# December 14-17, 2020 Council Meeting Webinar Briefing Book Directory 

Meeting Web Page: http://www.mafmc.org/briefing/december-2020
Webinar: http://mafmc.adobeconnect.com/december2020/
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| December 2020 MAFMC Webinar Agenda |  |
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| Tab 05: Scup 2021 Recreational Specifications | - Summary of November 16, 2020 Monitoring Committee meeting <br> - Summary of November 10, 2020 Advisory Panel meeting <br> - Email comments from advisors and others on summer flounder, scup and/or black sea bass recreational measures received by December 2, 2020 <br> - Staff memo on 2021 recreational scup measures November 3, 2020 |
| :---: | :---: |
| Tab 06: Black Sea Bass Recreational Measures for 2021 | - See Monitoring Committee and AP Meeting Summaries and public comments under Tab 5 <br> - Staff memo on 2021 recreational black sea bass measures |
| Tab 07: Summer Flounder Recreational Measures for 2021 | - See Monitoring Committee and AP Meeting Summaries and public comments under Tab 5 <br> - Staff memo on 2021 recreational summer flounder measures |
| Tab 08: 2021 Bluefish Recreational Management Measures | - Monitoring Committee Meeting Summary <br> - Bluefish Advisory Panel Meeting Summary <br> - Staff Memo on 2021 Bluefish Recreational Management Measures |
| Tab 09: Bluefish Board Only | - Technical Committee Report on Recommendations on Bluefish Age and Length Frequency Data Sampling |
| Tab 10: Recreational Reform Initiative Framework/ Addendum and Amendment | - Staff Memo: Next steps for Recreational Reform Initiative Framework/Addendum and Amendment |
| Tab 11: Summer Flounder, Scup, and Black Sea Bass Commercial/Recreational Allocation Amendment | - Draft joint public hearing document <br> - FMAT meeting summary from November 5, 2020 <br> - White paper: Potential Effects of Alternative Allocation of Catch to Recreational and Commercial Sectors on the Probability of Overfishing <br> - Action plan |
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| Tab 13: Executive Director's Report | - Status of Council Actions Under Development <br> - Status of Completed Council Actions and Specifications <br> - 2021 Meeting Schedule <br> - 2022 Meeting Schedule <br> - 2021 Stock Assessment Schedule <br> - NRCC Fall Meeting Agenda <br> - Staff Memo: Surfclam Genetic Study Update <br> - Staff Memo: SBRM 3-Year Review <br> - Draft Letter to Secretary of Interior Regarding USFWS Licensing and Inspection Requirements for U.S. Squid Fisheries |
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# December 2020 Council Meeting Webinar 

Monday, December 14 - Thursday, December 17, 2020
http://www.mafmc.org/briefing/december-2020

## Agenda

Monday, December $14^{\text {th }}$<br>1:30 p.m. - 2:00 p.m. Executive Committee (CLOSED) (Tab 1)<br>- Ricks E Savage Award<br>2:00 p.m. Council Convenes<br>2:00 p.m. - 4:00 p.m. 2021 Implementation Plan (Tab 2)<br>- Review and approve 2021 Implementation Plan<br>4:00 p.m. Council Adjourns

Tuesday, December 15th
9:00 a.m. Council Convenes
9:00 a.m. - 10:00 a.m. SSC Economic Work Group Report (Tab 3)

- Review and select economic case study for development in 2021

10:00 a.m. - 11:00 a.m. Council Recusal Process
John Almeida, NMFS
11:00 a.m. - 12:00 p.m. Update on Habitat Activities (Tab 4)

- NMFS Habitat Conservation Division review of regional projects of interest, including offshore wind projects and aquaculture
- Update on Responsible Offshore Science Alliance (ROSA) and other Council involvement in offshore wind energy development

12:00 p.m. - 1:00 p.m. Lunch
1:00 p.m. Council Meeting with the Atlantic States Marine Fisheries Commission's (ASMFC) Summer Flounder, Scup, and Black Sea Bass Management Board

| 1:00 p.m. - 2:00 p.m. | Scup 2021 Recreational Specifications (Tab 5) <br> - Review recent fishery performance and recommendations from the Monitoring Committee and Advisory Panel <br> - Adopt recommendations for 2021 federal waters recreational management measures |
| :---: | :---: |
| 2:00 p.m. - 3:00 p.m. | Black Sea Bass 2021 Recreational Specifications (Tab 6) <br> - Review recent fishery performance and recommendations from the Monitoring Committee and Advisory Panel <br> - Recommend federal waters recreational management measures or Conservation Equivalency and associated measures for 2021 |
| 3:00 p.m. - 4:00 p.m. | Summer Flounder 2021 Recreational Specifications (Tab 7) <br> - Review recent fishery performance and recommendations from the Monitoring Committee and Advisory Panel <br> - Recommend Conservation Equivalency or coastwide management and associated measures for 2021 |
| 4:00 p.m. | Council Meeting with the ASMFC Bluefish Management Board |
| 4:00 p.m. - 5:00 p.m. | Bluefish 2021 Recreational Specifications (Tab 8) <br> - Review recent fishery performance and recommendations from the Monitoring Committee and Advisory Panel <br> - Adopt recommendations for 2021 federal waters recreational management measures |
| 5:00 p.m. | Council Adjourns |
| 5:00 p.m. - 5:45 p.m. | Bluefish Board Only: Technical Committee Report on Biological Monitoring Program (Tab 9) <br> Review effectiveness of the Addendum I sampling design |
| 5:45 p.m. | Commission Adjourns |
| Wednesday, Decemb | $\mathbf{1 6}^{\text {th }}$ |
| 9:00 a.m. | Council Meeting with the ASMFC Interstate Fisheries Management Program Policy Board |
| 9:00 a.m. - 9:30 a.m. | Recreational Reform Initiative (Tab 10) <br> Update and discuss next steps |
| 9:30 a.m. | Council Meeting with the ASMFC Summer Flounder, Scup, and Black Sea Bass Management Board |
| 9:30 a.m. - 12:30 p.m. | Summer Flounder, Scup, and Black Sea Bass Commercial/Recreational Allocation Amendment (Tab 11) <br> - Review and approve joint draft public hearing document for public comment <br> - Board only: approve draft Commission amendment document for public comment |
| 12:30 p.m. - 1:30 p.m. | Lunch |
| 1:30 p.m. - 4:30 p.m. | Black Sea Bass Commercial State Allocation Amendment and Draft Addendum XXXIII for Final Action (Tab 12) |

- Review public comment summary and AP input
- Consider for final action

Thursday, December 17 $^{\text {th }}$
9:00 a.m.
Council Convenes
9:00 a.m. - 10:00 a.m. Update on Atlantic Right Whale Issues
Colleen Coogan (Take Reduction Team Coordinator) - NMFS/GARFO
Sean Hayes (Chief, Protected Species Branch) - NMFS/NEFSC

- Preliminary 2019 population estimate
- Atlantic Large Whale Take Reduction Plan Draft Environmental Impact Statement (DEIS) and proposed rule
- Draft Batched Biological Opinion

10:00 a.m. - 1:00 p.m. Business Session
Committee Reports

## Executive Director's Report (Tab 13)

Chris Moore

## 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 14)

- New England Council
- South Atlantic Council


## Continuing and New Business

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.

