juvenile occurrence on sandy intertidal flats or beaches is rare, according to [9], but additional information on the use and importance of intertidal rocky bottom or intertidal benthic habitat use by adults is lacking. According to [9], black sea bass eggs have been collected in the water column over the continental shelf, as has larvae. As water column habitats were not included in ACFHP's assessment of habitat importance, finer-scale information on the importance of specific pelagic habitats is needed for the species.
Habitat importance by life stage:

- Juveniles/Young-of-the-year:

[^51]- Marine and estuarine intertidal shellfish reefs, which are very highly vulnerable to climate change, are of high importance.
- Marine and estuarine submerged aquatic vegetation and subtidal shellfish reefs, which are highly vulnerable to climate change, are of high importance.
- Marine intertidal rocky bottom habitats, which are highly vulnerable to climate change, are of high importance.
- Marine ( $<200 \mathrm{~m}$ ) and estuarine subtidal rocky bottom habitats, which have a low vulnerability to climate change, are also of high importance.
- Adults:
- Marine and estuarine intertidal shellfish reefs, which are very highly vulnerable to climate change, are of high importance.
- Marine and estuarine subtidal shellfish reefs, which are highly vulnerable to climate change, are of high importance.
- Marine intertidal rocky bottom habitats, which are highly vulnerable to climate change, are of high importance.
- Marine and estuarine submerged aquatic vegetation, which are highly vulnerable to climate change, are of moderate importance.
- Marine ( $<200 \mathrm{~m}$ ) and estuarine subtidal rocky bottom habitats, which have a low vulnerability to climate change, are also of high importance.
- Marine ( $<200 \mathrm{~m}$ ) and estuarine subtidal sand habitats, including sandy-shelly areas, which have a low vulnerability to climate change, are also of moderate importance.

New England Summary: All habitats in New England for black sea bass were ranked as moderately important, likely indicating that the species uses a diverse range of habitats rather than high dependence on a specific habitat type. Shellfish reef habitats are moderately important for both juveniles/young-of-the-year and adults. These life stages utilize both marine and estuarine shellfish reefs, in both intertidal and subtidal zones, which are very highly vulnerable and highly vulnerable, respectively. Juveniles/young-of-the-year are also moderately dependent on native salt marsh habitats, which are highly vulnerable to climate change. Other moderately important habitats for black sea bass include submerged aquatic vegetation, which is highly vulnerable, and subtidal sand and rocky bottom habitats, which have low vulnerability. More information is needed on use of intertidal benthic habitats by black sea bass. Juvenile occurrence on sandy intertidal flats or beaches is rare, according to [9], but additional information on the use and importance of intertidal rocky bottom or intertidal benthic habitat use by adults is lacking.
$\underline{\text { Habitat importance by life stage: }}$

- Juveniles/Young-of-the-year:
- Marine and estuarine submerged aquatic vegetation and subtidal shellfish reefs, which are all highly vulnerable to climate change, are of moderate importance.
- Marine and estuarine intertidal shellfish reefs, which are very highly vulnerable to climate change, are of moderate importance.
- Native salt marshes, which are very highly vulnerable to climate change, are of moderate importance. Marine ( $<200 \mathrm{~m}$ ) and estuarine subtidal rocky bottom habitats, which have a low vulnerability to climate change, are of moderate importance.
- Adults:
- Marine and estuarine submerged aquatic vegetation and subtidal shellfish reefs, which are all highly
vulnerable to climate change, are of moderate importance.
- Marine and estuarine intertidal shellfish reefs, which are very highly vulnerable to climate change, are of moderate importance.
- Marine ( $<200 \mathrm{~m}$ ) and estuarine subtidal rocky bottom habitats, which have a low vulnerability to climate change, are of moderate importance.
- Structured sand habitats in marine $(<200 \mathrm{~m})$ and estuarine subtidal areas, which have a low vulnerability to climate change, and marine intertidal areas, which are highly vulnerable, are of moderate importance.

Summer Flounder Summary: Summer flounder were ranked moderately vulnerable to climate change due to very high exposure to both ocean surface and air temperature, but low sensitivity to all examined attributes. Broad dispersal of eggs and larvae and seasonal north-south migrations by adults lend the species a high potential for distribution shifts. However, climate change is expected to have a neutral effect on the species, although there is high uncertainty surrounding this. The dispersal of eggs and larvae and the broad use of both estuarine and marine habitats could result in climate change having a positive effect, but uncertainty remains [4].
The habitats important to summer flounder, such as intertidal benthic habitats, submerged aquatic vegetation, and native salt marsh habitats, are vulnerable to projected changes in temperature as well as sea level rise. Subtidal benthic habitats are vulnerable to changes in sea surface temperature. The species itself is also vulnerable to such factors, as they are exposed to changes in conditions in both inshore and offshore habitats. The overlapping high importance of native salt marsh and submerged aquatic vegetation habitats to the species and the very high and high climate vulnerability of these habitats, respectively, show a potential critical nexus of climate vulnerability.

Mid-Atlantic Summary: Marine and estuarine sand and mud habitats are highly important to juvenile and adult summer flounder, and these habitats range in their vulnerability to climate change. For example, marine intertidal sand is highly vulnerable, whereas subtidal mud and sand habitats have low vulnerability. In addition to these fine bottom benthic habitats, native salt marshes are highly important to juveniles and moderately important to adults, yet these habitats are very highly vulnerable to climate change. Eggs and larvae utilize pelagic continental shelf habitats; however, water column habitats were not included in ACFHP's assessment of habitat importance. Finer-scale information on the importance of specific pelagic habitats is needed for the species.
$\underline{\text { Habitat importance by life stage: }}$

- Juveniles/Young-of-the-year:
- Marine and estuarine intertidal shellfish reefs, which are very highly vulnerable to climate change, are of moderate importance.
- Marine and estuarine subtidal shellfish reefs, which are highly vulnerable to climate change, are of moderate importance.
- Marine and estuarine submerged aquatic vegetation, which are highly vulnerable habitats, are of high importance.
- Native salt marsh habitats, which are very highly vulnerable to climate change, are of high importance.
- Marine and estuarine subtidal and intertidal sand and mud bottom habitats are of high importance. These habitats range in climate vulnerability, from high vulnerability of marine intertidal sand to low vulnerability of marine subtidal sand and mud ( $<200 \mathrm{~m}$ ) and estuarine subtidal sand.
- Adults:
- Marine and estuarine submerged aquatic vegetation, which are highly vulnerable habitats, are of moderate importance.
- Native salt marsh habitats, which are very highly vulnerable to climate change, are of moderate importance.
- Marine and estuarine subtidal and intertidal sand and mud bottom habitats are of high importance. These habitats range in climate vulnerability, from high vulnerability of marine intertidal sand to low vulnerability of marine subtidal sand and mud $(<200 \mathrm{~m})$ and estuarine subtidal sand.
- Spawning Adults:
- Marine subtidal ( $<200 \mathrm{~m}$ ) sand habitats, which have a low vulnerability to climate change, are of high importance.

We seek Council feedback on how best to include information on habitat climate vulnerability for managed species in future EAFM risk assessments.

## Changes from 2020: Economic, Social, and Food production risk elements

## Decreased Risk: 0

No indicators for existing economic, social, and food production elements have changed enough to warrant decreased risk rankings according to the Council risk critiera.

## Increased Risk: 0

No indicators for existing economic, social, and food production elements have changed enough to warrant increased risk rankings according to the Council risk critiera.

## Potential new indicators

## Social vulnerability in commercial and recreational fishing communities

Social vulnerability measures social factors that shape a community's ability to adapt to change and does not consider gentrification pressure (see detailed definitions). Communities that ranked medium-high or above for one or more of the following indicators: poverty, population composition, personal disruption, or labor force structure, are highlighted in red.
Commercial fishery engagement measures the number of permits, dealers, and landings in a community, while reliance expresses these numbers based on the level of fishing activity relative to the total population of a community. In 2020, we reported that the number of highly engaged Mid-Atlantic commercial fishing communities had declined over time, and engagement scores had also declined in medium-highly engaged communities. Here we focus on the top ten most engaged, and top ten most reliant commercial fishing communities and their associated social vulnerability (Fig. 2). Barnegat Light and Cape May, NJ, and Reedville, VA are highly engaged and reliant with medium-high to high social vulnerability.

Social Vulnerability in Top Commercial Fishing Communities


Figure 2: Commercial engagement, reliance, and social vulnerability for the top commercial fishing communities in the Mid-Atlantic.

Recreational fishery engagement measures shore, private vessel, and for-hire fishing activity while reliance expresses these numbers based on fishing effort relative to the population of a community. Of the nine recreational communities that are most engaged and reliant, Avon, Ocracoke and Hatteras, NC and Barnegat Light and Cape May, NJ scored medium-high or above for social vulnerability (Fig. 3).
Both commercial and recreational fishing are important activities in Montauk, NY; Barnegat Light, Cape May, and Point Pleasant Beach, NJ; and Ocracoke and Rodanthe, NC, meaning some of these communities may be impacted simultaneously by commercial and recreational regulatory changes. Of these communities, three scored medium-high or above for social vulnerability.


Figure 3: Recreational engagement, reliance, and social vulnerability for the top recreational fishing communities in the Mid-Atlantic.

These plots provide a snapshot of the relationship between social vulnerability and the most highly engaged and most highly reliant commercial and recreational fishing communities in the Mid-Atlantic. Similar plots are used to inform the annual California Current Ecosystem Status Report. These communities may be vulnerable to changes in fishing patterns due to regulations and/or climate change. When any of these communities are also experiencing social vulnerability, they may have lower ability to successfully respond to change. These indicators may also point to communities that are vulnerable to environmental justice issues. Additional analysis related to ecosystem shifts and National Standard 8 of the Magnuson-Stevens Act is ongoing.

## Recreational Fleet Diversity

Indicators for the diversity of recreational effort (i.e. access to recreational opportunities) by mode (party/charter boats, private boats, shore-based), and diversity of catch (NEFMC, MAFMC, SAFMC, and ASMFC managed species) have been included in the SOE and may be useful to parallel commercial diversity metrics in the EAFM risk assessment. Recreational fleet diversity has declined over the long term (Fig. 4).


Figure 4: Recreational fleet effort diversity in the Mid-Atlantic.

The absence of a long-term trend in recreational effort suggests relative stability in the overall number of recreational opportunities in the MAB. However, the decline in recreational fleet diversity suggests a potentially reduced range of opportunities.

The downward effort diversity trend is driven by party/charter contraction (from a high of $24 \%$ of angler trips to $7 \%$ currently), and a shift toward shorebased angling. Effort in private boats remained stable between $36-37 \%$ of angler trips across the entire series.

Changes in recreational fleet diversity can be considered when managers seek options to maintain recreational opportunities. Shore anglers will have access to different species than vessel-based anglers, and when the same species, typically smaller fish. Many states have developed shore-based regulations where the minimum size is lower than in other areas and sectors to maintain opportunities in the shore angling sector.
We seek Council feedback on whether to include fishing community vulnerability and recreational diversity indicators within the EAFM risk assessment, and if so, what risk criteria should be applied to these indicators.

## Changes from 2020: Management risk elements

Management risk elements contain a mixture of quantitatively (Fishing Mortality Control, Technical Interactions, Discards, and Allocation) and qualitatively (Other Ocean Uses and Regulatory Complexity) calculated rankings. In general, the management indicators evaluate a particular risk over several years; therefore, the rankings should remain fairly consistent on an annual basis unless something changed in the fishery or if a management action occurred. A comprehensive evaluation and update of all management risk elements was conducted by Council staff in 2020. In 2021, Council staff reviewed the 2020 rankings and associated justifications to determine if any significant fishery or management changes would result in a change in a risk element ranking. The updated management risk element rankings can be found in Table 5 and the justification for any ranking change can be found below.

## Updated Justifications

The Other Ocean Use risk ranking (moderate-high) for recreational black sea bass did not change from 2020 to 2021; however, the justification for the ranking was modified to be more reflective of current considerations. The justification now states: "potential habitat impacts primarily from offshore energy (wind, gas, oil) development. Offshore wind turbine foundations may create new structured habitat (reef effect) and create new recreational fishing opportunities."

The 2020 risk assessment report included chub mackerel for the first time but was not yet a managed species within the Mackerel, Squid, and Butterfish Fishery Management Plan (FMP). Chub mackerel was formally added to the FMP in 2020 and, therefore, some of the language for the ranking justifications were updated. None of the rankings changed from 2020 (Table 5) and the revised justifications are provided below:

- Management Control: first annual landings limit implemented September 2017 and has not been exceeded. First ABC implemented in Sept 2020, represents a liberalization compared to previous measures.
- Technical Interactions: some marine mammal interactions.
- Other Ocean Use: potential loss of access, particularly for mobile gear, due to offshore energy development (wind, gas, oil) in some fishing areas but most fishing far offshore.
- Regulatory Stability: simpler regulations than some other species (e.g., commercial possession limit only after ACL is close to being exceeded, no minimum fish size limit, no gear restrictions, no recreational management measures except for permit requirement). Management measures first implemented in 2017, revised in 2020.
- Discards: the first ABC and ACL were implemented in 2020 and were not exceeded. Discards generally make up $6 \%$ or less of total catch.
- Allocation: the stock is not allocated and there are currently no allocation concerns.


## Decreased Risk: 5

The Allocation risk ranking for Illex squid decreased from high to low. The Council took final action on the Illex permitting amendment in 2020 and no additional allocation related actions are under consideration.
The Regulatory Complexity risk ranking for recreational black sea bass decreased from high to moderate-high. Changes to recreational management measures have become less frequent and more stable since 2018.

The Allocation risk rankings for longfin squid, commercial spiny dogfish, and recreational Atlantic mackerel decreased from high to low. This change corrects an error for these rankings in the 2020 risk assessment table. As per the Council risk criteria, allocation is either scored as low (no recent or ongoing Council discussion) or high (recent or ongoing Council discussion); however, the 2020 risk assessment ranked the allocation indicator for these species as either low-medium or medium-high. After reviewing the justification and rationale for allocation ranking, it was determined the low ranking was most appropriate.

## Increased Risk: 0

No indicators for the management risk elements changed enough to warrant increased risk rankings according to the Council risk criteria.

## Potential new indicators

## Other ocean uses: Offshore wind development metrics

More than 20 offshore wind development projects are proposed for construction over the next decade in the Northeast (projects \& construction timelines based on Table E-4 of South Fork Wind Farm Draft Environmental Impact Statement). Offshore wind areas may cover more than 1.7 million acres by 2030 (Fig. 5). Just over 1,900 foundations and more than 3,000 miles of inter-array and offshore export cables are proposed to date. Each proposed project has a two-year construction timeline [10]. Based on current timelines, the areas affected would be spread out such that it is unlikely that any one particular area would experience full development at one time.


Figure 5: All Northeast Project areas by year construction ends (each project has 2 year construction period). Data for cumulative project areas, number of foundations, offshore cable area (acres) and offshore cable and interarray cable (mile) are displayed in the graph.

## Other ocean uses: Commercial fishey revenue in lease areas

Based on vessel logbook data, average commercial fishery revenue from trips in the proposed offshore wind lease areas and the New York Bight Call Areas represented $2-24 \%$ of the total average revenue for each MAFMC managed fishery from 2008-2018 (Fig. 6).
The surfclam/ocean quahog fishery was the most affected fishery, with a maximum of $31 \%$ of annual fishery revenue occurring within potential wind lease areas during this period. The golden and blueline tilefish fisheries and spiny dogfish fishery were the least affected, at $3-4 \%$ maximum annual revenue affected, respectively. A maximum of $11 \%$ of the annual monkfish revenues were affected by these areas, with similar effects for the bluefish ( $10 \%$ ), summer flounder/scup/black sea bass (9\%), and mackerel/squid/butterfish (8\%) fisheries. The New York Bight Call Areas represented only $1-5 \%$ of total average fishery revenue from any fishery during 2008-2018, with the surfclam/ocean quahog fishery most affected.


Figure 6: Wind energy revenue in the Mid-Atlantic

## Other ocean uses: Wind lease area overlap with scientific surveys

Proposed wind energy project areas and NY Bight Call Areas interact with the region's federal scientific surveys (Fig. 7). The total survey area overlap ranges from $1-14 \%$ across ecosystem, shellfish, fish, shark, and protected species surveys. For example, the sea scallop survey will have significant overlap (up to $96 \%$ of individual strata) while the bottom trawl survey will have up to $60 \%$ overlap. Additionally, up to $50 \%$ of the southern New England North Atlantic right whale survey's area overlaps with proposed project areas.


Figure 7: Interaction of Greater Atlantic Fisheries Scientific Surveys and Offshore Wind Development

## Implications of offshore wind indicators

Current plans for rapid buildout of offshore wind in a patchwork of areas spreads the impacts differentially throughout the region (Fig. 8).


Figure 8: Zoomed in areas with name of Project, number of foundations within each project area and the states that have declared power purchase agreements.
$2-24 \%$ of total average revenue for major Mid-Atlantic commerical species in lease areas could be displaced if all sites are developed. Displaced fishing effort can alter fishing methods, which can in turn change habitat, species (managed and protected), and fleet interactions.

Right whales may be displaced, and altered local oceanography could affect distribution of their zooplankton prey. Scientific data collection surveys for ocean and ecosystem conditions, fish, and protected species will be altered, potentially increasing uncertainty for management decision making.

We seek Council feedback on whether to include offshore wind development and related indicators within the EAFM risk assessment, and if so, what risk criteria should be applied to these indicators.

## 2021 EAFM Risk Tables

Table 3: Species level risk analysis results; $l=$ low risk (green), $l m=$ low-moderate risk (yellow), $m h=$ moderate to high risk (orange), $\mathrm{h}=$ high risk (red)

| Species | Assess | Fstatus | Bstatus | FW1Pred | FW1Prey | FW2Prey | Climate | DistShift | EstHabitat |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ocean Quahog |  |  |  |  |  |  | h | mh |  |
| Surfclam |  |  | 1 | 1 |  | 1 | mh | mh | 1 |
| Summer flounder |  |  | $\operatorname{lm}$ | 1 |  | 1 | lm | mh | h |
| Scup |  | 1 |  | 1 |  |  | 1 m | mh | h |
| Black sea bass |  | 1 | 1 | 1 |  | 1 | mh | mh | h |
| Atl. mackerel |  | 1 | h |  |  |  | $\operatorname{lm}$ | mh |  |
| Butterfish | 1 |  | lm | 1 |  | 1 |  | h |  |
| Longfin squid | $\operatorname{lm}$ | $\operatorname{lm}$ | $\operatorname{lm}$ | 1 |  | $\operatorname{lm}$ | 1 | mh |  |
| Shortfin squid | $\operatorname{lm}$ | $\operatorname{lm}$ | $\operatorname{lm}$ | 1 |  | $\operatorname{lm}$ | 1 | h |  |
| Golden tilefish | 1 | 1 | $\operatorname{lm}$ | 1 | 1 | . | mh |  | 1 |
| Blueline tilefish | h | h | mh | 1 |  | 1 | mh | 1 |  |
| Bluefish | 1 |  | h |  |  | 1 | 1 | mh | 1 |
| Spiny dogfish | $\operatorname{lm}$ | 1 | $\operatorname{lm}$ | 1 | I | 1 | , | h |  |
| Monkfish | h | $\operatorname{lm}$ | $\operatorname{lm}$ | 1 | 1 | 1 | 1 | mh | 1 |
| Unmanaged forage | na | na | na |  | lm | $\operatorname{lm}$ | na | na | na |
| Deepsea corals | na | na | na |  |  |  | na | na | na |

 (orange), $\mathrm{h}=$ high risk (red)

| System | EcoProd | CommRev | RecVal | FishRes1 | FishRes4 | FleetDiv | Social | ComFood | RecFood |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mid-Atlantic | $\operatorname{lm}$ |  | h |  |  |  | $\operatorname{lm}$ | h |  |

Table 5: Species and sector level risk analysis results; $l=$ low risk (green), $l m=$ low-moderate risk (yellow), mh=moderate to high risk (orange), $\mathrm{h}=$ high risk (red)


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## MEMORANDUM

Date: March 25, 2021
To: Council
From: Kiley Dancy, Staff
Subject: East Coast Climate Change Scenario Planning Initiative: Update

On Wednesday, April 7, the Council will receive an update on the East Coast Climate Change Scenario Planning Initiative. This initiative is in the early stages of development, with the Northeast Region Coordinating Council (NRCC) serving as the primary decision-making body with the addition of South Atlantic representatives. A newly formed core team of technical staff from participating organizations held an initial meeting earlier this month to discuss planning for this process. A facilitator is currently being secured to assist with planning and development of the initiative. Additional information is available in the following briefing materials:

1. Scenario planning core team meeting summary from March 11, 2021
2. DRAFT Scenario Planning Planned Process document as of March 25, 2021

In addition, overview information and past documents are available at a recently created website for this initiative: https://www.mafmc.org/actions/climate-change-scenario-planning.

Attendees: Kiley Dancy (MAFMC), Deirdre Boelke (NEFMC), Roger Pugliese (SAFMC), Sean Lucey (NEFSC), Toni Kerns (ASMFC), Moira Kelly (NMFS GARFO), Brandon Muffley (MAFMC)

The core team reviewed a draft document with an overview of a proposed east coast climate change scenario planning process. The core team recommended some modifications to this document which will be provided to the Northeast Region Coordinating Council (NRCC), including leadership from the SAFMC, for discussion and approval. A summary of the core team comments during this meeting is provided below.

## Core Team Membership

- The core team recommends that the NRCC consider adding Wendy Morrison from NMFS headquarters to the core team, if available. Wendy served on the previous NRCC working group and has valuable experience with other NMFS scenario planning and climate change initiatives.
- The core team also recommends requesting involvement from a Southeast Fisheries Science Center (SEFSC) staff member, if there is someone available with the relevant climate change and fisheries expertise for the South Atlantic region. The core team felt that the group could use another individual with extensive science and climate background. While there was not a specific individual recommended at this time, SAFMC staff will explore potential individuals with relevant expertise that could be requested if the NRCC and SEFSC agree to this participation.


## Facilitation

- The core team was supportive of the proposed facilitation contract with Jonathan Star of Scenario Insight LLC and acknowledged throughout their meeting that much of the planning, including development of project objectives, timeline, and process, should be informed by future discussions with an experienced facilitator.
- The group discussed how the timing of bringing a facilitator on board may overlap with the beginning stages of this initiative. A scope of work for a contractor is in development currently, but it is still unknown exactly when a facilitator may start work on this project. This will influence the timing of the beginning stages of the project including scoping.


## Objectives and Expected Outcomes

- The core team agreed that identifying clear objectives early is important but noted that the advice of a facilitator on the most effective and efficient way to develop objectives will be important on this subject.
- The core team will draft strawman potential objectives for NRCC feedback, targeting the NRCC's late May meeting. Ideally, the facilitator would be able to provide advice on this subject as well prior to this May meeting, but the timing may be tight. Development of objectives can be an iterative process.
- The core team noted that it would be beneficial to leave objectives and focal questions as draft through the scoping process so that they can be refined if needed based on stakeholder input. This would improve buy-in and allow stakeholders to provide some early direction for this project.
- The NRCC should also review and discuss the preliminary list of possible expected outcomes currently in the draft document. These outcomes are something that the core team, facilitator, and NRCC should continue to develop as this process unfolds, but it will be important to clarify for stakeholders what deliverables they can expect out of this process.
- The draft outcomes in the document are relatively standard for a scenario planning process, but more specificity may be needed eventually to make them more relevant and specific to east coast management processes and enhance understanding by stakeholders.
- Eventually, clarification will be needed on how specific and far reaching the expected outcomes will be. The core team notes that the results will generally be more along the lines of broader organizational planning and strategizing, and recommendations related to governance issues. This process is not likely to result in highly specific fishery management plan level proposed changes. Scenario planning is more strategic and qualitative, not quantitative or species specific like a Management Strategy Evaluation.
- Region-specific applications and recommendations could be considered later in the process, but the core team would be wary of doing so in place of coast-wide recommendations and applications, given that this initiative should be aiming for improved coordination, cooperation, and multi-jurisdictional governance structures.


## Timeline

- Overall, the group felt that the tentative timeline presented to the NRCC in November 2020 (see Nov. 4 memo from MAFMC staff ${ }^{1}$ ) was overly ambitious and will likely need to be pushed back especially in the beginning stages. A facilitator has not yet started work on this process, and in addition, the group noted that scoping is likely to take longer than initially planned (see "Process and Scoping" below).
- The aim to have a scenario building workshop in late Fall 2021 may be reasonable but it depends on how quickly the scoping process gets started and how extensive the scoping phase is (e.g., use of surveys, multiple public meetings, etc.) as well as workshop preparation.
- NRCC feedback is needed on the feasibility of the draft timeline presented in the proposed process document as well as commitment from each body to provide adequate staff and resources.


## Process and Scoping

- Because scenario planning will be new to most participants (i.e., managers and stakeholders) and may cause confusion, the core team recommends investing the time and effort into ensuring that participating organizations and their stakeholders are wellinformed about scenario planning basics and the goals of this project. Making sure the

[^52]scoping process is done well will help the NRCC get useful scoping input and help build stakeholder buy-in for this initiative.

- One way to contribute to up-front education would be some kind of kick off webinar and/or introductory video or presentation that could be presented to each management body, distributed to interested stakeholders, and posted online.
- Facilitator advice should be sought on the appropriate level of scoping and introductory materials. This might depend on the overall plan for how in-depth this process will be and the level of stakeholder engagement at each step. Scoping could involve regional workshops to get regional concerns first, followed by potential areas of overlap in concerns, but this should be further discussed with a facilitator.
- The core team noted that scoping feedback does have the potential to be overwhelming given the number and diversity of stakeholders involved along east coast. The need to get useful, focused input in a manageable way will have to be balanced with transparency in the process and reaching out to a broad stakeholder audience. More open-ended feedback would be more difficult to analyze, so the core team may need to consider asking fairly targeted questions.
- The proposed two-workshop model process provides a few major opportunities for potential stakeholder involvement: during scoping/development of information leading up to the first workshop, participating in the scenario building process (first workshop), and participating in the process to address applications of the scenarios (potential second workshop). Taking a broader initial approach to stakeholder engagement during scoping should be considered, while the workshops and latter stages of the process will likely need to be more focused and limited in terms of participation.


## Other Comments

- The group discussed how to coordinate updates and discussions for individual management bodies. For example, the MAFMC and NEFMC will coordinate information for updates on this topic at their respective April meetings. The ASMFC intends to use similar information to discuss this topic at their spring meeting in May, prior to the NRCC meeting. However, the SAFMC met in March and will not meet again until June, so they would be unable to review and discuss this topic as a full body before the NRCC discusses this topic in May. Due to different timing of various meetings, the level of information or discussion for each group may be different throughout this process but coordination of timing and messaging to the extent possible would be helpful and the core team discussed preparing consistent slides and documents for future presentations.
- The core team noted that SAFMC representation on the NRCC for discussions related to this initiative is currently expected to consist of the SAFMC Executive Director. The core team noted that it may also be beneficial to include SAFMC Council leadership (e.g., the Council chair) in these discussions.


## Proposed Framework for East Coast Climate Change Scenario Planning Initiative DRAFT for NRCC Review

March 2021
Overview
In November 2020, the Northeast Region Coordinating Council (NRCC) agreed to move forward with an east coast scenario planning initiative as a way to explore jurisdictional and governance issues related to climate change and shifting fishery stocks. The NRCC consists of leadership from the Atlantic States Marine Fisheries Commission (ASFMC), Greater Atlantic Regional Fisheries Office (GARFO), MidAtlantic Fishery Management Council (MAFMC), New England Fishery Management Council (NEFMC), and Northeast Fisheries Science Center (NEFSC). In addition, the NRCC and the South Atlantic Fishery Management Council (SAFMC) agreed that the SAFMC should participate in the process as well given that governance issues related to climate change and shifting stocks will need to be addressed along the entire East Coast.

Scenario planning is a tool that managers can use to test decisions or develop strategy in a context of uncontrollable and uncertain environmental, social, political, economic, or technical factors. ${ }^{1}$ It is a structured process for managers to explore and describe multiple plausible futures and to consider how to best adapt and respond to them. Scenario planning is not a tool for predicting future conditions; rather, scenarios are essentially stories about plausible combinations of future conditions that allow for explicit consideration of uncertainty in future conditions. Scenarios are created in response to a focal question developed based on a major strategic challenge faced by an organization.

This document describes a proposed plan for a coordinated East Coast Scenario Planning Initiative. Some of the content below is adapted from the July 2020 recommendations of an NRCC scenario planning working group, ${ }^{2}$ which was formed in 2020 to explore this concept and provide recommendations to the NRCC. The working group included representatives from all NRCC partners as well as NMFS Headquarters and the SAFMC.

As this process develops, additional information and documents will be posted to a dedicated website: https://www.mafmc.org/actions/climate-change-scenario-planning.

## Core Team

The core team for this project, listed below, will serve as the primary technical group working on this project in coordination with a contracted facilitator. Along with the facilitator, the core team will be responsible for much of the research, planning, coordination, and compiling of materials for this process. The core team is analogous to a Fishery Management Action Team (FMAT) or Plan Development Team (PDT) used in the development of Council management actions. The NRCC may determine that additional expertise is needed on this technical working group.

[^53]| Organization | Representative |
| :---: | :---: |
| MAFMC | Kiley Dancy |
| ASMFC | Toni Kerns |
| NMFS GARFO | Moira Kelly |
| NEFMC | Deirdre Boelke |
| NMFS NEFSC | Sean Lucey |
| SAFMC | Roger Pugliese |

## Facilitation

The NRCC agreed that an experienced process facilitator should be contracted to support the scenario planning exercise through the majority of the process. The scope of work for a facilitator is in development as of March 2021. The facilitator will be expected to work with the core team on major steps of this process including conducting a scoping process for gathering preliminary stakeholder input, developing materials and logistics for a scenario building workshop, facilitating and summarizing a scenario building workshop, and facilitating a follow up process to explore applications of the scenario building outcomes.

Funding for the facilitator will be provided by The Nature Conservancy (TNC), which was awarded a grant from the Gordon and Betty Moore Foundation to support East Coast scenario planning efforts in partnership with the NRCC. The Atlantic States Marine Fisheries Commission has agreed to administer these funds, which are expected to cover some costs of this initiative including process facilitation, meeting facilities and/or technology contracts for remote meeting platforms, potentially public invitational travel, and other miscellaneous expenditures such as printing, outreach, or scoping surveys. It is expected that the Councils, Commission, and agency personnel would have their respective participation costs paid by their organization.

## Benefits of Scenario Planning

As noted above, scenario planning is a tool that managers can use to test decisions or develop robust strategies in a context of uncontrollable and uncertain environmental, social, political, economic, or technical factors. In the case of the NRCC, conducting an east coast scenario planning exercise will be designed to evaluate challenging climate change related management and governance issues in a changing ocean environment across multiple jurisdictions. Scenario planning can be a useful tool in not only exploring and describing multiple plausible futures, but also to advance discussion of how an organization can plan for or adapt to different possible future scenarios.

Scenario planning can consider broader uncertain forces in the world such as societal change, climate and environmental change, as well as changes in the policy and legal environment, and consider how these drivers that are outside of the organization's control may affect organizational priorities and planning. Some benefits of scenario planning are that this process:

- Forces participants to explore their underlying assumptions and perceptions about the range of possible future conditions.
- Reduces the tendency for managers to become overconfident in their expectations of future conditions, too focused on a limited view of the future, or paralyzed by uncertainty.
- Provides a way to organize complex information about changing conditions and stimulates creative and innovative thinking about how to prepare for change, in a way that is disconnected from the typical regulatory process.
- Provides an opportunity for proactive thinking and planning, allows participant groups to be well positioned to be collectively ahead of the curve instead of merely reacting to new and dynamic information as it occurs.
- Can enhance stakeholder engagement, provide diversity and equity in decision making, and foster creativity and social innovations from stakeholders.


## Project Objectives and Expected Outcomes

The NRCC has identified the major issue to be addressed through this process as governance and management issues related to climate-driven changes in the fisheries, particularly changing stock distribution. The core team, facilitator, and NRCC will work to refine specific project objectives and focal questions to be addressed, as it is important to clarify the objectives of scenario planning at an early stage. In addition, these groups will identify a future time scale over which to evaluate driving forces in the fisheries and develop scenarios of future conditions, i.e., should the process consider possible conditions over the next $10,20,30$ years or more? The time frame should be long enough to sufficiently consider longer term uncertainties and changes in conditions but should be short enough that near-term actions and strategies would still be relevant to influencing responses to future conditions. These objectives and time frame may need to be refined as the project progresses, particularly following a stakeholder scoping process.

The core team, facilitator, and NRCC will also work to further clarify the expected outcomes and products of this initiative. Some possibilities include:

- Development of near-term and long-term management priorities related to scenario outcomes. Specifically, managers can use the resulting scenarios to prioritize near-term actions that are likely to be beneficial under a range of future conditions and by planning to avoid actions that may reduce flexibility or increase the difficulty of adapting to future conditions. These recommendations may be organization-specific, broadly applicable across organizations, or some combination of both.
- Develop a better understanding of the limitations of current systems that may not be nimble enough to respond to change.
- Develop policy recommendations for broader governance changes that would improve our ability to adapt to varying future scenarios.
- Develop a list of data gaps, research needs, and monitoring needs for changing conditions.


## Structure for Oversight and Participation

The ultimate decision-making management body for this process will be the NRCC with the addition of at least one South Atlantic representative. Given the number of management groups involved and the variation in their decision-making processes and timelines, it is unlikely to be feasible to seek explicit approval at each process step from each management body. Instead, it is expected that participating organization representatives will provide periodic updates to their respective management bodies and seek their feedback for incorporation into the core team/NRCC process.

It is also possible that Council and Commission advisory bodies could be used to inform various parts of the process where appropriate. Specifically, Committees, Advisory Panels, Technical Committees, and/or SSCs could provide input during the scoping process, during the developing of specific driving forces to be explored during a scenario building workshop, and in the development of applications and products from this process. Members of these groups could also be identified to participate directly in the planned
workshops. The core team should discuss the feasibility of involvement of these groups, weighing the additional complexity of involving many different groups.

As the process develops, further discussion will occur to identify how participants will be directly involved in the development of the scenarios and/or the development of applications and recommendations.

## Proposed Scenario Planning Process and Timeline

The proposed scenario planning process consists of six major steps and is outlined in the table below. This process is adapted from the recommendations of the NRCC working group in July 2020 and is loosely based on the scenario planning process outlined in the NPS 2013 scenario planning handbook.

The NRCC working group recommended that the NRCC adopt a two-workshop model: the first workshop would be held to develop the draft scenarios in phase 4 , and the second workshop would be held in phase 5 to discuss how the insights from these scenarios should be applied in the management process, including developing recommendations for management and governance strategies and priorities.

Table 1: Proposed process for scenario planning, adapted from NRCC working group July 2020 recommendations and based loosely on NPS 2013 Handbook stepwise process. Approximate timeline is tentative pending further NRCC discussion.

|  | G0al | Steps | Outcomes/Products | Who/What | When |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Phase 1: <br> Orientation | Establish project objectives, guidance structure, process, and timeline | - Form core team <br> - Develop facilitation contract <br> - Establish process, purpose, and scope of project, including focal issue (strategic challenge) to explore <br> - Determine decisionmaking structure <br> - Determine type of desired outcomes <br> - Plan for scoping process | - Framework and timeline for a proposed process <br> - Contract with outside scenario planning expert/facilitator <br> - An understanding of the purpose, desired outcomes, focal issue, and scope of project <br> - Plan for scoping | - Core team and facilitator with input from NRCC if needed | Late 2020 Early Summer 2021 |
| Phase 2: <br> Scoping | Gain stakeholder perspectives on focal issue and external driving forces for east coast fisheries | - Work with core team and facilitator to conduct structured outreach ("scoping" process) <br> - Refine project objectives and focal question if needed based on scoping feedback | - Synthesize public and stakeholder input for further use in process, particularly regarding focal question and external driving forces to be further explored during scenario building workshop <br> - Introduce stakeholders to scenario planning and potential application in this context <br> - Build preliminary list of possible workshop participants | - Core team, facilitator, interested stakeholders and public | Summer 2021 |


|  | G0al | Steps | Outcomes/Products | Who/What | When |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Phase 3: Exploration | Identify and analyze drivers, variables, trends, and uncertainties | - Identify and describe drivers, variables, and uncertainties from interviews with experts, advisory bodies, core team, public input results <br> - Identify potential impacts of these drivers <br> - Plan for discussion during synthesis phase (i.e., scenario building workshop) | - A list of drivers, variables, or uncertainties that are likely to impact east coast fisheries over the specified time horizon <br> - Supporting introductory information on these drivers, such as overview text, tables, conceptual models, charts, or maps that will help process participants discuss potential impacts | - Core team \& facilitator, with input from experts, management \& advisory bodies, stakeholders | Fall 2021 |
| Phase 4: <br> Synthesize <br> \& Create <br> Scenarios | Produce small number of scenarios using critical drivers and potential impacts identified in Phase 3 | - Determine critical uncertainties with large impact on focal issue <br> - Hold workshop to build scenario frameworks and choose scenarios <br> - Develop scenario narratives <br> - Review scenarios for plausibility | - 3-5 plausible, relevant, challenging and divergent scenarios using critical uncertainties to inform, inspire and test actions/strategies | - Core team works with input from NRCC, others. <br> - Planned workshop to create scenarios | Late 2021- <br> Early 2022 |
| Phase 5: Applications | Answer "So what?" questions: What are the impacts of these plausible futures? What can we do about it? | - Identify scenario implications <br> - Use scenarios to inform development of management strategies and priorities, and policy recommendations for future governance and research <br> - Develop recommendations applicable to collective group of participants and/or individual management organizations | - Report with list of actions, strategies, or areas for additional research based on discussions initiated by scenarios | - Core team works with input from NRCC, others. <br> - Workshop to understand management implications | Spring/Summer $2022$ |
| Phase 6: Monitoring | Identify important indicators (trigger points) that can signal changes in the environment as future unfolds | - Select indicators to monitor <br> - Monitor environment changes | - List of indicators and early warning signals for continued research and monitoring <br> - A monitoring strategy | - Core team works with input from NRCC, others | $\begin{aligned} & \text { Summer/Fall } \\ & 2022 \end{aligned}$ |

# MEMORANDUM 

Date: $\quad$ March 28, 2021
To: $\quad$ Michael P. Luisi, Chairman, MAMFC
From: Paul J. Rago, Ph.D., Chair, MAFMC Scientific and Statistical Committee
Subject: Report of the March 2021 SSC Meeting

The SSC met via webinar on the $9^{\text {th }}$ and $10^{\text {th }}$ of March, 2021 to address the following topics: (1) review results of Index-Based Methods and Harvest Control Rules Research Track Assessment; (2) review relevant data on Blueline Tilefish and recommend specifications for 2022-2024 ABCs; (3) review results of 2020 Golden Tilefish fishery-independent longline survey and draft results of Management Strategy Evaluation; (4) review Northeast Fisheries Science Center's (NEFSC) State of the Ecosystem (SOE) for 2021 and its responses to previous suggestions, and provide further review comments; (5) review and discuss ongoing activities of the Economic Work Group case study on redevelopment of the Research Set-Aside Program; and under Other Business, (6) revisit SSC leads on species and special topics, review 2020-2024 stock assessment schedule, long term research priorities of Council, and update planning for the National SSC meeting (Attachment 1).