## Monday, October 5 ${ }^{\text {th }}$

## Executive Committee - 2021 Implementation Plan

Move to relocate item \#66 (Initiate an action to implement a possession limit for frigate and bullet mackerel in the Mid-Atlantic) to the main list of draft proposed actions and deliverables.
DiLernia/deFur (6/6/0)
Motion fails due to lack of majority

## Tuesday, October 6 ${ }^{\text {th }}$

## Spiny Dogfish Committee of the Whole

I move to adopt the following for the 2021 and 2022 fishing years’ spiny dogfish specifications, from Table 1 in the Monitoring Committee summary memo:

| Specifications | 2021 Revised/ 2022 (pounds) | 2021 Revised/ 2022 (mt) | Basis for Revised 2021 (and 2022) Specifications |
| :--- | :--- | :--- | :--- |
| OFL (from SSC) | na | na | na |
| ABC (from SSC) | $38,576,487$ | 17,498 | SSC, Revised Council Risk Policy |
| Canadian Landings | 99,208 | 45 | = 2018 estimate |
| Domestic ABC | $38,477,279$ | 17,453 | = ABC - Canadian Landings |
| ACL | $38,477,279$ | 17,453 | = Domestic ABC |
| Mgmt Uncert Buffer | 0 | 0 | Ave pct overage since 2011 |
| ACT | $38,477,279$ | 17,453 | = ACL - mgmt uncert buffer |
| U.S. Discards | $8,800,854$ | 3,992 | = 3-year average 2016-17-18 |
| TAL | $29,676,425$ | 13,461 | ACT - Discards |
| U.S. Rec Landings | $\mathbf{1 1 6 , 8 4 5}$ | 53 | = 2019 estimate |
| Comm Quota | $29,559,580$ | 13,408 | TAL - Rec Landings |

Batsavage/Reid
Motion carries Committee of the Whole by consent
Spiny Dogfish (Council)
I move to adopt the following for the 2021 and 2022 fishing years’ spiny dogfish specifications, from Table 1 in the Monitoring Committee summary memo:

| Specifications | 2021 Revised/ 2022 (pounds) | 2021 Revised/ 2022 (mt) | Basis for Revised 2021 (and 2022) Specifications |
| :--- | :--- | :--- | :--- |
| OFL (from SSC) | na | na | na |
| ABC (from SSC) | $38,576,487$ | 17,498 | SSC, Revised Council Risk Policy |
| Canadian Landings | 99,208 | 45 | = 2018 estimate |
| Domestic ABC | $38,477,279$ | 17,453 | = ABC - Canadian Landings |
| ACL | $38,477,279$ | 17,453 | = Domestic ABC |
| Mgmt Uncert Buffer | $\mathbf{0}$ | $\mathbf{0}$ | Ave pct overage since 2011 |
| ACT | $38,477,279$ | 17,453 | = ACL - mgmt uncert buffer |
| U.S. Discards | $8,800,854$ | 3,992 | = 3-year average 2016-17-18 |
| TAL | $29,676,425$ | 13,461 | ACT - Discards |
| U.S. Rec Landings | $\mathbf{1 1 6 , 8 4 5}$ | 53 | = 2019 estimate |
| Comm Quota | $29,559,580$ | 13,408 | TAL - Rec Landings |

Gwin for Committee of the Whole
Motion carries by consent

## Executive Order

Move to approve the draft list of Executive Order 13921 recommendations as modified today for submission to NMFS.
Bolen/Hughes
Motion carries by consent with one abstention by NMFS

## Wednesday, October 7th

## Bluefish Allocation and Rebuilding Amendment

Move to accept all FMAT recommendations on issue 3 (keeping 3.1.5) in the range of alternatives for the public hearing document.
Council: Cimino/Hughes
Board: Cimino/Clark
Move to amend to accept all FMAT recommendations on issue 3 (keeping 3.1.5, 3.3.1, 3.4.2) in the range of alternatives for the public hearing document.
Board: Hasbrouck/Meserve (14/2/0/0)
Council: Farnham/Davidson (18/2/0)
Motion carries
Amended motion becomes main motion:
Move to accept all FMAT recommendations on issue 3 (keeping 3.1.5, 3.3.1, 3.4.2) in the range of alternatives for the public hearing document.
Council: (20/0/0)
Board: (16/0/0/0)
Motion carries

Move to accept the FMAT recommendation to remove Issue 4 from the public hearing document.
Council: Hemilright/Lenox (20/0/0)
Board: Patterson/Meserve (14/2/0/0)
Motion carries
Move to accept the FMAT recommendation to remove Alternatives 5.1.2 and 5.1.4 from the public hearing document.
Council: Pentony/DiLernia (19/1/0)
Board: Pentony/Clark (13/3/0/0)
Motion carries
Move to amend to remove only 5.1.4 from the public hearing document.
Council: Nowalsky/Cimino (9/11/0)
Board: Nowalsky/Hart
Motion fails due to lack of Council majority
Move to accept the FMAT recommendation to remove Alternatives 6.1.1 and 6.1.3 from the public hearing document.
Council: Pentony/Cimino (Carries by consent)
Board: Pentony/Patterson (16/0/0)
Motion carries
Move to modify by adding subsection 8.1.2 that states that declare de minimis would be required to implement default plan provisions for current recreational daily harvest limits.
Council: Cimino/Nowalsky (19/0/1)
Board: Miller/McNamee (13/2/1/0)
Motion carries
Move to approve the range of alternatives for the draft public hearing document as modified today.
Council: DiLernia/Wilke (Carries by consent)
Board: Hasbrouck/Patterson (Carries by consent)
Motion carries

## Recreational Reform Initiative

Move to initiate a joint framework/addendum to address the following topics for summer flounder, scup, black sea bass, and bluefish, as discussed today:

- Better incorporate MRIP uncertainty into management
- Develop guidelines for maintaining status quo measures
- Develop a process for setting multi-year measures
- Consider changes to the timing of federal waters measures recommendations

Council: DiLernia/Davidson
Board: Fote/Clark
Move to amend the main motion to include the harvest control rule option in the joint framework/addendum and to also initiate an amendment to address recreational sector separation and recreational catch accounting such that scoping for the amendment would be conducted during the development of the framework/addendum.