All 20 SSC members participated in the meeting on both days (Attachment 2). Other participants included Council members, Council staff, NEFSC and GARFO staff, NMFS Headquarters staff, industry, and the general public. Council staff provided outstanding technical support before, during and after the meeting.

All documents referenced in this report can be accessed via the SSC's meeting website https://www.mafmc.org/ssc-meetings/2021/march-9-10

## Index Based Methods and Harvest Control Rules Research Track Assessment Results

Dr. Chris Legault from the Northeast Fisheries Science Center (NEFSC) presented the results of the December 2020 peer review of the Index Based Methods (IBM) and Harvest Control Rules Research Track Assessment (RTA). This is the first RTA that focused on a theme or process topic rather than a single species stock assessment. The SSC received a comprehensive overview of the scope and findings of this RTA and its potential implications for setting ABCs for Mid-Atlantic stocks.

The IBM concept was motivated by the need to consider alternative methods for generating catch advice for assessments that were judged unacceptable for catch advice owing to extreme retrospective patterns or other measures of lack of fit. In these cases, a variety of so-called "Plan B" methods have been used. However, there has not been a systematic review of the performance of these alternative methods. The IBM review addressed the performance of a suite of candidate methods and harvest control rules. Through an extensive set of simulation experiments, a team of scientists from the Center, academia, and Councils evaluated the short and long-term performance of various IBMs. The simulations were based on an underlying groundfish-like "operating model" in which the true state of nature is known. Performance of the alternative models was then evaluated with respect to their ability to recover the known state of nature and more importantly, to avoid both overfishing and creation of an overfished condition. In addition, a broad range of performance metrics was evaluated. These metrics included consideration of biological reference points as well as catch trajectories and their variability, topics with important economic implications.

Dr. Legault provided a detailed overview of the process of conducting the working group virtually. Challenges included the need for regular meetings ( 41 total), formulation of the operating model, consideration of the factors creating the underlying retrospective pattern, selection of candidate index-based models, identifying relevant performance metrics, designing the simulation experiments, distributing the workload, and interpreting the simulation results. The SSC applauded the extraordinary efforts of the assessment team and the leadership of Dr. Legault.

Over a quarter million simulations were conducted as part of 252 different experiments that compared performance of 14 different models under 18 different simulation scenarios. Results for each of these experiments were saved in a database and can be analyzed further by future investigators. Results suggested that certain classes of models worked better than others, depending upon the true underlying cause of the retrospective pattern. Attempts to discern the reasons for these differences were not successful but further investigations may be insightful. Moreover, an ensemble approach of multiple models did not perform better than individual models. The Working Group was not able to address the topic of alternative biological reference points because none of the candidate index-based models allow for alternative definitions of both $\mathrm{F}_{\text {msy }}$ and $\mathrm{B}_{\mathrm{msy}}$ proxies.

Perhaps the most important conclusion of the IBM review was that none of the Index Based Methods outperformed the original age-based model when it was adjusted for the retrospective pattern. This suggests that retention of the original model, even when severe retrospective patterns are evident, may be preferable to replacing the model with an IBM.

The presentation was followed by an extensive discussion by the SSC. Several members inquired about the bases for inducing retrospective patterns. These were changes in natural mortality (M) and missing catch. Notably absent was consideration of changing catchability in the surveys, perhaps due to shifting spatial patterns of abundance. Spiny dogfish for example, experienced a large shift in distribution beginning about 2006. Dr. Legault responded that this was indeed considered but the committee was not able to consistently induce retrospective patterns with this mechanism. Dr. Legault also noted that earlier work had identified differing spatial patterns of exploitation were important causal factors for retrospective patterns.

Other members commented that changes in growth rates could affect the overall force of mortality on age groups and the possible influence of an alternative stock-recruitment relationship. Such changes might also complicate the interpretation of age-length key and cause aging errors. Potential density-dependent IBMs were not considered since many of these approaches require external knowledge or explicit assumptions about the current degree of depletion of the resource. Members also noted that the absence of tuning of IBM approaches, as one would do in a real-world application, limited the generality of the conclusions. Similar concerns were raised about the lack of consideration of multiple simultaneous causal factors (e.g., changing $M$, changing catch veracity, changing catchability) would also limit the generality of conclusions. Dr. Legault noted that these factors could indeed alter the perceived utility of the IBMs, but lack of time and difficulties of designing and interpreting simulation results were problematic. As a first approximation, failures to perform adequately when a single known factor was inducing the retrospective pattern does not bode well for enhanced performance when multiple causal factors were present.

The SSC further inquired about the utility of the IBM simulation environment to address the problem of missing survey and other data in 2020. Missing surveys and incomplete catch data will severely affect the scientific bases for determination of OFLs by stock assessors and the derivation of ABCs by the SSC. Members noted that the SSC has occasionally rejected the results of peer reviews and might do so in the future. A question was raised about the potential implications of the IBM results for the upcoming Black Sea Bass assessment. Specifically, it was noted that the current spatial model for Black Sea Bass has differing reciprocal retrospective patterns for the North and South components. However, the implications of these patterns for an overall OFL estimate would require further work at the time of the assessment.

Overall, the comments were constructive and positive. The SSC again noted the valuable advances of the IBM Working Group and encouraged further work on this assessment topic and others amenable to extensive simulation testing.

## Blueline Tilefish

Matt Seeley (Council staff) summarized the current status of management and the most recent AP Fishery Performance Report for Blueline Tilefish. Matt also reported on the initial catch results from the mandatory electronic reporting by anglers. This reporting system was designed to improve the quality of recreational landings data. However, reported landings to date are extremely low, and overall compliance or knowledge of the program is unknown. Advisors noted that Blueline Tilefish is often an alternative species for vessels fishing offshore for tuna. During "good" tuna years, Blueline Tilefish landings are expected to decline. The 2021 Acceptable Biological Catch (ABC) recommended in 2018 by the SSC for the Mid-Atlantic management area (north of the Virginia/North Carolina border) was $\mathbf{1 0 0 , 5 2 0}$ pounds ( $\mathbf{4 5 . 6 0} \mathbf{~ m t}$ ). Based on recent fishery performance, Council staff recommend status quo specifications for Blueline Tilefish for 2022-24. No compelling evidence from either the data update or the reports from the Advisory Panel (AP) suggested the need to change the current ABC.

The SSC expressed concern about the precision of recreational harvest estimates for Blueline Tilefish. Blueline Tilefish are infrequently observed in intercept angler interviews and have high PSEs. It was noted that it may take several years before these data can be interpreted. To
compensate for the low frequency of observations, a Delphi Process (i.e., expert judgement) conducted in 2015 has been used to impute recreational landings for private angler landings as $105.16 \%$ of charter vessel landings. The SSC expressed concerns about this methodology. The portion of the stock north of Cape Hatteras, NC is jointly managed with the South Atlantic Fishery Management Council. The MAFMC is allocated $56 \%$ of the overall ABC determined jointly by the MAFMC and SAFMC. This conclusion was based on the application of the DLMTool and the 2017 pilot tilefish survey and has not been changed since 2018.

As in 2020 when the 2021 ABC was affirmed, concerns about the stock assessment were raised. The SSC had previously applied a $150 \%$ CV to the OFL to derive the ABC. Ensuing discussions noted that the data poor condition of this stock was unlikely to change soon. Current knowledge, even in the Southeast US is inadequate to manage this stock on the quantitative basis desired. Ongoing efforts to acquire new data are commendable but at present there are no compelling arguments to change the status quo recommendations. The recommendations of the SSC, captured below, reflect the dilemma. Some members of the SSC expressed the concern that specifying the ABC for the 2022-2024 period effectively guarantees no additional work will be focused on this species, because the data analyses and assessment evaluation is tied directly with the need to conduct an assessment to set an ABC. But we note that essentially, very little is known about this stock and the fishery it supports, and that restricting the fishery removes the principal source of information we have on this stock. The SSC recommends review of existing data annually during the 2022-2024 specification period.

Following this general discussion, the SSC addressed the Terms of Reference for Blueline Tilefish. Responses by the SSC to the Terms of Reference (in italics) provided by the MAFMC are as follows:

For Blueline Tilefish, the SSC will provide a written report that identifies the following for the 2022-2024 fishing years:

1) The level of catch (in weight) associated with the $A B C$ for each requested fishing year. If appropriate, specify interim metrics that can be examined to determine if multi-year specifications need reconsideration prior to their expiration;

The SSC recommends an ABC of 100,520 lbs (45.6 mt) for the 2022-2024 fishing years. This recommendation is the same as for 2019-2021, because there is no updated information on stock size, productivity, or stock structure to update the OFL. The SSC applied an OFL CV of $150 \%$ to arrive at this ABC in 2018, based on a data-limited assessment method using data through 2015.

The SSC notes that a new stock assessment is not scheduled until 2024, so the lack of information for establishing ABC is likely to continue into the 2025 fishing year.

There is considerable uncertainty in the assumptions underlying recreational catch estimates, and further uncertainty in 2020 data arising from pandemic impacts. In addition, commercial catch and value have increased since 2014, with an overage in 2020.

Interim metrics: The SSC will review the following information in 2022 and 2023 to determine whether the ABC specifications should change: (1) any regulatory changes and how they may have
altered fishery performance; (2) total catch by fishery sector; (3) size distribution in the catch; (4) spatially explicit catch, including recreational; and (5) CPUE and size distributions from fishery independent surveys.
2) The most significant sources of scientific uncertainty associated with determination of the ABC ;

- The ABC is based on OFL from a data-limited assessment method using data through 2015.
- There is no dedicated survey and little fishery data collection in the Mid-Atlantic to evaluate "rumble strip" metrics such as changing size composition over time.
- The privatelrental mode estimates of recreational catch are based on a Delphi method that relies on a rescaling of the charter mode landings. Decisions about which portion of the time series to use in modeling affects the CV input substantially.
- Scientific review of the uncertainty associated with the Delphi method in general, and how its application should be modified for changes in recreational fishing (ratio of charter to private), is lacking.
- The model used by the SSC to set the ABC assumes that the Blueline Tilefish stock is a single stock, but the stock in the subarea north of Cape Hatteras could not be assessed with the portion of the stock to the south due to data limitations.
- The DLMTool implies a great deal of uncertainty with input data and the underlying population model. For example, growth parameters used in modeling were derived from samples taken in the recreational fishery that may be from the MAFMC or SAFMC stock areas. The DLMTool may have limited accuracy even if the assumptions are met.
- The steepness parameter for the stock recruitment relationship was based on estimates from the SEDAR 32 assessment and the Shertzer and Conn (2012) paper, but it remains highly uncertain.
- The DLMTool assumes that the carrying capacity and productivity of Blueline Tilefish in waters north of Cape Hatteras is constant. It is unclear whether the spatial expansion of the fishery since its inception represents increased targeting of the fish by harvesters, increasing spatial range (and hence increasing productivity), or a shift northward in the range of the population as result of climate change.
- Increases in recreational catch in the Mid-Atlantic may reflect targeting of Blueline Tilefish when tuna fishing is poor.

3) Research or monitoring recommendations that would reduce the scientific uncertainty in the ABC recommendation and/or improve an assessment;

- Collect more data targeted directly at Blueline Tilefish in the Mid-Atlantic (e. g., similar to the 2017 longline survey). Collection of biological samples from existing research surveys, on board observers and commercial port sampling should be high priorities. Analysis of these data should also be prioritized.
- Consider prioritizing a new joint SEDAR and NRCC Research Track assessment prior to 2024
- Improve collaboration with SEFSC to ensure that information is coordinated and the full species range is covered
- MRIP Rare Events working group research may be able to provide assistance.
- Research into uncertainty related to Delphi catch estimation methods and application to recreational fisheries
- Improvements in the accuracy of the catch time series with improved spatial resolution would be an important enhancement to estimating ABCs in the future.
- Implementation of additional fishery-independent sampling will enhance understanding of the dynamics and biological characteristics of the stock and the range of management procedures that can be applied in estimating $A B C$.
- The most recent information on stock structure of Blueline Tilefish indicates a single population along the Atlantic seaboard. The level of genetic exchange estimated suggests a high degree of connectivity in the population, but it is uncertain whether this occurs through early life stage distribution or movement of adults within the population. Consequently, the potential for localized depletion of fish in specific areas is unknown and worthy of study. There is a potential to leverage work on this species if similar research is conducted on Golden Tilefish.
- The selectivity of the commercial fishery in the northern part of the range needs to be determined.
- No age data are used in the current assessment because of uncertainty in age determination. Research into the reliability of aging and determination of growth parameters would provide additional approaches to assessing the stock and should be a high research priority well in advance of future assessments.
- There are dynamic non-equilibrium methods that are not yet in DLMTool that may be more appropriate and should be investigated.

4) The materials considered by the SSC in reaching its recommendations. All of these documents are available at https://www.mafmc.org/ssc-meetings/2021/march-9-10;

- Staff Memo: 2022-2024 Blueline Tilefish Specifications
- 2021 Blueline Tilefish Advisory Panel Fishery Performance Report
- 2021 Blueline Tilefish Fishery Information Document
- March 21, 2018 SSC Meeting Report
- Presentation/report on 2020 golden tilefish survey
- SEDAR and NRCC Assessment schedules

5) A conclusion that the recommendations provided by the SSC are based on scientific information the SSC believes meets the applicable National Standard guidelines for best scientific information available.

The SSC believes that the recommendations provided are based on scientific information that meets the applicable National Standard guidelines for best scientific information available.

## Golden Tilefish

José Montañez (Council Staff) provided an overview of upcoming management actions for Golden Tilefish. As part of the Council's efforts to address Executive Order 13921 on Promoting American Seafood, the Council is initiating a framework action to allow for Golden

Tilefish specifications be set for more than three years. This action will also consider changing the fishing year from November 1 - October 31 to January 1 - December 31. The first framework meeting to consider this action is scheduled for the April Council meeting A Management Track Assessment of Golden Tilefish will be conducted in June 2021. Results of this assessment will be reviewed at the July 2021 meeting of the SSC. Catch recommendations for 2022 will be revisited and ABCs for 2023-24 will be set. In addition, a Research Track Assessment is scheduled for June 2024, results of which will be used to set ABCs for 2025 to 2027.

Following José's presentation, Dr. Jill Olin (Michigan Technological University) and Paul Nitschke (NEFSC) summarized the results of a fishery-independent longline survey for Golden Tilefish in 2020. The 2020 survey built upon the success of the 2017 pilot survey but was restricted to stock regions where Golden Tilefish, rather than Blueline Tilefish, predominated.

The survey further refined the allocation of tows within strata, reduced the number of hook sizes ( $8 / 0$ and $12 / 0$ ), and monitored the number of baited and unbaited hooks within each set. These changes are important for improving the precision of the survey, quantifying hook selectivity, and measuring the magnitude of competition for gear, respectively. Every form of data collection imposes constraints on the subsequent uses of the data. Fixed gear in particular is strongly influenced by volitional activities of the fish such as swimming into a gill net or pot, or in the case of a longline, electing to consume the bait. To help quantify environmental factors that might affect fish behavior, the investigators included current meters on each set. The target soak time of 50 minutes was often exceeded; nearly $76 \%$ of the hooks were retrieved without fish or bait. Ten percent of the hooks were retrieved with bait and $14 \%$ of the hooks had fish. The implied competition for hooks has implications for future metrics of trend. Sets with high frequencies of baitless hooks or captures of non-target species will compromise the ability to detect abundance changes in Golden Tilefish unless adjustments are made for hook competition.

Discussions by the SSC noted the importance of estimating a domed selectivity pattern in the stock assessment. This may be driven by the selectivity of the hooks, as well as spatial or behavioral differences of larger fish. Results of the longline survey will provide experimental evidence to isolate the effects of hook selectivity. The SELECT methodology of Millar and Fryar was suggested as a possible analytical method. Collection of bottom current data may allow for estimation of likely bait plumes and help explain differences in catch rates.

The investigators and fishermen were commended by the SSC for the overall quality of the study, the improvements from the 2017 pilot study and especially for their ability to conduct a large-scale survey during the pandemic.

The SSC also received a presentation by Dr. John Wiedenmann on an ongoing MSE study of harvest control rules for Golden Tilefish. The SSC was encouraged by the initial results and suggested a number of scenarios related to recruitment that may prove useful for further modeling as well as specifications of ABCs.

## 2021 State of the Ecosystem Report

Dr. Sarah Gaichas presented the 2021 State of the Ecosystem Report (SOE), Mid-Atlantic edition, and a summary report of the responses by the Ecosystem Dynamics and Assessment Branch (EDAB, NEFSC) to questions and comments from both the New England and MidAtlantic Councils on the 2020 SOE. EDAB staff assigned the comments into 33 different categories and Dr. Gaichas focused her presentation on these items. The Covid pandemic affected all aspects of report preparation and collection of underlying data. Nonetheless NEFSC and the SOE collaborators were was able to address or begin addressing 25 of the 33 categories.

Dr. Gaichas began with a general overview of the SOE report and provided some background on its evolution since 2016. The report now features a three-page summary that includes a report card on performance metrics for management objectives, a summary of risks affecting attainment of management objectives and a graphical summary of a selected ecosystem theme. For 2021 this theme was multiple system drivers and how they can lead to regime shifts in ecosystem organization. An icon-oriented glossary was developed to facilitate communication to a broad audience. Graphs have a common structure of yearly data values, a color-coded measure of trend, and a focus on recent trends. Links for each of the graphic were provided that included the technical methods as well as the data used, allowing readers to interrogate the conclusions at varying levels of detail. The SSC greatly appreciated the thorough response to earlier concerns. Details of the presentation and discussion follow.

Comments by the SSC included consideration of aggregate metrics of overall exploitation rates, the influence of resident species moving north and immigrant species from the south, and a need to consider the entire Northwest Atlantic to address such concerns. SSC members complimented Dr, Gaichas on the quality of the report and followed up with several questions of clarification about indices. However, a common theme was an appreciation of syntheses that can translate into making decisions. In particular, a more focused effort on how broader ecosystem indices might transfer into uncertainty of OFL estimates to derive ABCs could be a valuable advance. Ideally, the linkage of SOE with the appropriate level of OFL CV could become a regular part of future analyses.

The SSC commended the responsiveness of the SOE team, including NEFSC and many partners, to various requests for improvements to the SOE. Further refinements to the SOE may be reaching the point of diminishing returns if there is not a commensurate focus on how to actually use the results of the SOE for decision making. Toward this end, the SSC was broadly supportive of establishing a working group to identify information and trends in the SOE that can be used in the setting of ABCs. The current framework for identifying the appropriate coefficient of variation (CV) of the overfishing limit (OFL) is one option. Others may exist but will need to be identified and evaluated. Ultimately, the link of SOE to management rests with critiquing indices and linking them to the general objectives of fishery management under MSA. An emphasis on the use of the SOE findings for shorter term objectives of fishery management would not detract from the use the report for longer term issues of climate change, regimes shifts, and offshore energy development.

## Update on Economic Work Group Case Study

Dr. Geret DePiper summarized the activities of the Economic Work Group which will be focusing on the economic aspects of redevelopment of the Research Set Aside (RSA) Program for the MAFMC. The Work Group hopes to provide the Council with relevant information and advice on the economic factors that could improve the chances of creating an efficacious and effective RSA program. The Working Group is focusing on informing three primary facets of RSA design: 1) selecting candidate fisheries and research projects to be funded, 2) maximization of funds available for research, and 3) enforcement and monitoring of quotas.

The first task recognizes that research priorities are established by many different groups, and it will be useful for the SSC Work Group to provide the Council with advice and tools to evaluate the economic and other trade-offs for selecting an optimal suite of research projects. Included in the criteria to be evaluated is the relevancy of the intended research results to current management operational or scientific challenges, and the ability of the proposed research methods and results to satisfy scientific peer review standards.

The second task of maximizing revenue for research involves consideration of alternative mechanisms for setting up auctions and a review of past practices implemented by the MAFMC. Various approaches are being investigated including a proposed detailed examination of historic bidding process. A wide variety of considerations specific to the MAFMC will be addressed.

Enforcement and monitoring of landings by successful bidders was insufficient to prevent illegal activities by some bidders. Hence the third task of the Economic Work Group will be to investigate economic incentives around proposed approaches that may reduce the likelihood of future noncompliance.

The Economic Working Group will engage with the Council staff, the Research Steering Committee (RSC), and full Council to ensure that these activities mesh with planned activities. Moreover, it will also coordinate with the NEFSC, GARFO, and OLE to ensure that the research is directed toward critical needs and is consistent with policy and legal requirements. An RSA workshop in Fall 2021 has been proposed as a means of ensuring inclusion of a broad range of perspectives. The format for the workshop is under discussion within the RSC.

The SSC discussion addressed critical issues of how research projects would be prioritized and reviewed, and how projects could be linked to key scientific and management decisions. The SSC was supportive of the overall framework proposed by the Working Group, and encouraged further refinement of the process.

## Other Business

Research Priorities. Brandon Muffley (Council Staff) presented a brief overview of a detailed update of Council Research Priorities for 2020-2024. To maintain focus on the longer-term objectives, progress on the plan is summarized annually. A total of 14 total projects were supported during 2019-2020 covering six species and all FMPs. Research priority themes include: stock assessments, discards, social and economic data, allocation, recreational data, ecosystem tools and EAFM, and climate change impacts. One of the long-term goals identified
in the 2020-2024 Research Priorities document was to conduct a more holistic review with greater consideration of research priorities from across the region. No specific decisions were requested of the SSC for 2021 but it was noted that the plan should be consulted when the SSC is developing research recommendations as part of the ABC recommendation process for each stock throughout the year. A copy of the Staff Memo may be found at: https://static1.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/60391e252efe9e671fd5f5be/ 1614356005840/b_SSC+Memo_Research+Priorities+Update 03 2021.pdf

Species Leads. The SSC assigns members to serve as species leads for each managed stock and for special programs such as ecosystem-based fishery management. Species leads are responsible for maintaining an in-depth knowledge of the stock's fishery and assessment, as well as leading discussions when the SSC sets ABCs for the species. Each stock also has a lead social scientist to address cultural and economic issues associated with the species. And updated list of species and topic responsibilities of SSC members may be found at: https://static1.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/604f83297fe0905ce9a4db04 /1615823658515/2021+SSC+Species_Topic+Leads+Table.pdf

National Scientific Coordination Subcommittee (SCS): About every two years the Council Coordination Committee (CCC) organizes a theme-oriented meeting of all the Council's SSCs. The purpose of the meetings is to allow for the exchange of ideas and approaches across council as well as to address themes of national significance. The North Pacific Council was originally scheduled to host the seventh National meeting of the SCS in Sitka, Alaska, in August, 2020. The meeting was postponed until 2021 and will be held virtually. The themes will be application of ecosystem indicators into stock assessments, consideration of interacting species, and the assessment of species exhibiting distributional changes. Sarah Gaichas will be one of the keynote speakers. Additional planning for the meeting is now underway.


MID-ATLANTIC
FISHERY MANAGEMENT COUNCIL

# Mid-Atlantic Fishery Management Council Scientific and Statistical Committee Meeting 

March 9-10, 2021 via Webinar
Webinar Information
(Note: same information for both days)
Link: http://mafmc.adobeconnect.com/march2021ssc/
Call-in Number: 1-800-832-0736
Access Code: 5939710\#

## **REVISED**

## AGENDA

**The Recreational Reform update originally scheduled for Wednesday, March $9^{\text {th }}$ has been removed from the agenda. The Economic Work Group case study was moved from Tuesday, March $8^{\text {th }}$ to Wednesday, March $9^{\text {th }}$. Other agenda start/stop times were also adjusted.

## Tuesday, March 9, 2021

10:00 Welcome/Overview of meeting agenda (P. Rago)
10:05 Index Based Methods and Harvest Control Rules Research Track Assessment Results (C. Legault)

- Possible implications and application for addressing missing 2020 data

12:00 Lunch
1:00 Blueline Tilefish data and fishery update; 2022-2024 ABC recommendations (M. Seeley)

- Review of staff memo and 2022-2024 ABC recommendations
- 2022-2024 SSC ABC recommendations (S. Gaichas)

3:00 Golden Tilefish science and management

- Fishery independent longline survey - 2020 results, future approaches, and potential utility for assessments (J. Olin, P. Nitschke)
- Overview of Golden Tilefish management strategy evaluation (J. Wiedenmann)
- Upcoming management actions (J. Montañez)

5:00
Adjourn

## Wednesday, March 10, 2021

8:30 NEFSC 2021 Mid-Atlantic State of the Ecosystem Report (S. Gaichas)

- Update of Council's EAFM Risk Assessment

10:00 Update on Economic Work Group case study: Redevelopment of the Research Set-Aside Program (G. DePiper, J. Holzer)

11:00 Miscellaneous SSC topic updates

- Species/topic lead assignments
- Research priorities
- National SSC meeting

11:30 Other Business
12:00 Adjourn

Note: agenda topic times are approximate and subject to change

# MAFMC Scientific and Statistical Committee <br> March 10 - 11, 2021 

Meeting Attendance via Webinar
Name
SSC Members in Attendance:

Paul Rago (SSC Chairman)
Tom Miller
Ed Houde
Dave Secor
John Boreman
Geret DePiper
Lee Anderson
Jorge Holzer
Yan Jiao
Rob Latour
Brian Rothschild
Olaf Jensen
Sarah Gaichas
Wendy Gabriel
Mike Wilberg (Vice-Chairman)
Alexei Sharov
Mike Frisk
Mark Holliday
Cynthia Jones
Gavin Fay

Affiliation

NOAA Fisheries (retired)
University of Maryland - CBL
University of Maryland - CBL (emeritus)
University of Maryland - CBL
NOAA Fisheries (retired)
NOAA Fisheries NEFSC
University of Delaware (emeritus)
University of Maryland
Virginia Tech University
Virginia Institute of Marine Science
Univ. of Massachusetts - Dartmouth (emeritus)
Rutgers University
NOAA Fisheries NEFSC
NOAA Fisheries NEFSC
University of Maryland - CBL
Maryland Dept. of Natural Resources
Stony Brook University
NOAA Fisheries (retired)
Old Dominion University
U. Massachusetts-Dartmouth

Others in attendance (only includes presenters and members of public who spoke):

Chris Legault (March $10^{\text {th }}$ only)<br>John Wiedenmann (March $10^{\text {th }}$ only)<br>Jill Olin (March $10^{\text {th }}$ only)<br>Paul Nitschke<br>Brandon Muffley<br>José Montañez<br>Matt Seeley<br>James Fletcher<br>Laurie Nolan (March $10^{\text {th }}$ only)<br>Jeff Kaelin

NEFSC
Rutgers University
Michigan Technological University
NEFSC
MAFMC staff
MAFMC staff
MAFMC staff
United National Fisherman's Assoc.
F/V Sea Capture
Lunds Fisheries

# Research Steering Committee Meeting <br> Re-Development of the Mid-Atlantic Research Set-Aside Program 

Webinar Meeting Summary

March 2021

The Research Steering Committee (RSC) met via webinar on Thursday, March 18, 2021 to discuss redevelopment of the Research Set-Aside (RSA) program. In doing so, the RSC discussed the outcomes of the April 2020 RSC meeting, the Scientific and Statistical Committee (SSC) Economic Working Group involvement, and a variety of workshop approaches/logistics. The Committee's recommendations from this meeting will be presented via the Committee reports at the April 2021 Council meeting.

RSC members present: Adam Nowalsky (Chair), Michelle Duval(Vice-Chair), Chris Batsavage, Bob Beal, Peter deFur, Tony DiLernia, Paul Risi, Kate Wilke, Ryan Silva, and Matthew Seeley (MAFMC Staff).

Others present: Jorge Holzer (MAFMC SSC), Paul Rago (MAFMC SSC), Geret DePiper (MAFMC SSC), John Boreman (MAFMC SSC), Mark Holliday (MAFMC SSC), Cheryl Corbett (NMFS), Scott Curatolo-Wagemann (Cornell), Tara McClintock (Cornell), James Fletcher (UNFA), Katie Almeida (Town Dock), Brandon Muffley (MAFMC Staff), Stephen Pearson (MAFMC Staff), Mary Sabo (MAFMC Staff), and Jason Didden (MAFMC Staff).

## Summary

The RSC meeting began with a presentation from staff summarizing the goals of the webinar and workshop (proposed) and the RSC progress to date. Discussion initially focused on the RSC's involvement with the SSC Economic Work Group (WG), the options to redevelop an RSA program, and workshop logistics to be discussed on the webinar. As a result of this discussion, the RSC recommended option 2 for a workshop structure. This option consists of three workshop webinars during the summer and early fall focusing on research, funding, and enforcement, followed by an in-person 1-day workshop in the fall to report all findings and recommendations to the participants. The RSC confirmed that the results of the entire workshop will be presented to the Council in December with a recommendation on whether/how to re-develop the RSA program.

## Workshop Structure and SSC Economic WG Involvement

The RSC recommends an RSA Workshop that would consist of 3 webinars and 1 in-person meeting in 2021. Goals for each workshop webinar are presented below but will be further refined
at the next RSC meeting tentatively set for late spring 2021. This workshop structure offers a more accelerated approach compared to the non-preferred option of holding a 3-day in-person workshop in the fall. SSC Economic WG members expressed concerns over not having sufficient time to provide detailed options and analysis on each WG topic (i.e., research, funding, and enforcement). To adjust for the preferred workshop structure, SSC Economic WG leads indicated they will provide draft concepts and potential options that encompass the overall scope of each meeting topic. These products, which will be based on the suggested best economic practices, will be used to facilitate and supplement workshop discussions. The RSC and invited participants will offer feedback and direction on the SSC Economic WG products for additional development and refinement prior to the final in-person workshop.

## RSC-Recommended Workshop Structure

- Meeting 1 (Workshop Webinar): Draft Goal - Identify how research goals will be prioritized, projects will be screened, and results will inform management/be communicated to the Council and stakeholders.
- Review draft SSC Economic WG products on Research
- Primary and Other Invited Participants (see list below)
- Meeting 2 (Workshop Webinar): Draft Goal - Recap meeting 1, confirm how the program will be administered (federal grant program), discuss funding mechanism, detail the range of topics/options for discussion at the workshop, and indicate that projects should be tied to management/assessment needs.
- Review draft SSC Economic WG products on Funding
- Primary and Other Invited Participants (see list below)
- Meeting 3 (Workshop Webinar): Draft Goal - Recap meeting 1 and 2, identify how the Council will collaborate with the Atlantic States Marine Fisheries Commission and other agencies, and identify/discuss revisions that will avoid future enforcement issues.
- Review draft SSC Economic WG products on Enforcement
- Primary and Other Invited Participants (see list below)
- Meeting 4 (1-day In-Person Workshop): Goal-Recap meetings 1-3, review final SSC Economic WG products, and develop a detailed recommendation (with timelines) for the Council identifying whether and how RSA should be re-developed.
- Primary and Other Invited Participants


## Primary Participants:

- Committee Members, Mid-Atlantic Council Staff, New England Council Staff, Atlantic States Marine Fisheries Commission (ASMFC) Staff, ASMFC Law Enforcement Committee, NOAA Office of Law Enforcement (OLE), Northeast Fisheries Science Center, Greater Atlantic Regional Fisheries Office (GARFO), Scientific and Statistical Committee (e.g., Working Groups and Chair)


## Other Invited Participants:

- National Fisheries Institute, State representatives (e.g., MAFMC and ASMFC Administrative Commissioners), MAFMC Advisory Panels, previously successful RSA participants, Science Center for Marine Fisheries, Other individuals.


## Areas of Focus

The RSC and Economic WG will work collaboratively to produce meeting reports and briefing materials for a synthesis workshop (Meeting 4) in the late Fall.

## Anticipated Economic Working Group Products

The main product will be a report with options and alternatives regarding economic considerations to be submitted to the stakeholders that will participate in the 2021 workshop for the redevelopment of the program. This report will focus on the three main components of the program: 1) selection of fishery and research projects, 2) allocation of RSA quota and revenue generation, and 3) enforcement and monitoring. Importantly, the report willhighlight the economic link across these three components, as driven by researchers' objectives and fishermen's incentives. The WGs will include case studies, scenarios, trigger questions, etc. to promote positive dialogue regarding all topics. Polished products will not be available at the webinar meetings, but ample materials will be available to guide the discussion and supplement the RSC's work.

The subgroups of the Economic WG will develop draft reports for each workshop webinar (meetings 1-3) focusing on research, funding, and enforcement. The WGs will focus efforts on the areas of the RSA program that led to its suspension. Ideally, these reports and possible considerations will span the overall meeting scope and supplement/guide the RSC's discussion.

## Anticipated Research Steering Committee (and Council) Recommendations

The RSC will develop a report highlighting the outcomes of the workshop with respect to each individual meeting. This report will include the recommendation to redevelop RSA (should that be the outcome of the workshop) with a focus on the revisions and improvements to the program, as previously implemented. The Council will review this report at the December 2021 meeting and consider action on the re-development of RSA.

A further detailed report from the RSC will be presented to the Council in early to mid-2022 detailing revisions that will lead to a successfully redesigned program. This report intends to highlight the following:

- Prioritization (i.e., research needs, proposals, access to RSA quota, etc.)
- Amount of quota to set-aside
- Provide recommendations on dealing with enforcement concerns
- Administrative details (and costs)
- Provide input into the review process so the center director can make strong selections
- Integrate research results into the management process where appropriate
- Incorporate criteria that address the "problem areas" and lessons learned
- Recommendations to the Council/RSC that define the legal bounds of what can be conducted through this workshop, as it is important to ensure the results that come out of the workshop are fully practicable.
- Other ideas considered during the workshops


## Timeline

| Date | $\quad$ Event/Topic |
| :--- | :--- |
| March $18^{\text {th }}$ | RSC Planning Meeting (multi-day workshop or 3 virtual meetings and <br> 1-day workshop) Confirm whether the RSC will move forward with <br> Option 1 or 2. |
| April 6-8 th <br> Meeting | RSC will present detailed outcomes of 3/18 meeting and outline the <br> workshop structure. |
| May (late) | RSC Planning Meeting |
| June (late) | Meeting 1 (Workshop Webinar) - Research |
| August | Meeting 2 (Workshop Webinar) - Funding |
| August | Council Meeting: Economic WG progress report to Council |
| September | SSC Meeting: Economic WG progress report to SSC |
| September/October | Meeting 3 (Workshop Webinar) - Enforcement |
| October/November | Meeting 4 (1-day In-Person Workshop) |
| December | Council Meeting: RSC and Economic WG report to Council |

## Next Steps

The RSC will hold another meeting prior to the first workshop webinar (Meeting 1) to further define the structure for each meeting. Staff will develop briefing materials outlining specific goals and action items for each individual workshop webinar. These materials will incorporate the recommendations from the RSC and SSC Economic WG, as well as trigger questions to help guide discussion.

# MEMORANDUM 

Date: $\quad$ March 29, 2021
To: Council
From: Chris Moore
Subject: Executive Director's Report

The following materials are enclosed for Council review at the April 2021 Council Meeting during the Executive Director's Report:

1. 2021 Planned Council Topics
2. 2022 Council Meeting Schedule
3. Status of Council Actions Under Development
4. Status of Completed MAFMC Actions and Specifications
5. GARFO Letter to MAFMC Regarding Black Sea Bass Catch Accounting Revisions (2/24/21)
6. MAFMC Letter to Secretary of Interior Regarding the Northeast Canyons and Seamounts Marine National Monument (3/16/21)
7. CCC Letter to Secretary of Interior and Secretary of Commerce Regarding Section 216(a) of Executive Order (EO) 14008 on Tackling the Climate Crisis at Home and Abroad (3/12/21)
8. Press Release: Bluefish Allocation and Rebuilding Amendment Public Hearings (2/22/21)
9. Press Release: Mid-Atlantic Council Seeks Applicants for Advisory Panels (3/22/21)
10. Notice: NOAA Fisheries Action to Continue to Waive Observer Coverage ( $3 / 25 / 21$ )
11. Staff Memo: Revisions to the Northeast Trawl Advisory Panel Charter (3/24/21)
12. Offshore Wind Updates as of $3 / 29 / 21$

## 2021 Planned Council Meeting Topics

Updated 3/26/21

## April 6-8, 2021 Council Meeting

- Summer Flounder, Scup, and BlackSea Bass Commercial/Recreational Allocation Amendment: Final action (Joint with SFSBSB Board)
- Climate Change Scenario Planning: Update
- Golden Tilefish Multi-Year Specifications Framework: Framework Meeting 1
- 2022-2024 Blueline Tilefish Specifications: Approve
- 2021 Mid-Atlantic State of the Ecosystem Report
- 2021 EAFM RiskAssessment
- EAFM Summer Flounder Management Strategy Evaluation: Update
- RSA Redevelopment Workshop: Update

June 8-10, 2021 Council Meeting (Virginia Beach, VA)

- Advisory Panel Appointment Recommendations (Executive Committee Closed Session)
- Unmanaged Commercial Landings Report: Review
- Bluefish Allocation and Rebuilding Amendment: Final Action (Joint with Bluefish Board)
- 2022 Longfin Squid and Butterfish Specifications: Review
- 2022 Illex Squid Specifications: Approve
- Illex Incidental Trip Limit and Butterfish Mesh Regulation Modification: Review and Recommend Changes if Appropriate
- Surfclam and Ocean Quahog 2022 Specifications: Review
- Habitat Activities Update (including wind and aquaculture)


## August 9-12, 2021 Council Meeting (Philadelphia, PA)

- Summer Flounder, Scup, and BlackSea Bass 2022-2023 Specifications and Commercial Measures: Approve (Joint with SFSBSB Board)
-_CommercialScup-Discards andGear Restricted Areas: Review
- Bluefish 2022-2023 Specifications: Approve (Joint with Bluefish Board)
- Recreational Reform Initiative (Joint with Policy Board)
- EAFM Summer Flounder Management Strategy Evaluation: Update and Feedback (Joint with SFSBSB Board)
- SSC Economic Work Group: Update on RSA Redevelopment Case Study
- Golden Tilefish Multi-Year Specifications Framework: Final Action
- Golden Tilefish Specifications: Review 2022 and Approve 2023-2024
- 2022 Atlantic Mackerel Specifications (including RH/S cap): Review (note that 2021 management track assessment may necessitate re-setting for 2022-2023)
- Surfclam and Ocean Quahog Species Separation Requirements: Review White Paper and Identify Next Steps