Council: Pentony/DiLernia (18/2/0)
Board: Pentony/Cimino (12/4/1/0)
Motion carries
Move to substitute to initiate management actions through the appropriate mechanisms (technical guidance document,
framework/addendum, or amendment) for topics 1-9 presented today.
Board: Reid/Nowalsky (4/12/0/0)
Council: Nowalsky/Townsend
Motion fails for lack of Board majority
Amended motion becomes main motion:
Move to initiate a joint framework/addendum to address the following topics for summer flounder, scup, black sea bass, and bluefish, as discussed today:

- Better incorporate MRIP uncertainty into management
- Develop guidelines for maintaining status quo measures
- Develop a process for setting multi-year measures
- Consider changes to the timing of federal waters measures recommendations
- Harvest control rule
and to also initiate an amendment to address recreational sector separation and recreational catch accounting such that scoping for the amendment would be conducted during the development of the framework/addendum.

Council: (18/0/0)
Board: (15/2/0/0)
Motion carries

## Stock Status of MAFMC-Managed Species

(as of $12 / 1 / 20$ )

| SPECIES | STATUS DETERMINATION CRITERIA |  | Stock Status | Most Recent Assessment |
| :---: | :---: | :---: | :---: | :---: |
|  | Overfishing <br> $\mathrm{F}_{\text {threshold }}$ | Overfished $1 / 2 B_{\text {MSY }}$ |  |  |
| Summer <br> Flounder | F35\% мsр $=0.448$ | $\begin{gathered} 63 \\ \text { million lbs } \end{gathered}$ | No overfishing Not overfished | Most recent benchmark assessment was 2018. |
|  | F40\%ммр $=0.215$ | $\begin{gathered} 103.64 \\ \text { million lbs } \end{gathered}$ | 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. |
|  | $\mathrm{F}_{35 \% \text { SPR }}=0.183$ | $\begin{gathered} 219.05 \\ \text { million lbs } \end{gathered}$ | 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 | $\begin{gathered} 46.7 \\ \text { million lbs } \end{gathered}$ | 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 |
|  | $\begin{gathered} \mathrm{F}_{\text {Proxy }}=2 / 3 \mathrm{M} \\ =0.81 \end{gathered}$ | 50.3 <br> million lbs | 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 $1 / 2 B_{M S Y}$ |  |  |
| Surfclam | $F / F_{\text {threshold }}=1^{\text {a }}$ | SSB/SSB ${ }_{\text {threshold }}=1{ }^{\text {b }}$ | No overfishing Not overfished | Most recent assessment was 2020 |
| Ocean Quahog | $F / F_{\text {threshold }}=1{ }^{\text {c }}$ | SSB/SSB ${ }_{\text {threshold }}=1{ }^{\text {d }}$ | No overfishing Not overfished | Most recent assessment was 2020. |
| Golden Tilefish | $\mathrm{F}_{38 \% \mathrm{MSP}}=0.310$ | $\begin{gathered} 10.46 \\ \text { million lbs } \end{gathered}$ | 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: <br> Unknown <br> Unknown | Most recent benchmark assessment was 2017. |
| Spiny Dogfish (Joint mgmt with NEFMC) | $\mathrm{F}_{\mathrm{MSY}}=0.2439$ | $\begin{gathered} 175.6 \\ \text { million Ibs } \\ \text { Female SSB } \end{gathered}$ | 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 TRAC Assessment Reports.

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## Stock Size Relative to Biological Reference Points

(as of $12 / 1 / 20$ )


## 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 | 2016 |
| Spiny Dogfish | 2018 |
| Surfclam | 2019 |
| Scup | 2018 |
| Summer Flounder | 2017 |

Fishing Mortality Ratios for
MAFMC-Managed Species
(as of $12 / 1 / 20$ )


## 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 | 2016 |
| Scup | 2018 |
| Summer Flounder | 2017 |

## Guidelines for the Ricks E Savage Award

## Eligibility:

A person who has added value to the MAFMC process and management goals through significant scientific, legislative, enforcement or management activities is eligible.

## Award

The award will be presented during the February meeting.

## Selection Process

1. Written nominations will be solicited and received by the end of November each year by the Executive Committee.
2. Initially, nominations may only be made by Mid-Atlantic Council members.
3. The Executive Committee will select the recipient by consensus.
4. The recipient's identity will remain confidential if possible, until announced during the award presentation.

## Other Award Rules

1. Candidates must be nominated each year: no nominations will carry over.
2. Recipients can be reimbursed for travel expenses to receive the award.
3. The recipient will receive a plaque. A permanent plaque will be placed in the Headquarters office in Dover with a list of all the recipients.

## Past Recipients

2006 - Jim Ruhle
2007 - Jim Gilford
2008 - Phil Ruhle
2009 - Laurie Nolan
2010 - Dennis Spitsbergen
2011- John Boreman
2012 - Jack Travelstead
2013 - Red Munden
2014 - George Darcy
2015 - Pres Pate

2016 - Lee Anderson
2017 - Howard King
2018 - Rich Seagraves
2019 - Rob O'Reilly

## Guidelines for Award of Excellence

The Mid-Atlantic Fishery Management Council Award of Excellence recognizes an individual's outstanding contribution to fisheries management, legislation, science, or law enforcement in the midAtlantic region.

## Award

The award will be made on a periodic basis subject to the identification and selection of outstanding individuals.

## Selection process:

Council members will send written nominations to the Executive Director at any time during the year.

The Executive Director will present nominations to the Executive Committee as they become available.

The Executive Committee will meet to discuss the nominee's achievements and select the recipient by consensus.

The award presentation will occur at an award ceremony in association with a Mid-Atlantic Council meeting.

The recipient will receive an award trophy at the ceremony and a permanent plaque will be placed in the Council office in Dover, DE with a list of all the recipients.

## Past Recipients:

August, 2016 - Richard B. Robins, Jr.

# MEMORANDUM 

Date: $\quad$ December 3, 2020
To: Council
From: Mary Sabo
Subject: 2021 Implementation Plan

During the December 2020 meeting, the Council will meet on Monday, December 14 at 2:00 p.m. to review and consider approval of the 2021 Implementation Plan. The annual implementation plan is developed each year as a tool for planning and prioritizing activities for the upcoming year within the broader context of the Council's longer-term goals and objectives.