October 5-7, 2021 Council Meeting (New York, NY)

- 2022 Implementation Plan: Discuss Draft Deliverables (Executive Committee)
- Joint Council-SSC Meeting
- HMS Diet Study Final Report: Review
- Chub Mackerel 2022 Specifications: Review
- Action to Implement a Possession Limit for Bullet and Frigate Mackerel: Update
- 2022 Spiny Dogfish Specifications: Review
- Spiny Dogfish Trip Limit Analyses: Review and Recommend Changes if Appropriate
- Ocean City, MD Video Project: Review Results
- Private Tilefish Permitting/Reporting Evaluation


## December 13-16, 2021 Council Meeting (Annapolis, MD)

- 2022 Implementation Plan: Approve
- Recreational Reform Initiative (Joint with Policy Board)
- Summer Flounder, Scup, and BlackSea Bass 2022 Recreational Management Measures:Approve (Joint with SFSBSB Board)
- Bluefish 2022 Recreational Management Measures: Approve (Joint with Bluefish Board)
- Biennial Review of 2020-2024 Research Priorities Document: Review and Approve
- EAFM Summer Flounder Management Strategy Evaluation: Update and Feedback (Joint with SFSBSB Board)
- RSA Workshop Report: Review
- Habitat Activities Update (including wind and aquaculture)


## 2021 Council Meeting Topics At-a-Glance

|  | April 6-8 | June 8-10 | August 8-12 | October 5-7 | December 13-16 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Mackerel, Squid, Butterfish and River Herring and Shad (RH/S) |  | - 2022 Illex Specs <br> - 2022 Longfin and Butterfish Specs Review <br> - Illex Incidental Trip Limit and Butterfish Mesh Regulations | - 2022 Mackerel Specs Review (including RH/S cap) | - Chub mackerel 2022 Specs Review |  |
| Summer <br> Flounder, Scup, <br> Black Sea Bass <br> (SF/S/BSB) | - $\mathrm{SF} / \mathrm{S} / \mathrm{BSB}$ Com/Rec Allocation Amd: Final Action |  | - SF/S/BSB 2022-2023 Specs <br> - Rec Reform Initiative |  | - Rec Reform Initiative <br> - SF/S/BSB 2022 Rec Mgmt Measures |
| Bluefish |  | - Bluefish Amd: Final Action | - Bluefish 2022-2023 Specs |  | - Bluefish 2022 Rec Mgmt Measures |
| Tilefish | - Golden Tilefish Multi-Year Specs FW <br> - 2022-2024 Blueline Tilefish Specs |  | - Golden Tilefish Multi-Year Specs FW: Final Action <br> - Golden Tilefish Specs: Review 2022 and Approve 20232024 | - Private Tilefish Permitting/ Reporting Evaluation |  |
| Atlantic <br> Surfclam and Ocean Quahog (SC/OQ) |  | - SC/OQ 2022 Specs Review | - SC/OQ Species Separation: Review White Paper and Identify Next Steps |  |  |
| Spiny Dogfish |  |  |  | - 2022 Dogfish Specs <br> Review <br> - Dogfish Trip Limit Analysis |  |
| Science Issues | - RSA Workshop: Update |  | - SSC Economic Work Group: Update on RSA Case Study | - Joint Council-SSC Meeting <br> - HMS Diet Study Report <br> - Ocean City Video Project: Review Results | - Biennial Review of 2020-2024 Research Priorities <br> - RSA Workshop Report: Review |
| EAFM | - 2021 Mid-Atlantic State of the Ecosystem Report <br> - 2021 EAFM Risk Assessment <br> - EAFM Summer Flounder MSE Update |  | - EAFM Summer Flounder MSE Update |  | - EAFM Summer Flounder MSE Update |
| Other | - Climate Change Scenario Planning Update | - Advisory Panel Appointments <br> - Unmanaged Commercial Landings Report - Habitat Update |  | - Discuss 2022 Draft Deliverables <br> - Bullet and Frigate Mackerel Action Update | - 2022 <br> Implementation Plan: Approve <br> - Habitat Update |

Acronyms/Abbreviations

| Amd | Amendment | MSE | Management Strategy Evaluation |
| :--- | :--- | :--- | :--- |
| Com/Rec | Commercial/Recreational | Mtg | Meeting |
| Com | Commercial | Rec | Recreational |
| EAFM | Ecosystem Approach to Fisheries Management | RH/S | River Herring and Shad |
| FMP | Fishery Management Plan | SC/OQ | Atlantic Surfclam and Ocean Quahog |
| GRAs | Gear Restricted Areas | SF/S/BSB | Summer Flounder, Scup, Black Sea Bass |
| HMS | Highly Migratory Species | Specs | Specifications |
| Mgmt | Management | SSC | Scientific and Statistical Committee |
| MSB | Mackerel, Squid, Butterfish |  |  |

## Actions Referenced in this Document

- Bluefish Amd: Bluefish Allocation and Rebuilding Amendment
- SF-S-BSB Com/RecAllocation Amd: Summer Flounder, Scup, BlackSea Bass Commercial/Recreational Allocation Amendment
- Rec Reform Initiative: Recreational Management Reform Initiative
- Golden Tilefish Multi-Year Specs FW: Golden Tilefish Multi-Year Specifications Framework
- SC/OQ Species Separation: Action to address current species separation requirements in the Atlantic surfclam and ocean quahog fisheries
- Bullet and Frigate Mackerel Action Update: Action to implement a possession limit for bullet and frigate mackerel


## MAFMC 2022 Council Meetings

| February 8-10, 2022 | Meeting: <br> Durham Convention Cntr, 301 W. Morgan St, Durham, NC 27701 <br> Sleeping Rooms: <br> Marriott Durham Hotel, 201 Foster St, Durham, NC 27701 |
| :--- | :--- |
| April 5-7, 2022 | Seaview Dolce Hotel <br> 401 S. New York Road <br> Galloway, NJ 08205 |
| June 7-9, 2022 | Hyatt Place, Long Island East End <br> 451 East Main Street <br> Riverhead, NY 11901 |
| August 8-11, 2022 | The Notary Hotel <br> 21 Juniper Street <br> Philadelphia, PA 19107 |
| October 4-6, 2022 | Hyatt Place, Dewey Beach <br> 1301 Coastal Highway <br> Dewey Beach, DE 19971 |
| December 12-15, 2022 | The Westin <br> 100 Westgate Circle <br> Annapolis, MD 21401 |

## Status of Council Actions Under Development

AS OF 3/26/21

| FMP | Action | Description | Status | Staff Lead |
| :--- | :--- | :--- | :--- | :--- |
| Summer <br> Flounder, <br> Scup, Black <br> Sea Bass | Commercial/ <br> Recreational <br> Allocation <br> Amendment | This joint MAFMC/ASMFC amendment will reevaluate and potentially <br> revise the commercial and recreationalsector allocations for summer <br> flounder, scup, and black sea bass. This action was initiated in part to <br> address the allocation-related impacts of the revised recreational data <br> from MRIP. <br> http://www.mafmc.org/actions/sfsbsb-allocation-amendment | The Council and Board will consider <br> public comments and take final <br> action at the April 2021 Council <br> Meeting. | Dancy/Coutre/ <br> Beaty |
| Bluefish | Bluefish Allocation <br> and Rebuilding <br> Amendment | This joint MAFMC/ASMFC amendment considers potential revisions to <br> the allocation of Atlantic bluefish between the commercial and <br> recreational fisheries and the commercial allocations tothe states. This <br> action will also review the goals and objectives of the bluefish FMP and <br> the quota transfer processes and establisha rebuilding plan for <br> bluefish. <br> http://www.mafmc.org/actions/bluefish-allocation-amendment | Public hearings will be held March 24 <br> -April 83, 23 2021. | Seeley |
| Summer <br> Flounder, <br> Scup, Black <br> Sea Bass <br> and <br> Bluefish | Recreational <br> Reform <br> Framework and <br> Technical <br> Guidance <br> Documents | The Council and Policy Board initiateda framework/addendum to <br> address the following topics for summer flounder, scup, black sea bass, <br> and bluefish: (1) better incorporating MRIP uncertainty into the <br> management process; (2) guidelines for maintaining status quo <br> recreational management measures (i.e., bag, size, and seasonlimits) <br> from one year to the next; (3) a process for setting multi-year <br> recreational management measures; (4) changes tothe timing of the <br> recommendation for federal waters recreationalmanagement <br> measures; and (5) a proposal put forward by six recreational <br> organizations calleda harvest control rule. The Council and Policy <br> Boardmay consider addressing some of these topics through a <br> technical guidance document, rather than a framework/addendum. <br> https://www.mafmc.org/actions/recreational-reform-initiative | The Council and Policy Board <br> discussed next steps during their <br> joint meeting on February 1. | Beaty |


| FMP | Action | Description | Status | Staff Lead |
| :--- | :--- | :--- | :--- | :--- |
|  | Recreational <br> Sector Separation <br> and Catch <br> Accounting <br> Amendment | This joint MAFMC/ASMFC amendment considers (1) options for <br> managing for-hire recreational fisheries separately from other <br> recreational fishing modes and (2) options related to recreational <br> catch accounting, such as private angler reporting and enhanced vessel <br> trip report requirements for for-hire vessels. <br> https://www.mafmc.org/actions/recreational-reform-initiative | The Council and Policy Board <br> initiated this action at the joint <br> October 2020 meeting. Minimal <br> progress is expected in 2021 due to <br> other priorities. | Beaty |
| Surfclam <br> and Ocean <br> Quahog | Addressing <br> Current Surfclam <br> and Ocean <br> Quahog Species <br> Separation <br> Requirements | As surfclams have shifted toward deeper water in recent years, catches <br> including both surfclams and ocean quahogs have become more <br> common. Current regulations do not allow surfclams and ocean <br> quahogs to be landed on the same trip. The Council is exploring <br> options to address this issue. | An FMAT has been established, and <br> their first meeting was held <br> $11 / 17 / 2020$. | Coakley/ <br> Montañez |
| Tilefish | Golden Tilefish <br> Multi-Year Specs <br> Framework | This frameworkaction will consider allowing specifications to be set for <br> more than 3 years (e.g. 5 years) when assessment data support the <br> development of longer-term projections. This action is intended to <br> increase administrative efficiency and predictability from year to year. | Framework Meeting \#1 will take <br> place at the April 2021 Council <br> Meeting. | Montañez |
| Omnibus | Omnibus <br> Amendment for <br> Data <br> Modernization | This amendment will address the regulatory changes needed to fully <br> implement the Agency's Fishery-Dependent Data Initiative. | The Council last received an update <br> at the October 2018 meeting. | GARFO/NEFSC |

## Timeline and Status of Recent MAFMC Actions and Amendments/Frameworks Under Review

## As of $3 / 24 / 2021$

The table below summarizes the status of actions after they have been approved by the Council. For information about the status of Council actions under development, please see the document titled "Status of Council Actions Under Development."

| Amendment/Framewor k | Action Number | Council <br> Approval | Initial <br> Submission | Final Submission | NOA <br> Published | Proposed <br> Rule <br> Published | Approval/ Disapproval Letter | Final Rule Published | Regs <br> Effective | Notes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Summer Flounder Commercial Issues and Goals and Objectives Amendment | SFSBSB Amd 21 | 3/6/19 | 3/17/20 | 5/7/20 | 7/29/20 | 8/12/20 | 10/19/20 | 12/14/20 | 1/1/21 |  |
| Excessive Shares Amendment | SCOQ Amd 20 | 12/9/19 | 4/24/20 | 9/25/20 |  |  |  |  |  |  |
| Omnibus Commercial eVTR Framework | MSB FW 14; Bluefish FW 4; SFSBSB FW 15; SCOQ FW 3; Tilefish FW 5; Dogfish FW 4 | MAFMC: 12/11/19; NEFMC: $1 / 29 / 20$ | 3/4/20 | 4/14/20 | 7/17/20 | 7/17/20 |  | 11/10/20 | 11/10/21 |  |
| MSB FMP <br> Goals/Objectives and Illex Permits Amendment | MSB Amd 22 | 7/16/20 | 3/15/21 |  |  |  |  |  |  |  |
| Black Sea Bass Commercial State Allocation Amendment | TBD | 2/1/21 |  |  |  |  |  |  |  |  |

Timeline and Status of Current and Upcoming Specifications for MAFMC Fisheries
As of 3/22/21

| Current Specifications | Year(s) | Council Approval | Initial <br> Submission | Final <br> Submission | Proposed <br> Rule | Final Rule | Regs Effective | Notes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Golden Tilefish | 2021-2022 | 4/8/20 | 5/11/20 | 7/21/20 | 11/13/20 | 12/21/20 | 12/21/20 |  |
| Blueline Tilefish | 2019-2021 | 4/11/18 | 8/17/18 | 10/24/18 | 11/19/18 | 2/12/19 | 2/12/19 |  |
| Surfclam and Ocean Quahog | 2021-2026 | 8/12/20 | 9/2/20 | 2/24/21 | 2/17/21 |  |  |  |
| Longfin Squid | 2021-2023 | 8/10/20 | 10/14/20 |  |  |  |  | Working on EA edits received in March, status quo from previous year. |
| Butterfish | 2021-2022 | 8/10/20 | 10/14/20 |  |  |  |  | Working on EA edits received in March, reduction from previous year but timeline not expected to be an issue. |
| Illex Squid | 2020-2021 | 6/17/20 | 10/14/20 |  |  |  |  | Working on EA edits received in March, status quo from previous year. |
| Atlantic Mackerel (including RH/S cap) | 2021-2022 | 8/10/20 | 10/14/20 |  |  |  |  | Working on EA edits received in March, status quo from previous year. |
| Chub mackerel | 2020-2022 | 3/7/19 | 5/31/19 | 10/25/19 | 3/9/20 | 8/4/20 | 9/3/20 | Reviewed October 2020. No changes recommended. |
| Bluefish | 2021 (revised) | 8/11/20 | 9/24/20 | 10/26/20 | 11/5/20 | 12/16/20 | 12/16/20 |  |
| Summer Flounder, Scup, Black Sea Bass | 2021 (revised) | 8/11/20 | 9/30/20 | 11/20/20 | 11/17/20 | 12/21/20 | 1/1/21 |  |
| Spiny Dogfish | 2021-2022 | 10/6/20 | 12/7/20 | 2/3/21 | 3/4/21 |  |  |  |

## Recreational Management Measures

| Current Management Measures | Year(s) | Council Approval | Initial <br> Submission | Final <br> Submission | Propose <br> Rule | Final Ru | Regs <br> Effective | Notes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Summer flounder recreational measures | 2021 | 12/15/20 | 1/20/21 |  |  |  |  | Rulemaking required each year to continue use of conservation equivalency |
| Black sea bass recreational measures | 2021 | 2/14/18 | 3/5/18 | 4/10/18 | 4/11/18 | 5/31/18 | 5/31/18 | Reviewed in 2020. No changes from prevous year's measures. |
| Scup recreational measures | 2021 | 12/10/14 | 3/20/15 |  | 5/5/15 | 6/19/15 | 6/19/15 | Reviewed in 2020. No changes from prevous year's measures. |
| Bluefish recreational measures | 2021 | 12/10/19 | 1/23/20 | 3/19/20 | 5/25/20 | 6/29/20 | 6/29/20 | Reviewed in 2020. No changes from prevous year's measures. |

Dr. Christopher Moore
Executive Director
Mid-Atlantic Fishery Management Council
800 North State Street, Suite 201
Dover, DE 1990

## Dear Chris,

After discussing the 2019 black sea bass catch accounting at the February Council meeting, we reviewed the recreational discard values detailed in my previous letter. In doing so, we discovered an error. We inadvertently listed the Fishing Effort Survey (FES) Marine Recreational Information Program estimate of recreational discards as the Coastal Household Telephone Survey (CHTS) estimate for black sea bass. The tables below show the corrected information, as well as the recreational estimates in both units.

As you can see, this brings the total catch below the overfishing limit and reduces the concern regarding excessive discards in the recreational fishery for black sea bass. Moving forward all specifications and catch accounting will only use the FES estimates.

Table 1: Corrected 2019 Black Sea Bass Specifications and Year-End Data (mt)

| 2019 Specifications |  | 2019 Catch Data |  | Difference |
| :--- | :---: | :--- | :---: | ---: |
| OFL | 4,667 | Total Catch | 4,127 | $-12 \%$ |
| ABC | 4,055 | Total Catch | 4,127 | $1.8 \%$ |
| Commercial ACL = ACT | 1,974 | Commercial Catch | 2,330 | $16 \%$ |
| Projected Commercial Discards | 377 | Commercial Dead Discards | 731 | $64 \%$ |
| Commercial Quota | 1,596 | Commercial Landings | 1,599 | $0.2 \%$ |
| Recreational ACL = ACT | 2,083 | Recreational Catch* | 1,797 | $-15 \%$ |
| Projected Recreational Discards | 422 | Recreational Dead Discards* | 225 | $-61 \%$ |
| Recreational Harvest Limit | 1,661 | Recreational Landings* | 1,572 | $-6 \%$ |

*CHTS-equivalent

Table 2: Comparison of FES and CHTS Recreational Catch Estimates (mt)

|  | 2019 FES <br> Landings | 2019 FES <br> Discards | 2019 CHTS <br> Landings | 2019 CHTS <br> Discards |
| :--- | :---: | :---: | :---: | :---: |
| Black Sea Bass | 3,905 | 1,468 | 1,572 | 225 |

We apologize for the confusion and the error. If you have any questions, please contact Emily Keiley at (978) 281-9116.

Sincerely,
Kinberly B. Damon-Randall
ForMichael Pentony
Regional Administrator
cc: Dr. Jon Hare, Science and Research Director, Northeast Fisheries Science Center


March 16, 2021

The Honorable Debra Haaland
Secretary of the Interior
Department of the Interior
1849 C. Street, N.W.
Washington, DC 20230
Dear Secretary Haaland:
Please accept these comments on behalf of the Mid-Atlantic Fishery Management Council (Mid-Atlantic Council) regarding your review of the commercial fishing prohibition in the Northeast Canyons and Seamounts Marine National Monument (Northeast Marine Monument). The Mid-Atlantic Council manages fifteen species of fish and shellfish under seven fishery management plans (FMPs), plus more than 50 forage species that are managed as ecosystem component species across all of our FMPs. Although our management area extends from New York through Virginia, a considerable portion of the catch from some of our managed fisheries comes from New England waters.

Section 3 of President Biden's "Executive Order on Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis" requires you to recommend whether a commercial fishing prohibition within the Northeast Marine Monument should be restored. The Mid-Atlantic Council recommends that management of fisheries in marine monument areas should remain under the jurisdiction of the Regional Fishery Management Councils (RFMCs) and NOAA's National Marine Fisheries Service (NMFS). Any fishing restrictions within the Northeast Marine Monument should be developed through the science-based, participatory management process required by the Magnuson-Stevens Fishery Conservation and Management Act (MSA). The Mid-Atlantic Council joins the seven other RFMCs in unanimous opposition to the use of the Antiquities Act of 1906 to implement fishing restrictions in the U.S. Exclusive Economic Zone (EEZ). ${ }^{1}$

Working in partnership with NMFS, the RFMCs have more than four decades of experience successfully managing our nation's fisheries and marine ecosystems. Through implementation of the MSA, the United States is the global leader in the successful conservation and management of fishery resources and associated ecosystems. The RFMCs are charged not only with preventing overfishing and rebuilding overfished stocks but also with achieving optimum yield - the amount of fish which will provide the greatest overall benefit to the Nation. The RFMCs are also required to protect essential fish habitat, minimize bycatch, and comply with protections for species listed under the Endangered Species Act and other Federal laws.

[^54]Through our work as stewards of U.S. fishery resources, the RFMCs have become leaders in marine conservation. Each RFMC has developed, or is developing, some form of a fishery ecosystem plan or a fishery-based management plan. In the Mid-Atlantic, we use what is called an "Ecosystem Approach to Fisheries Management." Within the Mid-Atlantic Council's 71,000 square mile management area, about $58 \%$, or 41,428 square miles, is covered by the Frank R. Lautenberg Deep Sea Coral Protection Area. In this area, all bottom-tending fishing gear is prohibited to protect sensitive deep sea habitats. The management measures and specific boundaries for the protection area were approved by the Council in 2015 following an extensive, science-based process in collaboration with the fishing industry. Similarly, the New England Fishery Management Council has approved restrictions on bottom-tending gear within $87 \%$ of the monument area through its Deep Sea Coral Amendment. In each region you will find examples of how the RFCs have carefully crafted spatial management measures and fishing restrictions to protect sensitive habitats and achieve other conservation goals.

The RFMCs are required to make all fisheries management decisions through a transparent, public process. The open forum provided by the Council system allows everyone to have a say in the stewardship of our marine resources and how fisheries are managed. We are concerned that the top-down approach used to designate and implement fishing restrictions within the Northeast Marine Monument did not provide adequate opportunities for public input. While a number of public events and meetings were held, fishermen and other affected stakeholders were not given a formal opportunity to comment on the proposed boundaries or management measures.

Implementation of fishing restrictions under the authority of the Antiquities Act of 1906 subverts the effective and time-tested fisheries management process established by the MSA. The RFCs have the knowledge, experience, and technical expertise needed to meet conservation objectives while ensuring productive and sustainable fisheries. We recommend that fisheries management responsibility for the Northeast Marine Monument area should be retained by the New England Fishery Management Council.

Thank you for the opportunity to provide comments on this issue. We look forward to working with this Administration to ensure the continued sustainability and conservation of our nation's marine resources.

Sincerely,


Dr. Christopher M. Moore
Executive Director, Mid-Atlantic Fishery Management Council
$\begin{aligned} & \text { CC: } \text { The Honorable Gina Raimondo, Acting Secretary of Commerce } \\ & \text { Mr. Paul Doremus, Acting Assistant Administrator for Fisheries NOAA/NMFS } \\ & \text { Mid-Atlantic Fishery Management Council Members } \\ & \text { Mr. Tom Dies, New England Fishery Management Council, Executive Director }\end{aligned}$ Miguel Rolon Executive Director Marcos Hanke Chair olfor MEx/c


Dr. Carrie Simmons Executive Director Dr. Thomas Frazer

Chair

MID-ATLANTIC| (iays Mid Atlantic Dr. Christopher Moore Executive Director Mike Luisi Chair New England Fishery Ma
Council
New England Thomas Nies Executive Director Dr. John Quinn Chair


North Pacific David Witherell Executive Director Simon Kinneen Chair


Pacific Chuck Tracy Executive Director Marc Gorelnik Chair (atary $M_{10}$ (1)

South Atlantic John Carmichael Executive Director Melvin Bell Chair


Western Pacific Kitty Simonds Executive Director Taotasi Archie Soliai Chair

March 12, 2021
The Honorable Deborah Haaland
Presumptive Secretary of the Interior
Department of the Interior
1849 C Street NW
Washington, DC 20240

The Honorable Gina Raimondo
Secretary of Commerce
Department of Commerce
1401 Constitution Ave NW
Washington, DC 20230

Dear Ms. Haaland and Ms. Raimondo:
The Council Coordination Committee (CCC) appreciates the opportunity to provide our perspective on Section 216(a) of Executive Order (EO) 14008 on Tackling the Climate Crisis at Home and Abroad. The CCC consists of the senior leaders of all eight Regional Fishery Management Councils (RFMCs; Councils), and, as such, represents the RFMCs.

The Magnuson-Stevens Fishery Conservation and Management Act (MSA) is the foundation that guides the use of U.S. marine and anadromous fishery resources. The MSA gives the U.S. the strongest statutory framework in the world for the management of sustainable fisheries and associated ecosystems and the U.S. is recognized as a world leader in marine conservation and sustainable fishery management. The MSA charges the nation's eight RFMCs with the responsibility of achieving its goals and objectives, which are closely aligned with those of the Executive Order.

Section 216(a) of the EO directs you to submit a report to the National Climate Task Force by April 20 recommending steps to work with State, Tribal, and Territorial governments, fishermen, and other key stakeholders to achieve the goal of conserving at least 30 percent of our lands and waters by 2030. We believe the RFMCs have already made significant progress in achieving this goal and can be a valuable resource for advancing this and other goals of the EO for the following reasons:

- The RFMCs have been managing and conserving marine resources, including fish stocks and benthic habitats, as directed by the MSA, for over 40 years. As a result, the U.S. is widely recognized as a leader in sustainable fishing practices.
- RFMCs use a public, collaborative process to engage State and Federal agencies, Tribal representatives, fishermen, and other key stakeholders in the conservation and management of living marine resources using the best scientific information available.
- RFMCs are at the forefront of coping with climate change, adapting management to conserve resources while continuing to provide significant economic benefits and domestic food security to the nation.
- Ecosystem considerations are routinely used to inform management decisions, acknowledging the complex interactions between habitat, fishery resources, and human communities.

Section 216(a)(ii) requires the report to the Task Force to propose guidelines for determining whether lands and waters qualify for conservation, and to establish mechanisms to measure progress toward the 30 percent goal. As explicitly stated by the title of our authorizing legislation, the function of the RFMCs is to conserve fishery resources. Specifically, the MSA requires each Council:

- To have conservation and management measures to prevent overfishing, rebuild overfished stocks, and to protect, restore, and promote the long-term health and stability of fisheries.
- To describe and identify Essential Fish Habitat (EFH), minimize fishing impacts to EFH, and identify actions to encourage conservation and enhancement of EFH.

To achieve these conservation and management objectives, the Councils use a wide range of management tools, including ecosystem-based fishery management, management strategy evaluation, and climate change scenario planning, in addition to more traditional spatial management approaches. For example:

- More than 1,000 individual spatial habitat and fisheries conservation measures have been implemented, protecting more than 72 percent of the nation's ocean waters from fishing impacts, which helps to ensure preservation of ecosystem functions.
- All Councils use annual catch limits to prevent overfishing and achieve optimum yield from managed fisheries to achieve the greatest overall benefit to the nation.
- Every Council has or is developing a fishery ecosystem plan(s) to monitor ecosystem functions, incorporate ecosystem science into fishery management decisions, and identify research priorities to advance ecosystem management.

These provisions and examples of implementation of the MSA are entirely consistent with the following dictionary definition of conservation: controlled use and systematic protection of natural resources (Webster). Council management meets this definition ${ }^{1}$ by managing for optimum yield and protecting habitats from fishing impacts. Therefore, the entire Exclusive Economic Zone (EEZ) under authority of the MSA should be classified as a conservation area for marine fishery resources, and at least 72 percent of that area should be classified as protected.

In summary, we submit that the MSA and its implementation through the RFMC process, as a measure of progress, already conserves and protects more that 30 percent of marine fishery resources and habitats. The MSA not only works well but is the gold standard worldwide for sustainable fishery conservation programs. Based on the success of the MSA, U.S. participation in Regional Fishing Management Organizations is helping other nations

[^55]recognize and make progress toward science-based conservation objectives consistent with the EO.

Further, should any additional needs for conservation of marine fishery resources be identified as part of the process of implementing this EO, they should be authorized only through the robust, open public process established by the MSA, which has been successfully used for over forty years to conserve and protect habitat, conserve fishery resources, and protect marine mammals and other listed species through sustainable, science-based management.

Thank you again for considering our comments; we hope they will be helpful in developing your report to the Task Force. Please feel free to contact Mr. Chuck Tracy, Pacific Fishery Management Council, Executive Director, and 2021 CCC coordinator, or any of the undersigned, for questions or clarifications. We welcome further engagement on this or other issues related to implementing the Executive Order.

Sincerely,


Marc Gorelnik, Chair Pacific Fishery Management Council


Taotasi Archie Soliai, Chair
Western Pacific Fishery Management Council


Dr. John Quinn, Chairman
New England Fishery Management Council


Simon Kinneen, Chair
North Pacific Fishery Management Council


Mike Luisi, Chair
Mid-Atlantic Fishery Management Council


Marcos Hanks, Chair Caribbean Fishery Management Council


Melvin Bell, Chair
South Atlantic Fishery Management Council


Dr. Thomas Frazer, Chair
Gulf of Mexico Fishery Management Council
cc: Mr. Thomas J. Vilsack, Secretary of Agriculture
Ms. Brenda Mallory, Presumptive Chair of the Council on Environmental Quality
Mr. Scott De la Vega, Acting Secretary of the Interior
Dr. Paul Doremus, Acting NOAA Assistant Administrator for Fisheries
Enclosure

Enclosure:
The following sections provide additional details regarding RFMC responsibilities and achievements relevant to Section 216(a) and other topics addressed in the Executive Order.

## RFMCs have been effectively conserving marine resources for over 40 years.

The MSA includes 10 National Standards to guide management of our nation's marine fishery resources that require the RFMCs, in addition to preventing overfishing and rebuilding overfished stocks, to minimize bycatch and provide for the sustained participation of fishing communities. The National Standard guidelines require Councils to manage for optimum yield, which is a precautionary approach to ensure harvest does not exceed maximum sustainable yield.

More specifically, the RFMCs develop and implement fishery management and ecosystem plans for marine waters of the U.S. EEZ that:

- Establish conservation objectives and associated management measures for managed fish stocks
- Identify and protect habitat for managed fish species, coral reef, and deep sea coral ecosystems
- Describe and monitor marine ecosystem functions, and apply them in management
- Support coastal economies and communities, including disadvantaged, minority cultures and communities
- Conserve, manage, and protect forage fish for the benefit of marine mammals, birds, and ecosystem functions
- Establish conservation objectives and associated management measures that minimize bycatch of non-target species, including fish, marine mammals, and marine species listed under the Endangered Species Act
- Support U.S. engagement in Regional (international) Fishery Management Organizations (RFMOs)
- Provide a sustainable supply of seafood and fishing opportunity for U.S. citizens and contribute to domestic food security.

Most stocks are managed on annual or biennial regulatory cycles supported by ongoing scientific surveys to support stock assessments. Councils are also required to periodically review and update their fishery management and ecosystem plans, habitat protection plans, stock assessment and fishery evaluation reports, and their research and data needs reports. Each Council has a Scientific and Statistical Committee to independently review scientific information and methodologies to ensure conservation and management measures are based on the best scientific information available.

Fishery management plans and implementing actions address not only the MSA requirements, but also other statutes and EOs ${ }^{2}$, and multi-lateral RFMOs ${ }^{3}$. All actions taken by the Councils are reviewed by, and if approved, implemented by the Department of Commerce to ensure compliance with other applicable law. These actions are also required under the MSA to have mandatory public review comment periods noticed in the Federal Register.

## Ecosystem considerations are routinely used to inform management decisions.

The Councils understand that conserving marine ecosystems is essential to achieving our mandate under the MSA. In working towards this goal, the Councils have become pioneers at implementing ecosystem-based management, tailored to the needs of the unique ecosystems that each Council manages. within the EEZ.

Ecosystem-based management also involves managing the human element of the ecosystem, not just the 'natural' elements. The Councils manage commercial and recreational fishermen, and even though we do not manage for subsistence users, we recognize their importance and that their usage has been an element of these ecosystems for millennia. This process also fulfills another objective of the EO: to spur economic growth by sustainable practices, as evidenced by nearly a million jobs and $\$ 56$ billion in value-added economic impact supported by the commercial, recreational, tribal and subsistence fisheries.

## RFMCs are at the forefront of coping with climate change.

Our incorporation of ecosystem-based management places the Councils at the forefront of society's response to climate change. Fishermen are well aware that warming ocean temperatures are changing the distribution of fish and affecting their productivity - they see it every day in their catches. The RFMCs are actively adapting to the rapidly changing conditions caused by global warming. This response is essential if the benefits of sustainable fisheries are to be realized by future generations. Because of our experience, we are uniquely positioned to evaluate what is needed to achieve the goals of the EO.

## RFMCs use a public, collaborative process in the conservation of living marine resources.

The RFMCs accomplish these functions through a process that is open to the public, inclusive of all stakeholders, fair, and with balanced representation. Council members include representatives from state fishery management agencies, National Marine Fisheries Service, U.S. Fish and Wildlife Service, treaty Indian Tribes, territories, U.S. Coast Guard, Department of State, and Department of Commerce-appointed stakeholders representing commercial and recreational fishing interests, environmental organizations, and academics. All Council meetings are noticed in the Federal Register, open to the public, and provide extensive opportunity for public comment.

[^56]
# MAFMC and ASMFC to Hold Public Hearings for Bluefish Allocation and Rebuilding Amendment 

The Mid-Atlantic Fishery Management Council (Council) and the Atlantic States Marine Fisheries Commission (Commission) are seeking public comment on management options under consideration in the Bluefish Allocation and Rebuilding Amendment. This amendment contains alternatives to:

- Revise the fishery management plan (FMP) goals and objectives;
- Modify the bluefish allocations between the commercial and recreational sectors;
- Modify the commercial allocations to the states;
- Initiate a rebuilding plan;
- Revise the quota transfer processes;
- Revise how the FMP accounts for management uncertainty; and
- Revise the de minimis provisions in the Commission's FMP.

Comments may be provided at any of 5 virtual public hearings to be held between March $\mathbf{2 4}$ and April 8, 2021 or via written comment until April 23, 2021.

We encourage you to visit the Council's Bluefish Allocation and Rebuilding Amendment web page or the Commission's Public Input web page, where you can read the Public Hearing Document, the Draft Amendment, and watch the public hearing presentation (to be posted by March 12, 2021). The Council's Public Hearing Document is an abbreviated version of the amendment which summarizes proposed management options and impacts. The Commission's Draft Amendment is a more comprehensive management document that will resemble the Commission's final amendment once approved. Both documents contain identical options for public input, but each have been developed according to each management body's differing requirements. Commenters need only to submit comment on one of the documents. We have also developed a Quick Reference Guide which provides an overview of the alternatives under consideration in the amendment.

## Virtual Hearing Schedule

Interested members of the public are encouraged to provide oral comments at any of the following public hearings. While we encourage you to attend the hearing that is targeted toward your state or regional grouping, anyone is welcome to participate in any hearing.

| Date | State or Regional Grouping | Contact(s) |
| :--- | :--- | :--- |
| Wednesday, March 24 <br> 6:00-8:00 p.m. | North Carolina, South Carolina, <br> Georgia, and Florida | Chris Batsavage (NC), 252-241-2995 |
|  |  | Mel Bell (SC), 843-953-9007 |
|  |  | Doug Haymans (GA), 912-264-7218 |
|  |  |  |


| Thursday, March 25 <br> 6:00-8:00 p.m. | Delaware, Maryland, Potomac River <br> Fisheries Commission, and Virginia | John Clark (DE), 302-739-9914 <br> Michael Luisi (MD), 443-758-6547 <br> Martin Gary (PRFC), 804-456-6935 |
| :--- | :--- | :--- |
| Tuesday, March 30 <br> 6:00-8:00 p.m. | Connecticut and New York | Ellen Bolen (VA), 757-247-2269 |
| Thursday, April 1 <br> 6:00-8:00 p.m. | Maine, New Hampshire, <br> Massachusetts, Rhode Island | Maureen Davidson (NY), 631-444-0483 |
| Thursday, April 8 <br> 6:00-8:00 p.m. | New Jersey | Cheri Patterson (NH), 603-868-0932 <br> Nichola Meserve (MA), 617-626-153 |

## Webinar Connection Instructions

To register for a public hearing please click here: Public Hearing Registration and select the hearing(s) you plan to attend from the dropdown menu. Hearings will be held via GoToWebinar, which can be accessed using a computer, tablet, or smartphone. When connecting to audio, we strongly encourage participants to use computer voice over internet (VoIP) so you can ask questions and provide input. To attend the webinar in listen only mode, dial 1-866-901-6455 and enter access code 140-544-592. Those joining by phone only will be limited to listening to the presentation and will not be able to provide input. For technical assistance setting up and logging into GoToWebinar, contact Dustin Colson Leaning at 703-842-0714.

If you are connected only by phone in listen only mode, you will not show up as a webinar attendee. In the event that there are no webinar attendees, the public hearing will be cancelled unless state staff request that the hearing content is presented.

## Written Comments

Written comments may be submitted through April 23, 2021 by any of the following methods:

1. ONLINE: https://www.mafmc.org/comments/bluefish-allocation-rebuilding-amendment
2. EMAIL: mseeley@mafmc.org
3. MAIL: Dr. Christopher Moore, Executive Director

Mid-Atlantic Fishery Management Council
800 North State Street, Suite 201
Dover, DE 19901
4. FAX:

302-674-5399
Please include "Bluefish Amendment" in the subject line if using email or fax, or on the outside of the envelope if submitting written comments.

## Tips for Providing Public Comment

We value your input. To be most effective, we request that your comment include specific details as to why you support or oppose a particular alternative. Specifically, please address the following:

- Which proposed alternative(s) do you support, and which do you oppose?
- Why do you support or oppose the alternative(s)?
- Is there any additional information you think should be considered?


## Contacts

If you have any questions, please contact:
Matthew Seeley, Mid-Atlantic Fishery Management
Council, mseeley@mafmc.org, 302-526-5262
Dustin Colson Leaning, Atlantic States Marine Fisheries
Commission, dleaning@asmfc.org, 703-842-0714

# Mid-Atlantic Council Seeks Applicants for Advisory Panels 

Applications Due by April 23, 2021

The Mid-Atlantic Fishery Management Council is accepting applications fromqualified individuals to serve on nine advisory panels. Advisory panels provide information and recommendations to the Council during the development of fishery management plans, amendments, specifications, and management measures. One of the chief responsibilities of advisory panels is the development of annual Fishery Performance Reports. These reports provide the Council and SSC with information about the factors that influenced fishing effort and catch within each fishery during the previous year.

Advisory panels are composed of individuals with diverse experience and interest in Mid-Atlantic fisheries. Members include commercial fishermen, recreational anglers, for-hire operators, commercial dealers, scientists, environmentalists, and other members of the interested public. Most advisory panels meet 1-2 times per year. Members are compensated for travel and per diem expenses for all meetings. Individuals who are appointed to advisory panels serve for three-year terms. All current advisory panel members must reapply in order to be considered for reappointment.

The Council is accepting applications for the following advisory panels:

- Summer Flounder, Scup, and Black Sea Bass
- Mackerel, Squid, and Butterfish
- Surfclam and Ocean Quahog
- Tilefish
- Bluefish
- Ecosystem and Ocean Planning
- River Herring and Shad
- Spiny Dogfish (Jointly managed with New England Council)
- Communication and Outreach (see the following page for details about this new AP)


## How to Apply

Anyone interested in serving on an advisory panel may apply online or download an application at www.mafmc.org/advisory-panel-application. Applications can also be obtained by calling the Council office at (877) 446-2362 or emailing msabo@mafmc.org.