The following documents are enclosed for Council consideration:

1. MAFMC 2020-2024 Strategic Plan Overview
2. End-of-Year Updates on 2020 Proposed Deliverables
3. Draft 2021 Implementation Plan
4. 2021 Deliverables - Supplemental Project Descriptions
5. Follow Up on Bullet and Frigate Mackerel Possession Limit (see summary below)

5a. Staff Memo: Potential Action to Implement Commercial Possession Limit for Bullet and Frigate Mackerel
5b. SAFMC Letter Regarding Submission of Amendment 12 to the Dolphin Wahoo FMP (Note: the amendment will be available as a supplemental document under this agenda item on the December meeting page: https://www.mafmc.org/briefing/december-2020)

## Potential Action to Implement Commercial Possession Limit for Bullet and Frigate Mackerel

 During the October 2020 Council Meeting, the Executive Committee had a lengthy discussion about whether to move the draft deliverable "Initiate an action to implement a possession limit for frigate and bullet mackerel in the Mid-Atlantic" from the "Possible Additions" section to the proposed deliverables for 2021. A motion to make this change ultimately failed based on a tied vote. This action remains on the draft list of "Possible Additions" for consideration by the Council in December. The Committee requested that staff provide additional information during the December Council meeting on why the South Atlantic Fishery Management Council decided against implementing a possession limit for these species, the potential connection between these species and the Mid-Atlantic Council's Fishery Management Plans (e.g., as prey for Council managed species or bycatch in Council managed fisheries), and the type of management action that could be used to implement a possession limit for these species in the Mid-Atlantic. This information is provided in the enclosed memo (5a). Staff recommend that the Council develop options for a commercial possession limit of bullet and frigate mackerel in MidAtlantic federal waters through a framework adjustment to the Bluefish Fishery Management Plan.MID-ATLANTIC
IStry management council

## MAFMC 2020-2024 Strategic Plan Overview

This overview is intended to provide an abbreviated, "at-a-glance" view of the topics addressed in the Council's 2020-2024 Strategic Plan. Please refer to the complete plan for additional details.
www.mafmc.org/strategic-plan

## Mission

The Council manages fisheries in federal waters of the Mid-Atlantic region for their long-term sustainability and productivity consistent with the national standards of the Magnuson-Stevens Fishery Conservation and Management Act. The Council is committed to the stewardship of these fisheries, and associated ecosystems and fishing communities, through the collaborative development of effective, science-based fishery management plans and policies.

## Vision

Healthy marine ecosystems and thriving, sustainable fisheries and fishing communities that provide the greatest overall benefit to the nation.

## Core Values

- Stewardship
- Integrity
- Effectiveness
- Fairness
- Competence
- Transparency

Communication: Engage stakeholders and the public through education and outreach that foster sustained participation in, and awareness of, the Council process.

## 1. Tools and methods

- Use a variety of traditional, web-based, and social media tools
- Upgrade the website content and organization
- Coordinate with management partners
- Expand media coverage
- Expand the use of "interested parties" lists
- Maintain online calendar
- Establish Communication/Outreach Advisory Panel


## 2. Stakeholder participation

- Hold workshops to develop innovative management approaches
- Develop outreach materials to facilitate stakeholder participation
- Schedule and conduct meetings/hearings in a manner that encourages participation
- Expand use of online comment forms
- Develop action-specific web pages
- Use webinars and other technologies to enable remote participation


## 3. Education and awareness

- Develop outreach and education materials on Council fisheries and process
- Promote partner organizations' workshops and educational opportunities
- Collaboratively develop outreach materials on fisheries science and data collection
- Use plain language in Council documents


## Science: Ensure that the Council's management decisions are based on timely and accurate scientific information and methods.

## 4. Planning and addressing research needs

- Leverage opportunities to include Council research priorities in external funding programs
- Engage in regional collaboration on research priorities and planning
- Support the new NRCC stock assessment process
- Develop a process for cross-communication between SSCs
- Develop a comprehensive research plan


## 5. Collaborative research

- Expand/enhance existing Northeast Cooperative Research Program initiatives
- Identify research needs suitable for collaborative research
- Support the use of "vessels of opportunity"
- Support priorities identified by NEAMAP operations committee
- Support innovations in gear development to reduce bycatch
- Evaluate future RSA options


## 6. Data collection, monitoring and reporting

- Support Fishery Dependent Data Initiative
- Support development of a unique trip identifier
- Work to eliminate duplicative/unnecessary reporting
- Address inconsistencies in commercial and for-hire permitting/reporting/inspection requirements
- Consider phone apps for recreational reporting


## 7. Social and economic data

- Identify existing social/economic data sources
- Incorporate fishermen's knowledge in the stock assessment process
- Identify data/information gaps that can be addressed with on-thewater observations.
- Support improvements to social/economic analyses

Management: Develop effective management strategies that provide for sustainable fisheries and healthy marine ecosystems and consider the needs of fishing communities and other resource users.

## 9. Coordinated management through

## partnerships

- Use the NRCC to enhance coordination and communication
- Coordinate with partners to ensure efficient allocation of staff resources
- Address inconsistencies across state/federal/regional boundaries


## 10. Adapt management approaches

- Monitor variability in species distribution, abundance, and availability
- Use FPRs and SOE reports to develop management responses to changing conditions
- Review the performance of existing measures

11. Consider social/economic impacts

- Expand the use of MSEs to determine social/economic impacts
- Evaluate the impacts of current measures on recreational participation and satisfaction
- Expand the use of multi-year management approaches
- Evaluate the impacts of management on fishing businesses


## Ecosystem: Support the ecologically sustainable utilization of living marine resources in a manner that maintains ecosystem productivity, structure, and function.

## 12. EAFM Implementation

- Track EAFM implementation progress
- Use the structured framework process as a tool to implement EAFM
- Collaborate with science partners to address ecosystem information needs


## 13. Climate change

- Identify climate-related data needs
- Consider management and governance responses to shifting species distributions
- Evaluate ability of current management approaches to respond to shifting species distributions
- Consider management strategies that are responsive to the impacts of climate change on fishery allocations


## 16. Forage

- Consider the role of Council-managed species in the ecosystem
- Consider and account for the impacts of Council-managed species on the forage base
- Monitor unmanaged forage landings


## 14. Habitat

- Identify the contributions of inshore habitats to offshore productivity
- Review EFH designations
- Participate in regional habitat partnerships
- Develop the linkages between habitat science/conservation and fishery outcomes
- Ensure that Council habitat policies reflect current scientific information and best management practices
- Examine the use of EFH/HAPCs to ensure ecosystem integrity


## 17. Ecosystem impacts

- Incorporate information from the SOE reports to identify impacts of Council decisions on the ecosystem
- Consider measures that promote fewer regulatory discards and greater utilization of catch
- Avoid/reduce negative impacts on protected resources

Governance: Ensure that the Council's practices accurately represent and consider the interests of fisheries, fishing communities, and the public through a transparent and inclusive decisionmaking process.

## 18. Open, accessible process

- Develop/update policies for Council committees and advisory/technical bodies.
- Provide annual updates on Council activities
- Review/update SOPP on a regular basis
- Provide webinars whenever possible


## 19. Collaboration with management partners

- Review/update regional operating agreement
- Clarify roles, responsibilities, procedures with ASMFC for joint meetings/actions
- Develop agreements with NEFMC and SAFMC
- Review composition/operation of Council committees to address management partner concerns


## 20. Stakeholder interests

- Create new opportunities for general public comment during meetings
- Add opportunities for public comment on implementation plans
- Evaluate the composition of advisory bodies
- Improve communication regarding the use of public input in management decisions


## 21. Member and staff training and

 development- Provide opportunities for Council member training
- Support staff development
- Promote staff-to-staff collaboration with management partners


## Managed Fisheries

Summer Flounder, Scup, Black Sea Bass • Mackerel, Squid, Butterfish Surfclams and Ocean Quahogs •Golden and Blueline Tilefish

Bluefish • Spiny Dogfish • Monkfish

Mid-Atlantic Fishery Management Council • 800 North State Street, Suite 201, Dover, DE 19901•(302)674-2331•contact@mafmc.org•www.mafmc.org

## 2020 Proposed Actions and Deliverables

End-of-Year Updates
The table below provides an update on the status of proposed actions and deliverables from the Council's 2020 Implementation Plan. This document reflects the expected status of each item by the end of 2020 (tasks may be marked as "Completed" if they will be addressed at the December meetings).

- Completed: The task is expected to be completed by the end of 2020. Amendments, frameworks, and specifications are considered "Completed" once the Council has taken final action.
- In Progress: The task is on track, and work will carry over into the following year.
- Ongoing: The task is part of the Council's routine activities and does not have an expected end point.
- Delayed or Postponed: The original timeline has shifted.
(A) before an item signifies that it is an addition to the deliverables originally approved for 2020

| Deliverable | Expected status by <br> end of 2020 | Notes |
| :--- | :--- | :--- |
| Summer Flounder, Scup, Black Sea Bass |  |  |
| Review 2021 specifications for summer flounder, <br> scup, and black sea bass | Completed |  |
| Develop and approve 2021 recreational <br> management measures for summer flounder, scup, <br> and black sea bass | Completed | Planned for December meeting. |
| Develop advisory panel fishery performance <br> reports | Completed |  |
| Initiate action to revise recreational management <br> system for summer flounder, scup, and black sea <br> bass to allow for greater stability and flexibility <br> ("Recreational Reform Initiative") | In Progress | Framework and amendment |
| initiated at October meeting. |  |  |
| Evaluate commercial scup discards and gear <br> restricted areas | Completed | Final action expected in 2021. |
| Continue development of Summer Flounder, Scup, <br> Black Sea Bass Commercial/ Recreational <br> Allocation Amendment | In Progress | Completed | | Final action expected in December. |
| :--- |
| Amendment submission to NMFS |
| Continue development of Black Sea Bass <br> Commercial State Allocation Amendment |
| Initiate Ecosystem Approach to Fisheries <br> Management (EAFM) management strategy <br> evaluation (MSE) for summer flounder |
| (A) Complete summer flounder <br> commercial/recreational allocation study <br> (contract) |
| In Progress |


| Deliverable | Expected status by end of 2020 | Notes |
| :---: | :---: | :---: |
| (A) Complete summer flounder recreational Fbased management study (contract) | Completed |  |
| Bluefish |  |  |
| Review 2021 bluefish specifications | Completed |  |
| Develop and approve 2021 bluefish recreational management measures | Completed | Planned for December meeting. |
| Develop advisory panel fishery performance report | Completed |  |
| Continue development of Bluefish Allocation and Rebuilding Amendment | In Progress | Final action expected in 2021. |
| Golden and Blueline Tilefish |  |  |
| Develop and approve 2021-2022 golden tilefish specifications | Completed |  |
| Review 2021 blueline tilefish specifications | Completed |  |
| Develop advisory panel fishery performance reports | Completed |  |
| Address private recreational permitting and reporting issues (NOAA Fisheries Greater Atlantic Fisheries Regional Office (GARFO) lead) | Completed | Outreach conducted throughout the year to support implementation of permitting and reporting requirements. Funding provided for eFin Logbook app development. |
| Tilefish survey | In Progress | Survey complete. Report expected in 2021. |
| Mackerel, Squid, Butterfish (MSB) |  |  |
| Develop and approve 2021-2022 specifications for Atlantic mackerel and butterfish | Completed |  |
| Develop and approve 2021-2023 specifications for longfin and IIlex squids | Completed |  |
| Develop advisory panel fishery performance reports | Completed |  |
| Review butterfish cap performance report | Completed |  |
| Take final action on Illex Permit and MSB Goals and Objectives Amendment | Completed | Amendment submission to NMFS expected in early 2021. |
| Review recommendations of Illex Working Group regarding real time Illex squid management and/or quota adjustments | Completed | Work extended in to 2021. |
| Illex growth and maturity data project | Completed |  |
| Review 2020-2021 chub mackerel specifications | Completed |  |
| HMS/chub mackerel diet study (final report) | Delayed due to COVID-19 |  |