Completed applications must be received by Friday, April 23, 2021.
If you have questions or need additional information, please contact Mary Sabo at (302) 518-1143, msabo@mafmc.org.

## Communication and Outreach Advisory Panel

The Council is soliciting applicants for a new Communication and Outreach (C/O) Advisory Panel. Formation of this AP was identified as a priority in the Council's 2020-2024 Strategic Plan and 2021 Implementation Plan. The C/O AP's primary purpose will be to provide advice and recommendations on effective strategies for achieving the Council's communication objectives. Specific tasks may include:

- Helping to identify effective communication tools and approaches for reaching Council stakeholders;
- Providing feedback on the content and delivery of Council communication and outreach products;
- Identifying opportunities to increase public understanding and awareness of the Council and its managed fisheries;
- Informing the Council about topics of stakeholder interest or high priority communication needs; and
- Reviewingand providing feedback on draftcommunication products (e.g. web pages or fact sheets), as needed.
Similar to the Council's other APs, membership on the C/O AP should reflect the diverse interests of the Mid-Atlantic Council's stakeholders. Members may include commercial and recreational fishermen, forhire operators, representatives from non-governmental organizations, scientists/academics, members of the general public, fishery managers, and communication/outreach professionals.

From: Alesia Affiliate [alesia.read@noaa.gov](mailto:alesia.read@noaa.gov) on behalf of "paul.n.doremus@noaa.gov" [paul.n.doremus@noaa.gov](mailto:paul.n.doremus@noaa.gov)
Date: Thursday, March 25, 2021 at 1:19 PM
To: "paul.n.doremus@noaa.gov" [paul.n.doremus@noaa.gov](mailto:paul.n.doremus@noaa.gov)
Subject: NOAA Fisheries Action to Continue to Waive Observer Coverage
Good Afternoon and Morning:
Today, NOAA Fisheries issued an interim final rule to continue to provide the authority to waive observer coverage, some training, and other program requirements, on a case-by-case basis. The rule is a continuation of NOAA Fisheries' response to the COVID-19 pandemic. The authority to waive coverage has resulted in a successful balance between public health and the safety of fishermen, observers, and others, while maintaining fishery operations and the monitoring necessary for sustainable management.

Under this emergency action, NOAA Fisheries Regional Administrators, Office Directors, and Science Center Directors maintain the ability to waive observer requirements under two criteria:

1. Placing an observer conflicts with travel restrictions or other requirements addressing COVID19 related concerns issued by local, state, or national governments, or the private companies that deploy observers pursuant to NOAA Fisheries regulations; or
2. No qualified observer(s) is available for placement due to health, safety, or training issues related to COVID-19.

NOAA Fisheries will consider a trip waiver if the observer providers cannot meet the risk mitigation protocols imposed by a state on commercial fishing crew or by the vessel or vessel company on its crew. Based on our regulatory and contract oversight authority, NOAA Fisheries intends to ensure that observer providers and their observers and monitors are following the same risk mitigation protocols that fishermen are following.

When observer requirements are waived, we continue to monitor fishing effort, catch data and other relevant information to ensure that there are no significant adverse environmental consequences and consider alternative fishery management measures should such consequences arise.

For more information, please visit our website.
Thank you,
Paul

## --

Paul Doremus
Acting Assistant Administrator
NOAA Fisheries
doremus@noaa.gov
301.427.8000
www.nmfs.noaa.gov

# MEMORANDUM 

Date: March 24, 2021
To: Dr. Chris Moore, Executive Director
From: Matthew Seeley, Staff
Subject: Revisions to the Northeast Trawl Advisory Panel Charter

At the January 14, 2021 Northeast Trawl Advisory Panel (NTAP) meeting, the panel reviewed the current charter and developed a list of NTAP research priorities to vote on given there are FY21 funds available to support NTAP research. The panel discussed and identified a variety of research projects that could be supported. Ultimately, the preferred research direction was deemed not possible due to logistical concerns. NTAP members then re-voted to express support for specific projects in order to reprioritize the potential research efforts. Now, the NTAP is initiating the process to pursue research on the effects of restrictor cables on catch using the NEAMAP platform. During the course of this discussion (and via email), NTAP members suggested the panel revisit the charter to confirm the shared understanding of the goals and topics the NTAP wants to address.

The NTAP met again on March 19, 2021 via webinar to discuss revisions to the NTAP charter. Revisions were initially suggested to improve transparency between industry, the Northeast Fisheries Science Center, and Councils. The NTAP discussed the panel purpose, current goals, priorities, and organizational structure to improve communications and effort at future meetings. Through this discussion, NTAP members suggested adding action items to the charter as a way to make measurable forward progress on prioritized research initiatives.

The NTAP initially planned to present these revisions at the April Council meetings, however the revisions to the charter are still in development. Therefore, any adjustments to the charter will be presented at a subsequent meeting for Council approval.

# MEMORANDUM 

Date: $\quad$ March 29, 2021
To: Chris Moore, Executive Director
From: Julia Beaty, staff
Subject: Offshore Wind Energy Updates

The Council requested updates on offshore wind energy development at every Council meeting. A list of updates is provided in the attached email which was sent to subscribers to the Council's public wind email list on March 29, 2021. Shortly after this email was sent, major updates on wind energy development were released by the White House and the Department of Interior, as described in the email sent to the Council on March 29, which is also included in this tab.

A more detailed update on offshore wind energy development is planned for the Council's June meeting. This update will likely include presentations from individual offshore wind project developers.

In addition to putting out periodic email updates, Council staff continue to work with New England Council and National Marine Fisheries Service staff to maintain webpages with information on offshore wind energy development and fisheries.

Although the timelines are uncertain, it is likely that there will be a higher volume of public comment periods for offshore wind energy projects throughout 2021 and 2022 than in previous years. Council staff typically work with New England Council staff to provide detailed comment letters to the Bureau of Ocean Energy Management and occasionally other federal agencies such as the U.S. Coast Guard on offshore wind energy issues. Recent comment letters are listed here.

Many offshore wind project developers are undertaking geophysical survey work during the spring and summer of 2021. Developers provide regularly updated notices to mariners with details on the timing and location of survey work in an attempt to minimize conflicts with fishermen and other ocean users. Council staff post these updates to the Council's Offshore Wind Notices to Fishermen webpage as they are received. Contact information for the fisheries liaisons for each offshore wind project is available in each notice to mariners and is also available here.

You are receiving this email because you signed up for the Mid-Atlantic Fishery Management Council's offshore wind interested parties email list or you expressed interest in this topic through communications with Council staff or at a public meeting. If you do not wish to receive future emails on this topic, you may unsubscribe using the "Manage Your Subscription" link at the bottom of this email. If you were forwarded this email and wish to subscribe to future updates, please visit https://www.mafmc.org/email-list and subscribe to Offshore Wind Updates.
The links and information shared in these updates are being provided as a convenience and for informational purposes only. They do not constitute an endorsement by the Council.

Greetings,
Please see below for offshore wind updates for March 29, 2021.

## Featured:

The Bureau of Ocean Energy Management (BOEM) released the Final Environmental Impact Statement for the Vineyard Wind 1 Project, which is available here. The next stage in the federal permitting process will be the Record of Decision which will include BOEM's determination regarding approval of the project, including mitigation and monitoring considerations. Vineyard Wind can begin construction if approval is granted through the Record of Decision.

## Wind Developer Outreach to Fishermen:

Offshore survey work: Many offshore wind project developers are undertaking geophysical survey work during the spring and summer of 2021. Developers provide regularly updated notices to mariners with details on the timing and location of survey work in an attempt to minimize conflicts with fishermen and other ocean users. These notices are available here.

EnBW North America, an offshore wind energy developer which does not currently hold a lease in this region, but has expressed an interest in future leases in the New York Bight, is soliciting information from fishermen to help them better engage with the fishing community. A survey for fishermen is available here. More information for fishermen is available here.

Vineyard Wind is seeking input from vessel owners regarding opportunities to hire local vessels to work on offshore wind projects in the future. Interested vessel owners can take a survey which is available here.

Fisheries liaisons for some offshore wind projects are beginning to resume limited face-toface meetings with fishermen. All fisheries liaisons are available to talk with fishermen via phone or email. Contact information for all fisheries liaisons is listed here.

Ørsted will host virtual outreach meetings with fishermen every Monday, Wednesday, and Friday from 8:00 am until 12:00 pm until they are able to resume face-to-face outreach. More information is available here. Ørsted owns or is a partner in leases for multiple offshore wind projects in the Mid-Atlantic and Southern New England.

Vineyard Wind continues to periodically offer free COVID-19 tests for fishermen at the Port of New Bedford. Information on dates and times can be found on the Vineyard Wind website.

## Upcoming Webinars:

The New York State Energy and Research Development Authority (NYSERDA) will host a webinar on April 7, 2021 from 1:00 pm to 2:00 pm EDT titled Offshore Wind Technologies 101. More information is available here.

The Mid-Atlantic Committee on the Ocean (MACO) will convene the third annual MidAtlantic Ocean Forum in virtual format on May 3-6, 2021. The forum will include a session on offshore wind energy development. More information is available here.

Stay Informed:
Updated notices to mariners regarding offshore wind projects off Massachusetts through North Carolina have been posted here.

For information on specific offshore wind projects, please see the individual developer webpages linked at: http://www.mafmc.org/northeast-offshore-wind.

If you wish to suggest an item for inclusion in the next update, please email jbeaty@mafmc.org.

Select wind updates from the New England Fishery Management Council are included in their periodic news roundups. To sign up for New England Fishery Management Council updates, please email Janice Plante at jplante@nefmc.org.

Thank you for your interest in this topic.
Julia Beaty
Fishery Management Specialist
Mid-Atlantic Fishery Management Council
800 North State Street, Suite 201
Dover, DE 19901-3901
302-526-5250
ibeaty@mafmc.org

From: Brian Hooker [Brian.Hooker@boem.gov](mailto:Brian.Hooker@boem.gov)
Date: Monday, March 29, 2021 at 1:21 PM
To: "Bachman, Michelle" < mbachman@nefmc.org>, "Beaty, Julia" < jbeaty@mafmc.org>, Roger Pugliese [roger.pugliese@safmc.net](mailto:roger.pugliese@safmc.net), Toni Kerns [tkerns@asmfc.org](mailto:tkerns@asmfc.org)
Cc: Christopher Moore [cmoore@mafmc.org](mailto:cmoore@mafmc.org), "tnies@nefmc.org" [tnies@nefmc.org](mailto:tnies@nefmc.org), Robert Beal [rbeal@asmfc.org](mailto:rbeal@asmfc.org)
Subject: White House and Department of the Interior Offshore Wind Announcements - March 29

Greetings fisheries mangers, I wanted to reach out and share with you today's announcements from the White House and the Department of the Interior about a series of coordinated steps taken by the Biden Administration to support offshore wind development:

- Commitment by Interior, Energy and Commerce to establish a target to deploy 30 gigawatts (30,000 megawatts) of offshore wind by 2030, creating nearly 80,000 jobs.
- Final Wind Energy Areas in the New York Bight and solicitation of comments on considerations to be included in an Environmental Assessment and consultation under Section 106 of the National Historic Preservation Act: https://www.boem.gov/boem-advances-offshore-wind-major-us-east-coast-energy-market.
- Notice of intent to prepare an Environmental Impact Statement for the Construction and Operations Plan (COP) submitted by Ocean Wind LLC to construct and operate an 1,100 megawatt wind energy facility offshore New Jersey: https://www.boem.gov/boem-announces-environmental-review-proposed-wind-energy-facility-offshore.

Additional information about these announcements can be found here:

- https://www.doi.gov/news/interior-joins-government-wide-effort-advance-offshore-wind; and
- https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/29/fact-sheet-biden-administration-jumpstarts-offshore-wind-energy-projects-to-create-jobs/

As always, please let me know if you have any questions. We'd be happy to give an update at your next appropriate meeting.
-Brian

Brian R. Hooker
Lead Biologist
Bureau of Ocean Energy Management
Office of Renewable Energy Programs
Mail Stop VAM-OREP
45600 Woodland Road
Sterling Virginia 20166
Office: 703-787-1634
Mobile: 571-393-4367

# New England Fishery Management Council Meeting Agenda <br> Tuesday - Thursday, April 13-15, 2021 <br> By Webinar 

Sending comments? Written comments must be received at the NEFMC office no later than 8:00 a.m., Thursday, April 8, 2021 to be considered at this meeting. Please address comments to Council Chairman Dr. John Quinn or Executive Director Tom Nies at: NEFMC, 50 Water St., Mill 2, Newburyport, MA 01950. Email submissions should be sent to comments@nefmc.org.

IMPORTANT: Due to ongoing federal and state travel restrictions and public safety guidelines related to COVID-19, this meeting will be conducted by webinar. Please continue to monitor the Council's April 2021 meeting webpage.

PUBLIC COMMENTS: The Council's "Guidelines for Providing Public Comments" can be found here. Anyone interested in speaking during the open period for public comment on April 15, 2021 at 11:00 a.m. should email Janice Plante at iplante@nefmc.org to get on the list.

## Tuesday, April 13, 2021

## 12:00 p.m. Reports on Recent Activities

Council Chairman, Council Executive Director, Greater Atlantic Regional Fisheries Office (GARFO) Regional Administrator, National Oceanic and Atmospheric Administration (NOAA) General Counsel, Northeast Fisheries Science Center (NEFSC), Mid-Atlantic Fishery Management Council (MAFMC), Atlantic States Marine Fisheries Commission, U.S. Coast Guard, NOAA Enforcement, and SAFMC Dolphin/Wahoo

1:30 Climate Science at Northeast Fisheries Science Center (Dr. Vince Saba, NEFSC)
Report on Northeast Fisheries Science Center efforts to address climate change impacts on fisheries
2:15 Break

2:30 Northeast Region Coordinating Council (NRCC) Climate Change Scenario Planning Initiative (Council Staff)
Report on the NRCC's scenario planning initiative to address climate change impacts and implications

3:00 NOAA Listening Session on Tackling the Climate Crisis at Home and Abroad (Dr. Paul Doremus, NOAA Fisheries)
NOAA listening session on Executive Order 14008, Tackling the Climate Crisis at Home and Abroad, focusing on Section 216(c), making fisheries and protected resources more resilient to climate change; Council recommendations and comments

4:15 Congressional Update (David Whaley)
Update on congressional activities; Council discussion

## Wednesday, April 14, 2021

9:00 a.m. Atlantic Herring Committee Report (Rick Bellavance)
Progress report and discussion of next steps on actions to: (1) develop a rebuilding plan to address the overfished status of the Atlantic herring resource; (2) potentially adjust herring accountability measures; and (3) consider spawning closures on Georges Bank under Framework Adjustment 7

11:00 Skate Committee Report: (Dr. Matt McKenzie)
Northeast Skate Complex Amendment 5: review scoping comments and identify next steps; receive update on other 2021 skate priorities

12:30 p.m. Lunch Break

1:30 Habitat Committee Report (Eric Reid)
Habitat Management Areas (HMAs): progress report on assessing revisions to the HMA on the Northern Edge of Georges Bank; Aquaculture: discuss and receive feedback on a strategy for ongoing Council engagement and coordination with NOAA Fisheries; Offshore Energy: update on offshore wind developments in the Greater Atlantic Region

| 3:00 | Atlantic Sea Scallop Biological Opinion (Jen Anderson, GARFO) |
| :---: | :---: |
|  | Progress report on 2021 Atlantic Sea Scallop Biological Opinion to address turtle interactions in the fishery |
| 3:15 | Scallop Report (Vincent Balzano) |
|  | Scallop Survey Working Group (SSWG): update on SSWG formation and recent activities, as well as other 2021 scallop priorities |
| 4:15 | Northeast Trawl Advisory Panel (NTAP) (Terry Alexander) |
|  | Report on March 19, 2021 meeting of the Northeast Trawl Advisory Panel; Council discussion |
| Thursday, April 15, 2021 |  |
| 9:00 a.m. | State of the Ecosystem 2021 (Dr. Sean Lucey, NEFSC) |
|  | Presentation on the Northeast Fisheries Science Center's State of the Ecosystem 2021 report |
| 10:00 | Scientific and Statistical Committee (SSC) (SSC Chair Dr. Jason McNamee) |
|  | Receive SSC's recommendations on the State of the Ecosystem 2021 report; Council discussion |
| 10:30 | Ecosystem-Based Fishery Management (EBFM) MSE Steering Committee (Dr. Matt McKenzie) |
|  | EBFM Management Strategy Evaluation (MSE) Steering Committee update on EBFM public information workshop planning |
| 11:00 | Open Period for Public Comment |
|  | Opportunity for the public to provide brief comments on issues relevant to Council business but not listed on this agenda (please limit remarks to 3-5 minutes) |
| 11:15 | Groundfish Report (Terry Alexander) |
|  | Recreational Party/Charter Limited Entry: Council decision on next steps in response to feedback on the recreational groundfish party/charter fishery limited entry strawman |
| 12:15 p.m. | Other Business |

Times listed next to the agenda items are estimates and are subject to change.
This meeting is being held entirely by webinar. Council member financial disclosure forms are available for examination on the Council website.
Although other non-emergency issues not contained on this agenda may come before this Council for discussion, those issues may not be the subject of formal action during this meeting. Council action will be restricted to those issues specifically listed in this notice and any issues arising after publication of this notice that require emergency action under section 305 (c) of the Magnuson-Stevens Act, provided the public has been notified of the Council's intent to take final action to address the emergency.

Documents pertaining to Council actions are available for review prior to a final vote by the Council.
Please check the Council's website, www.nefmc.org, or call (978) 465-0492 for copies.
This meeting will be recorded. Consistent with 16 USC 1852, a copy of the recording is available upon request.

South Atlantic Fishery Management Council
News Release

FOR IMMEDIATE RELEASE
March 5, 2021

CONTACT: Kim Iverson
Public Information Officer
Toll Free: 866/SAFMC-10 or 843/571-4366
Kim.Iverson@safmc.net

## Council Chooses Preferred Management Measures for Dolphin and Wahoo Fisheries <br> Proposed measures would reduce recreational vessel limits for Dolphin and bag limits for Wahoo

During its meeting this week, members of the South Atlantic Fishery Management Council chose preferred management alternatives affecting Dolphin and Wahoo harvested in federal waters along the entire Atlantic coast. The proposed measures, as outlined in Amendment 10 to the Dolphin Wahoo Fishery Management Plan, would reduce the current recreational vessel limit for Dolphin from 60 fish to 48 fish per vessel while maintaining the 10 fish per person/day bag limit and reduce the daily bag limit for Wahoo from 2 fish to 1 fish per person/day. Reductions in harvest are intended to help prevent seasonal closures that could be imposed should catch levels be exceeded.

Regional differences in the Dolphin and Wahoo fisheries became the focus of discussion as members of the Council reviewed concerns expressed during public hearings held in late January. Fishermen in South Florida and the Keys, including charter captains, have expressed concerns about catching fewer Dolphin and encountering smaller fish over the past few years and have requested the Council take action to reduce harvest. Further north, charter captains and other fishermen have raised objections to the proposed reductions, noting the importance of maintaining higher vessel limits for trips that require much farther runs offshore.
"We've heard from constituents and advisory panel members and believe their observations. Looking at the various management scenarios for both Dolphin and Wahoo, the Council compromised to reduce catches while addressing concerns of fishermen dependent on these valuable recreational fisheries," explained Council Chair Mel Bell. "There are many variables affecting these migratory fisheries, including international harvest, environmental conditions, and other factors. We don't have a clear sense of what the problem is and we're being more preventative than curative at this point," said Bell.