| Deliverable | Expected status by end of 2020 | Notes |
| :---: | :---: | :---: |
| River Herring and Shad (RH/S) |  |  |
| Develop and approve RH/S cap for Atlantic mackerel fishery for 2021-2022 | Completed |  |
| Develop RH/S discussion papers (e.g. biological caps, New England alignment, hotspots) | Completed | Council will review at February 2021 meeting. |
| Spiny Dogfish |  |  |
| Revise 2021 and develop 2022 spiny dogfish specifications | Completed |  |
| Develop advisory panel fishery performance report | Completed |  |
| Surfclam and Ocean Quahog |  |  |
| Develop and approve 2021-2026 specifications for surfclam and ocean quahog | Completed |  |
| Develop advisory panel fishery performance reports | Completed |  |
| Initiate Commingling/Discarding Issues Action | In Progress | Initiation complete; project is in progress. |
| Surfclam genetic study (contract; ongoing) | In Progress |  |
| Science and Research |  |  |
| Initiate a workshop to review and consider redevelopment of the Research Set-Aside (RSA) program | Postponed | The RSC agreed to postpone the workshop due to COVID-19. Staff continues to work with the RSC chair on development. |
| Continue to support the Fishery Dependent Data Initiative (GARFO lead) | Ongoing | Monthly calls with GARFO on eVTR implementation. |
| Identify new Scientific and Statistical Committee (SSC) membership | Completed |  |
| Convene joint Council-SSC meeting | Completed |  |
| Maryland Recreational Ocean Effort Video Estimation project (contract) | In Progress | Video capture in progress since Wave 4 (installation delayed by COVID-19). |
| Develop a process to track progress toward addressing the Council's research priorities. | Completed |  |
| (A) Complete additional analysis needed to complete Omnibus Risk Policy Framework | Completed |  |
| (A) Establish SSC Economic Work Group | Completed |  |
| Ecosystem and Ocean Planning/Habitat |  |  |
| Coordinate Northeast Regional Habitat Assessment (NRHA) | Ongoing |  |
| Continue work on Essential Fish Habitat (EFH) Redo | Ongoing |  |


| Deliverable | Expected status by <br> end of 2020 | Notes |
| :--- | :--- | :--- |
| Update the EAFM risk assessment | Completed |  |
| Develop habitat- and fishery-related comments on <br> offshore energy development | Completed/ <br> Ongoing | Several letters sent on habitat and <br> wind issues. |
| Maintain joint MAFMC and New England Fishery <br> Management Council (NEFMC) Offshore Wind web <br> page and Offshore Wind Notices to Mariners web <br> page | Ongoing | Additional page for "Offshore Wind <br> Public Comment Opportunities" <br> page created |
| Initiate climate change and distribution shift <br> scenario planning | Ongoing |  |
| General | Completed |  |
| Complete the Commercial Fisheries Electronic <br> Vessel Trip Report (eVTR) Framework | Ongoing |  |
| Track relevant fisheries legislation, including <br> Magnuson-Stevens Act reauthorization, and <br> develop comments as requested | Completed |  |
| (A) Review commercial landings of unmanaged <br> species | Completed |  |
| (A) Develop recommendations as required by EO <br> 13921 | Completed | www.mafmc.org/evtr |
| Communication and Outreach | Oostponed | Moved to 2021 to align with 3 year <br> appointment cycle for all APs. |
| Continue to implement the Council communication <br> and outreach plan | Ongoing | Completed |


| Deliverable | Expected status by end of 2020 | Notes |
| :---: | :---: | :---: |
| Possible Additions <br> The following items were included in the 2020 Implem allowed: | mentation Plan to be | considered if time and resources |
| Expand summer flounder recreational management strategy evaluation to include scup and black sea bass (contract) |  |  |
| Review red crab and lobster fishery exemptions for discrete deep sea coral protected zones |  |  |
| Develop a white paper on fixed/variable costs and employment information (all Northeast fisheries) |  |  |
| Initiate action to address right whale issues |  |  |
| Modify list of ecosystem component species from Unmanaged Forage Amendment (e.g., addition of cancer crabs) |  |  |
| Review RH/S annual progress update |  |  |
| Convene a workshop to discuss the impacts of pollutants on Mid-Atlantic fisheries |  |  |
| Review eVTR submission timeframe |  |  |
| Aquaculture (address as needed) |  |  |

## 2021 Implementation Plan <br> DRAFT - December 2020 Council Meeting

This Implementation Plan is a companion document to the Council's 2020-2024 Strategic Plan. The 2020-2024 Strategic Plan identifies five goals, 21 objectives, and 87 strategies. Implementation of the strategic plan will be a long-term process supported through the annual development of one-year implementation plans that identify specific tasks necessary for achieving the Council's goals and objectives. Annual implementation plans are used as a planning tool by the Council and staff and as a way to update the public on progress toward achieving the goals and objectives of the strategic plan. Each year's plan is designed to provide a comprehensive and realistic framework for merging the Council's ongoing projects with new initiatives.

The 2021 Implementation Plan identifies specific activities the Council expects to undertake in 2021 to make progress toward achieving the goals and objectives of the 2020-2024 Strategic Plan. The document is organized into two sections:

1. The $\mathbf{2 0 2 1}$ Proposed Actions and Deliverables section provides a high-level overview of the activities, amendments, frameworks, specifications, and other projects the Council expects to initiate, continue, or complete during the year. This section is organized by Fishery Management Plan (FMP) and topic areas.
2. The Strategic Plan Framework and $\mathbf{2 0 2 1}$ Priority Activities section organizes the Council's planned activities for the upcoming year under the five goal areas and 21 objectives defined in the 2020-2024 Strategic Plan. This section provides information about the anticipated timeframe for each item.

## STRATEGIC PLAN OVERVIEW

## Vision

Healthy marine ecosystems and thriving, sustainable fisheries and fishing communities that provide the greatest overall benefit to the nation.

## Mission

The Council manages fisheries in federal waters of the Mid-Atlantic region for their long-term sustainability and productivity consistent with the national standards of the Magnuson-Stevens Fishery Conservation and Management Act. The Council is committed to the stewardship of these fisheries, and associated ecosystems and fishing communities, through the collaborative development of effective, science-based fishery management plans and policies.

## Core Values

The Council's activities, operations, and decisions are guided by the following core values:
$>$ Stewardship
$>$ Integrity
> Effectiveness
$>$ Fairness
> Competence
> Transparency
The complete 2020-2024 Strategic Plan and other related documents are available at www.mafmc.ora/strategic-plan.