Amendment 10 also includes updates to annual catch limits, modifications to sector allocations, and changes to accountability measures designed to ensure the catch levels are not exceeded for both Dolphin and Wahoo. Proposed management measures would also allow properly permitted commercial fishing vessels with trap, pot or buoy gear onboard to retain up to 500 pounds (gutted weight) of Dolphin and remove the Operator Card requirement for for-hire and commercial fishermen in the Atlantic Dolphin Wahoo fishery. After considering recommendations from its advisory panels and public comment, the Council removed an action that would have allowed filleting Dolphin at sea on for-hire vessels in federal waters north of the NC/VA border. The Council is scheduled to approve Dolphin Wahoo Amendment 10 for review by the Secretary of Commerce during its June meeting.

## (Continued)

## Other Business:

## Red Snapper

NOAA Fisheries provided an update on the recreational Red Snapper Season for 2021. Due to delays from COVID-19, some landings data from 2020 are not yet available. Those data are expected in May 2021. NOAA Fisheries intends to announce the 2021 season as soon as data are available and evaluated. If a season is allowed, the recreational season for Red Snapper begins on the second Friday in July. The number of fishing days is determined by NOAA Fisheries based on catch estimates from the previous season. The recreational season was open for four days in 2020 and five days in 2019.

A new stock assessment for Red Snapper will be reviewed by the Council's Scientific and Statistical Committee (SSC) during its meeting in late April. The Council will receive an overview of the assessment and the SSC's recommendations during its June meeting. The Council discussed management options for considering the stock assessment results in setting the 2021 catch levels and requested that staff determine if an abbreviated framework can be used to adjust catch levels and if so, prepare such an amendment for Council review at their June 2021 meeting. The Council will also move forward with a plan amendment to modify annual catch limits, allocations, and other management measures necessary as a result of the stock assessment.

## King Mackerel, Red Porgy, Snowy Grouper and Rock Shrimp Fishery Access Area

The Council continued work on management measures addressing Atlantic migratory group King Mackerel to address the recent stock assessment update that found the stock is not overfished or undergoing overfishing. The measures, originally included in Framework Amendment 10 and now Amendment 34 to the Coastal Migratory Pelagics Fishery Management Plan, would modify annual catch limits and sector allocations, increase the recreational bag limit and possession limits off the coast of Florida, reduce the minimum size limits for both commercial and recreational sectors, and allow retention of "cut off" King and Spanish Mackerel by recreational fishermen as is allowed for the commercial sector. Public hearings on the amendment will be scheduled following the Council's June meeting.

Proposed management measures for Red Porgy to end overfishing and rebuild the stock continued to be reviewed in Amendment 50 to the Snapper Grouper Fishery Management Plan, with public hearings scheduled this summer. The Council reviewed recent stock assessment results for Snowy Grouper and recommendations from its SSC and will begin developing an amendment to address management measures. The Council also approved Coral Amendment 10 for public hearings to be held prior to the Council's June meeting. The amendment addresses a Shrimp Fishery Access Area for rock shrimp along the northern extension of the Oculina Bank Coral Habitat Area of Particular Concern off the east coast of Florida.

Additional information about this week's meeting, including a meeting Story Map, committee reports, and briefing book materials is available from the Council's website at: https://safmc.net/safmc-meetings/councilmeetings/. The next meeting of the South Atlantic Fishery Management Council is currently scheduled for June 14-18, 2021 in Ponte Vedra, Florida.

[^57]
[^0]:    ${ }^{\mathrm{a}} \mathrm{F}_{\text {threshold }}$ is calculated as 4.136 times the mean F during 1982 - 2015.
    ${ }^{\mathrm{b}} \mathrm{SSB}_{\text {threshold }}$ is calculated as $\mathrm{SSB}_{0} / 4$.
    ${ }^{\mathrm{c}} \mathrm{F}_{\text {threshold }}$ is 0.019 .
    ${ }^{\mathrm{d}} \mathrm{SSB}_{\text {threshold }}$ is calculated as $0.4 *$ SSB $_{0}$.

[^1]:    ${ }^{1}$ See the October 2020 staff memo for a dditional in formation on last EAFM update found at: https://static 1. squarespace.com/static/511 cdc 7fe4b00307a2628ac6/t/5f6e4559be67f1454e7c771f/1601062234474/T ab06 EAFM+Update 10 2020.pdf

[^2]:    ${ }^{2}$ The agenda, allmeeting materials, presentations, and webinar recording for the September $22^{\text {nd }} \mathrm{AP}$ meeting can be foundat: https://www.mafmc.org/council-events/2020/eop-sfsbsb-ap-meeting-sept22

[^3]:    ${ }^{3}$ For more information about the stakeholder scoping feedback, including the scoping form with a ll questions, please see: https://www.mafmc.org/newsfeed/2021/summer-flounder-mse-comment-opportunity

[^4]:    ${ }^{4}$ Additional background information on this project can be found at: https://www.lenfestocean.org/en/research-projects/predicting-near-term-fisheries-shifts-under-climate-change

[^5]:    ${ }^{1}$ Link to the Mid-Atlantic Council's announcement on the MSE scoping feedback form: https://www.mafmc.org/newsfeed/2021/summer-flounder-mse-comment-opportunity
    ${ }^{2}$ See Appendix B for the entire stakeholder feedback form which includes all questions asked of stakeholders.

[^6]:    ${ }^{1}$ The Council's allocation review policy is available at: https://www.mafmc.org/s/MAFMC-Fishery-Allocation-Review-Policy 2019-08.pdf.

[^7]:    ${ }^{2}$ See $3 / 24 / 21$ FMAT meeting summary to be posted in supplemental materials at https://www.mafmc.org/briefing/april-2021.

[^8]:    ${ }^{1}$ Only one document was formatted as a form letter; however, some other written comments were signed by more than one individual or included parts that were identical to other written comments. In all cases, every attempt was made to tally the number of individuals supporting a particular outcome while avoiding double-counting comments made by the same individual through multiple ways of commenting.

[^9]:    ${ }^{2}$ See section 1.2.

[^10]:    ${ }^{3}$ See section 1.2.

[^11]:    ${ }^{4}$ See section 1.2

[^12]:    ${ }^{1}$ See staff memo,
    https://static1.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/597b7da5c534a512fc895ccf/15012653318
    57/Tab12 ED-Report.pdf, Executive Director's Report, August 2017 Council meeting, p. 14 of 25.
    ${ }^{2}$ See
    https://static1.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/5f29767cf9b6a96f5b49760c/15965528288 57/4Com rec allocation amend removed items.pdf. This is despite the fact that recreational accountability, particularly pound for pound paybacks and in season closures, was "prominent" in many scoping comments for this action, see p. 3.
    ${ }^{3}$ See
    https://static1.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/5f297674fbf19242caa0b6c7/159655282167
    2/2Rec reform outline v6.pdf and
    https://static1.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/60181ba3214550605c302937/1612192676
    473/1Council_Board rec reformFeb2021.pdf.

[^13]:    ${ }^{4}$ See
    https://static1.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/6014816665251274f448e2da/1611956588 344/Tab06 Executive-Director-Report 2021-02.pdf.
    ${ }^{5}$ See
    https://static1.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/5ef2613a7378ce3f0fa5b1f7/159294290767 9/BSB fishery info doc 2020.pdf, commercial quota of 5.58 million lbs.

[^14]:    ${ }^{6}$ See
    https://static1.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/5df0fed8c4c6bc16efcf6688/157607497031 9/14 BSB rec Dec2019.pdf.
    ${ }^{7}$ See
    https://static1.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/5ddd90e2377ff72cee4311d2/15748016351 49/Tab14 BSB-Rec-Measures 2019-12.pdf , November 2019 staff memo, p. 7 and https://static1.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/5df0fed8c4c6bc16efcf6688/157607497031 9/14 BSB rec Dec2019.pdf, slide 12.
    ${ }^{8}$ See
    https://static1.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/5df0fed8c4c6bc16efcf6688/157607497031 9/14 BSB rec Dec2019.pdf slides 12-13.
    ${ }^{9}$ See
    https://static1.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/5df3b840b7f79f2f3301e724/15762535049 09/December+2019+Motions.pdf.

[^15]:    John Toth, JCAA President

[^16]:    Alaska Bering Sea Crabbers • Alaska Whitefish Trawlers Association • Cape Cod Commercial Fishermen's Alliance • Cordova District Fishermen United • Fishermen's Marketing Association • Fishing Vessel Owners' Association • Fort Bragg Groundfish Association • Georges Bank Cod Fixed Gear Sector • Gulf Fishermen's Association • Gulf of Mexico ReefFish Shareholders' Alliance • Hawaii Longline Association • Maine Coast Fishermen's Association • Midwater Trawlers Cooperative • New Hampshire Community Seafood • North Pacific Fisheries Association • Purse Seine Vessel Owners' Association • Rhode Island Commercial Fishermen's Association • South Atlantic Fishermen's Association • United Catcher Boats

[^17]:    ${ }^{1}$ For-hire effort continues to be assessed through a telephone survey of known for-hire operators. More information on how MRIP collects data from the recreational fishery is available at: https://www.fisheries.noaa.gov/recreational-fishing-data/types-recreational-fishing-surveys.

[^18]:    ${ }^{2}$ The current discard mortality rates assumed in the stock assessments and catch and landings limits calculations are: $10 \%$ for recreational summer flounder discards and $80 \%$ for commercial summer flounder discards; $15 \%$ for scup recreational discards and $100 \%$ for commercial scup discards; $15 \%$ for recreational black sea bass discards, $15 \%$ for commercial non-trawl black sea bass discards, and $100 \%$ for commercial trawl black sea bass discards. These discard mortality rates are used in all aspects of the management program which utilize estimates of dead discards.

[^19]:    ${ }^{3}$ The term fishermen applies to all people who fish, regardless of gender.

[^20]:    ${ }^{4}$ A summary of the current accountability measures for summer flounder, scup, and black sea bass can be found at: https://www.mafmc.org/s/AMs-description_SF_scup-BSB Dec2020.pdf.

[^21]:    ${ }^{5}$ See https://www.mafmc.org/actions/summer-flounder-amendment for additional information on this amendment.

[^22]:    ${ }^{6}$ The final 2017 report is available at: https://www.mafmc.org/s/Hicks-SchnierSummer_flounder_allocation_report_final_4_11_2017.pdf.
    ${ }^{7}$ The updated report (December 2020) is available at: https://www.mafmc.org/s/HicksSchnier_Summer_Flounder_allocation report UPDATE-Dec-2020.pdf.

[^23]:    ${ }^{\text {a }}$ Minor correction to this value was made on $3 / 8 / 21$.

[^24]:    ${ }^{8}$ https://www.mafmc.org/s/MAFMC-Fishery-Allocation-Review-Policy_2019-08.pdf

[^25]:    ${ }^{9}$ ACTs are set equal to or lower than the ACLs to account for management uncertainty. For these species, ACTs have typically been set equal to the ACLs in recent years.

[^26]:    ${ }^{10}$ Stock assessment reports for these species can be found at: https://www.fisheries.noaa.gov/resource/publication-database/northeast-stock-assessment-documents-search-tool.

[^27]:    ${ }^{a}$ This is the no action/status quo alternative. The values shown here represent the catch and landings limits implemented in 2020, not example measures using the methodology described in this appendix.

[^28]:    ${ }^{1}$ The Delphi method was run in 2016 and offered recreational landings for charter, party, and private a nglers. The Delphi method was used to develop a recreational time series for blueline tilefish through extrapolation of survey results. A ratio was used to back calculate private recreational la ndings in relation to charter la ndings from vessel trip reports. This method had been peer reviewed and accepted as best available science by SEDAR 50 (https://sedarweb.org/sedar-50) and further recommended by the MC.

[^29]:    ${ }^{1} \mathrm{http}: / / \mathrm{www} . \mathrm{mafmc}$. org/briefing/april-2016
    ${ }^{2}$ The March 2018 SSC meeting report is available at: http://www.mafmc.org/ssc.

[^30]:    ${ }^{3}$ The Delphi method was run in 2016 and offered recreational landings for charter, headboat, and private anglers. The Delphi method was used to develop a recreational time series for blueline tilefish through extrapolation of survey results. A ratio was used to back calculate private recreational landings in relation to charter landings from vessel trip reports. This method had been peer reviewed and accepted as best available science by SEDAR 50 and further recommended by the MC in 2019.

[^31]:    ${ }^{1}$ One VTR record indicated landings of 20,000 pounds. This report is being reviewed by the NMFS, but is thought to be an inaccuracy. Therefore, this report was removed from the results presented in Table 3.

[^32]:    ${ }^{2}$ Recreational discards are calculated as 2\% of overall landings.

[^33]:    ${ }^{3}$ The Delphi method was utilized in 2016 and offered recreational landings for charter, headboat, and private anglers. The Delphi method was used to develop a recreational time series for blueline tilefish through extrapolation of survey results. A ratio was used to back calculate private recreational landings in relation to charter landings from vessel trip reports. This method had been peer reviewed and accepted as best available science by SEDAR 50 and further recommended by the MC through 2020.

[^34]:    ${ }^{1}$ Currently, the fishing year starts on November 1 (November 1 - October 31), two months ahead of the yearly projections used to derived catch and landings limits (January 1 - December 31).

[^35]:    ${ }^{2}$ For example, under the current schedule, management track assessments are scheduled every 3 years. However, as fishery independent data becomes available and/or stock assessment modeling improves, future management track assessments could be conducted every four years or so.

[^36]:    ${ }^{3}$ As a result of the decision of the Hadaja v. Evans lawsuit, the permitting and reporting requirements for the FMP were postponed for close to a year (May 15, 2003 through May 31, 2004). During that time period, it was not mandatory for permitted golden tilefish vessels to report their landings. In addition, during that time period, vessels that were not part of the golden tilefish limited entry program also landed golden tilefish.

[^37]:    ${ }^{4}$ Incorporation of likelihood constants into the objective function can cause biases in assessment models. This bias can result in reductions in the estimated recruitment and biomass. For additional details see: Nitschke, P. 2017. Golden Tilefish, Lopholatilus chamaeleonticeps, stock assessment update through 2016 in the Middle Atlantic-Southern New England Region. NMFS/NEFSC, Woods Hole, MA. Available at http://www.mafmc.org/council-events/2017/march-2017-ssc-meeting

[^38]:    ${ }^{5}$ Available here (2018 Spiny Dogfish Assessment Update).
    ${ }^{6}$ Available here (SEDAR 39).
    ${ }^{7}$ Available here (SEDAR 50).

[^39]:    ${ }^{8}$ See tilefish regulations at http://www.nero.noaa.gov/regs/fr.html for specific coordinates of the closed areas.

[^40]:    ${ }^{9}$ Also see sea turtle species status reviews and recovery plans at the following websites: http://www.nmfs.noaa.gov/pr/listing/reviews.htm\#species; http://www.nmfs.noaa.gov/pr/recovery/plans.htm\#turtles

[^41]:    ${ }^{10}$ Any injury leading to a significant health decline (e.g., skin discoloration, lesions near the nares, fat loss, increased cyamid loads) is classified as a serious injury (SI); A value of " 1 " is set for cases determined to be a SI (Henry et al. 2016).

[^42]:    ${ }^{11}$ Stranding data provided in Waring et al. (2015) and Hayes et al. (2017) was not considered in estimating mean annual mortality as not all bottlenose dolphin stocks are addressed in this stock assessment report and/or details of the strandings were not provided. As all bottlenose dolphin stocks are considered in Waring et al. (2014a) and Waring et al. (2016), these stock assessment reports were used to estimate mean annual mortality. Estimates of mean annual mortality were calculated based on the total number of animals that stranded between 2007-2013, and that were determined to have incurred serious injuries or mortality as result of interacting with hook and line gear. Please note, any animals released alive with no serious injuries were not included in the estimate. Also, if maximum or minimum number of animals stranded were provided, to be conservative, we considered the maximum estimated number in calculating our mean annual estimate of mortality.

[^43]:    ${ }^{12}$ Source: 2021 Golden Tilefish Advisory Panel Fishery Performance Report

[^44]:    *Actions that will substantially increase or decrease stock size, but do not change a stock status may have different impacts depending on the particular action and stock. Meaningful differences between alternatives may be illustrated by using another resource attribute aside from the MSA status, but this must be justified within the impact analysis.

[^45]:    ${ }^{13}$ Currently, the fishing year starts on November 1 (November 1 - October 31), two months ahead of the yearly projections used to derived catch and landings limits (January 1 - December 31).

[^46]:    ${ }^{1}$ https://noaa-edab.github.io/tech-doc/glossary.html
    ${ }^{2}$ https://NOAA-EDAB.github.io/tech-doc
    ${ }^{3}$ https://github.com/NOAA-EDAB/ecodata

[^47]:    ${ }^{4}$ https://noaa-edab.github.io/ecodata/human__dimensions_MAB\#Commercial; "Oyster Aquaculture" tab

[^48]:    ${ }^{5}$ https://www.nasa.gov/press-release/2020-tied-for-warmest-year-on-record-nasa-analysis-shows

[^49]:    ${ }^{7}$ https://www.nefsc.noaa.gov/AMAPPSviewer/

[^50]:    ${ }^{1}$ http://www.mafmc.org/s/EAFM__Guidance-Doc_2017-02-07.pdf
    ${ }^{2}$ http://www.mafmc.org/s/EAFM-Doc-Revised-2019-02-08.pdf

[^51]:    ${ }^{3}$ https://noaa-edab.github.io/ecodata/Hab_table

[^52]:    ${ }^{1}$ Available at https://www.mafmc.org/s/Scenario-planning-Nov-2020-for-NRCC.pdf

[^53]:    ${ }^{1}$ National Park Service, 2013. Using Scenarios to Explore Climate Change: A Handbook for Practitioners. National Park Service Climate Change Response Program. Fort Collins, Colorado. Available at: https://www.nps.gov/parkhistory/online books/climate/CCScenariosHandbookJuly2013.pdf.
    ${ }^{2}$ Available at: [link to be added]

[^54]:    ${ }^{1}$ See comment letterssent to President Obama(6/26/16), President Trump (3/1/17), SecretaryZinke and Secretary Ross (5/16/17), Secretary Ross (5/29/20), and Acting Secretary De la Vega (2/26/21), all available at http://www.fisherycouncils.org/ccc-correspondence

[^55]:    ${ }^{1}$ Other definitions relevant to conservation of marine resources include those in the MSA Section 3(5), the IUCN category VI, and UNCLOS Article 119.

[^56]:    ${ }^{2}$ Including the Administrative Procedure Act, Coastal Zone Management Act, Endangered Species Act, Information Quality Act, Marine Mammal Protection Act, National Environmental Policy Act, National Marine Sanctuaries Act, Paperwork Reduction Act, Regulatory Flexibility Act and Executive Orders 12630, 12866, 12898, 13089, 13132, 13158, 13175, 13272.
    ${ }^{3}$ Including the Western and Central Pacific Fisheries Commission, Inter-American Tropical Tuna Commission, North Pacific Fisheries Commission, Pacific Salmon Commission, Northwest Atlantic Fisheries Organization, and others.

[^57]:    The South Atlantic Fishery Management Council, one of eight regional councils, conserves and manages fish stocks from three to $\mathbf{2 0 0}$ miles offshore of North Carolina, South Carolina, Georgia and east Florida.