## 2021 Proposed Actions and Deliverables

SUMMER FLOUNDER, SCUP, BLACK SEA BASS

1. Develop 2022-2023 specifications for summer flounder, scup, and black sea bass
2. Develop 2022 recreational management measures for summer flounder, scup, and black sea bass
3. Review and potentially revise commercial minimum mesh size regulations and exemptions for summer flounder, scup, and black sea bass
4. Develop advisory panel fishery performance reports
5. Continue development of a framework action and technical guidance documents to address the prioritized Recreational Reform Initiative topics.
6. Begin development of an amendment to consider recreational sector separation and recreational catch accounting for summer flounder, scup, black sea bass, and bluefish.
7. Evaluate commercial scup discards and gear restricted areas
8. Complete the Summer Flounder, Scup, and Black Sea Bass Commercial/Recreational Allocation Amendment
9. Continue development of the Ecosystem Approach to Fisheries Management (EAFM) management strategy evaluation (MSE) for summer flounder
10. Support management track assessments for summer flounder, scup, and black sea bass

## BLUEFISH

11. Develop 2022-2023 bluefish specifications
12. Develop 2022 bluefish recreational management measures
13. Develop advisory panel fishery performance report
14. Complete the Bluefish Allocation and Rebuilding Amendment
15. Support management track assessment for bluefish

Note: Deliverables \#5 and 6 in the previous section will also address bluefish recreational management issues

GOLDEN AND BLUELINE TILEFISH
16. Review 2022 golden tilefish specifications
17. Develop 2022-2023 blueline tilefish specifications
18. Develop advisory panel fishery performance reports
19. Review performance of private recreational tilefish permitting and reporting
20. Support management track assessment for golden tilefish
21. Initiate golden tilefish multi-year specifications framework (EO 13921 recommendation)
22. Review 2020 tilefish survey report and consider funding/logistics for 2022 survey

MACKEREL, SQUID, BUTTERFISH (MSB)
23. Review 2022 Atlantic mackerel, chub mackerel, longfin, and butterfish specifications
24. Develop 2022 Illex specifications
25. Consider modifications to the Illex incidental possession limit during closures (EO 13921 recommendation)
26. Consider modifications to the butterfish minimum mesh size regulations (EO 13921 recommendation)
27. Develop advisory panel fishery performance reports
28. Review butterfish cap performance report
29. Review HMS/chub mackerel diet study final report
30. Support management track assessment for Atlantic mackerel
31. Support research track assessments for butterfish and IIlex squid (including possible additional Illex working group products)

RIVER HERRING AND SHAD (RH/S)
32. Review RH/S cap performance and RH/S update

## SPINY DOGFISH

33. Review 2022 spiny dogfish specifications
34. Develop advisory panel fishery performance report
35. Develop spiny dogfish trip limit white paper (EO 13921 recommendation)

## SURFCLAM AND OCEAN QUAHOG

36. Review 2022 specifications for surfclam and ocean quahog
37. Develop advisory panel fishery performance reports
38. Continue work on an action to address issues with surfclam and ocean quahog species separation requirements
39. Review surfclam genetic study final report

## SCIENCE AND RESEARCH

40. Convene a workshop to review and consider redevelopment of the research set-aside (RSA) program
41. Conduct a biennial review and update of the 2020-2024 research priorities document
42. Convene a joint Council/SSC meeting
43. Review outcomes and recommendations from SSC Economic Workgroup
44. Support the Fishery Dependent Data Initiative (GARFO lead)

ECOSYSTEM AND OCEAN PLANNING/HABITAT
45. Develop and review the 2021 EAFM risk assessment report
46. Coordinate the Northeast Regional Habitat Assessment (NRHA)
47. Continue work on the Essential Fish Habitat (EFH) Redo
48. Maintain joint MAFMC and New England Fishery Management Council (NEFMC) offshore wind web pages
49. Develop habitat- and fishery-related comments on offshore energy development
50. Continue development of East Coast climate change and distribution shift scenario planning initiative

GENERAL
51. Review commercial landings of unmanaged species
52. Complete advisory panel reappointment for all APs
53. Develop comment letters to various agencies regarding E.O. 13921 recommendations

## COMMUNICATION AND OUTREACH

54. Continue to implement the Council communication and outreach plan
55. Develop and maintain Council action web pages
56. Develop fact sheets and outreach materials as needed
57. Establish a Communication/Outreach Advisory Panel
58. Conduct virtual or in-person workshops to support commercial eVTR implementation
59. Maintain general and issue-specific email distribution lists

## STAFF WRAP-UP ON COMPLETED ACTIONS

The following actions have been, or are expected to be, approved by the Council by the end of 2020 but will require staff work in 2021 to finalize for submission to NMFS:
60. Black Sea Bass Commercial State Allocation Amendment
61. Illex Permit and MSB Goals and Objectives Amendment

POSSIBLE ADDITIONS - OTHER
To be considered for addition to the 2021 implementation plan if time and resources allow:
62. Initiate action to implement a possession limit for frigate and bullet mackerel in the Mid-Atlantic
63. Establish a working group to evaluate potential approaches for incorporating additional stakeholder knowledge and input in the stock assessment process
64. Review red crab and lobster fishery exemptions for discrete deep sea coral protected zones
65. Initiate action to address right whale issues
66. Develop a white paper on collecting fixed/variable costs and employment information (for all Northeast fisheries)
67. Modify list of ecosystem component species from Unmanaged Forage Amendment (e.g., addition of cancer crabs)

## 2021 Priority Activities

## COMMUNICATION

Goal: Engage stakeholders and the public through education and outreach that foster sustained participation in, and awareness of, the Council process.

| Objective | Priority Activities for 2021 | Deliverable ${ }^{1}$ | Timeframe |
| :---: | :---: | :---: | :---: |
| 1. Use a wide range of communication tools and methods tailored to engage target audiences. | Continue to employ a variety of traditional, web-based, and social media tools to disseminate relevant information, updates, and communication materials (as outlined in the Council's communication and outreach plan). | Y | Ongoing |
|  | Complete website updates and improvements. | N | 2021 |
|  | Expand the use of "interested-parties" email lists to deliver fishery- and action-specific information and updates to interested stakeholders. | Y | Ongoing |
| 2. Increase stakeholder participation in the Council process. | Establish a Communication/Outreach Advisory Panel. | Y | 2021 |
|  | Evaluate the current online commenting system and identify potential new public comment opportunities (or ways to improve the utility of existing comment forms). | N | 2021 |
|  | Utilize webinars, conference lines, and other technology to expand remote access to and/or participation in Council and advisory body meetings. | N | Ongoing |
|  | Continue to adapt Council webinar technology and procedures to support the increased need for virtual meetings due to COVID-19. | N | 2021 |
|  | Develop outreach materials to facilitate constructive stakeholder input on proposed management actions (e.g. scoping guides, video presentations, fact sheets, etc.). | Y | Ongoing |
| 3. Broaden the public's understanding and awareness of the Council and its managed fisheries. | Develop fact sheets and outreach materials to provide information on current fisheries issues and topics of public interest. | Y | Ongoing |
|  | Continue to promote relevant educational opportunities. | N | Ongoing |
|  | Collaborate with science partners to develop outreach materials related to stock assessments for Council-managed species. | N | Ongoing |
|  | Ensure that Council documents use plain language and minimize the use of acronyms to the extent possible. | N | Ongoing |

[^1]
## SCIENCE

Goal: Ensure that the Council's management decisions are based on timely and accurate scientific information and methods.

| Objective | Priority Activities for 2021 | Deliverable | Timeframe |
| :---: | :---: | :---: | :---: |
| 4. Collaborate with science partners and research institutions to ensure that the Council's science priorities are addressed. | Support stock assessments for Council-managed species. | Y | 2021 |
|  | Review the surfclam genetic study final report. | Y | 2021 |
|  | Review the HMS/chub mackerel diet study final report. | Y | 2021 |
| 5. Support the use of collaborative research to meet the Council's science, data, and information needs. | Review 2020 tilefish survey report and consider funding/logistics for 2022 survey. | Y | 2021 |
|  | Convene RSA program review workshop. | Y | 2021 |
|  | Identify research needs that can be addressed using collaborative approaches with commercial, for-hire, and recreational fishery participants. | N | Ongoing |
|  | Continue to support development of cooperative research programs that use "vessels of opportunity" from all sectors to address science and research needs. | N | Ongoing |
| 6. Promote efficient and accurate data collection, monitoring, and reporting systems. | Continue to support the Fishery Dependent Data Initiative (GARFO lead). | Y | 2021 - TBD |
|  | Review performance of private recreational tilefish permitting and reporting. | Y | 2021 |
|  | Conduct virtual or in-person workshops to support commercial eVTR implementation. | Y | 2021 |
| 7. Promote the collection of relevant social and economic data and on-thewater observations. | Collaborate with the Northeast Regional Coordinating Council (NRCC) Stock Assessment Communications Group to facilitate increased stakeholder involvement in (and awareness of) the stock assessment process. | N | Ongoing |
|  | Review outcomes and recommendations from SSC Economic Workgroup. | Y | 2021 |
|  | Engage the Council's SSC to identify existing studies or other sources of social and economic information that could be used to inform management decisions. | N | Ongoing |
| 8. Identify and prioritize the Council's research needs. | Conduct a biennial review and update of the 20202024 research priorities document. | Y | 2021 |

## MANAGEMENT

Goal: Develop effective management strategies that provide for sustainable fisheries and healthy marine ecosystems while considering the needs of fishing communities and other resource users.

| Objective | Priority Activities for 2021 | Deliverable | Timeframe |
| :--- | :--- | :---: | :---: |
| 9. Strengthen state, <br> federal, and interstate <br> partnerships to promote <br> coordinated, efficient <br> management of fishery <br> resources. | Participate on the Northeast Regional <br> Coordinating Council. | N | Ongoing |
| 10. Adapt management <br> approaches and priorities <br> to address emerging <br> issues and changing <br> fishery conditions. | Review commercial minimum mesh size review <br> for summer flounder, scup, and black sea bass. | Develop Recreational Reform Framework and <br> technical guidance documents. | Y |
| Begin development of Recreational Sector <br> Separation and Catch Accounting Amendment. | Y | 2021 |  |
| Summer Flounder, Scup, and Black Sea Bass <br> Recreational/Commercial Allocation <br> Amendment (joint MAFMC/ASMFC action) | Y | Y | 2021 - TBD |
|  | Evaluate commercial scup discards and gear <br> restricted areas. | Y | 2021 |
|  | Complete the Bluefish Allocation and Rebuilding <br> Amendment (joint MAFMC/ASMFC action) | Y | 2021 |
|  | Action to address surfclam and ocean quahog <br> species separation requirements | Y | 2021 - TBD |
|  | Consider modifications to Illex incidental <br> possession limit during closures. | Y | 2021 |
| Consider modifications to butterfish minimum <br> mesh size regulations. | Y | 2021 |  |
| 11. Ensure that <br> management decisions <br> consider social, economic, <br> and community impacts <br> and opportunities. | Continue development of summer flounder <br> EAFM management strategy evaluation. | Continue to utilize multi-year management <br> approaches. | Y |
| Develop spiny dogfish trip limit white paper. | Y | 2021 |  |

Continued on the following page

Specification-Setting Activities

In addition to the activities associated with specific management objectives, the Council will also develop new or review existing specifications for each of its managed species. These activities are listed below.

|  | - $2022-2023$ summer flounder, scup, and black sea bass specifications |
| :--- | :--- |
|  | - 2022 summer flounder, scup, and black sea bass recreational management |
| measures |  |

## ECOSYSTEM

Goal: Support the ecologically sustainable utilization of living marine resources in a manner that maintains ecosystem productivity, structure, and function.

| Objective | Priority Activities for 2021 | Deliverable | Timeframe |
| :---: | :---: | :---: | :---: |
| 12. Implement the Council's Ecosystem Approach to Fisheries Management (EAFM) as described in the EAFM Guidance Document. | Develop and review the 2021 EAFM risk assessment report. | Y | 2021 |
| 13. Collaborate with management partners to develop ecosystem approaches that are responsive to the impacts of climate change. | Continue development of the East Coast climate change and distribution shift scenario planning initiative. | Y | 2021 |
| 14. Identify, designate, and protect habitat using an ecosystem approach. | Northeast Regional Marine Fish Habitat Assessment Project | Y | 2021-2022 |
|  | EFH Redo | Y | Ongoing |
| 15. Engage in the offshore energy development process to address impacts to Council-managed species and associated habitats. | Develop habitat- and fishery-related comments on offshore energy development. | Y | Ongoing |
|  | Maintain joint MAFMC-NEFMC Offshore Wind web page and Offshore Wind Notices to Mariners web page. | Y | Ongoing |
|  | Engage offshore wind developers to support effective communication and outreach with the fishing industry. | Y | Ongoing |
| 16. Support the maintenance of an adequate forage base to ensure ecosystem productivity, structure, and function. | Consider and account for, to the extent practicable, the role of Council-managed species in the ecosystem, including roles as prey, predator, and food for humans. | N | Ongoing |
|  | Consider and account for, to the extent practicable, the impact of Council-managed fisheries on the forage base. | N | Ongoing |
|  | Review report on unmanaged species landings and respond to changes if necessary. | Y | Annually |
| 17. Develop management approaches that minimize adverse ecosystem impacts. | Review State of the Ecosystem Report | N | Annually |
|  | Develop management measures that consider ecological interactions to reduce regulatory discards, promote greater utilization of catch, and minimize impacts to habitat. | N | Ongoing |
|  | Consider fishery management approaches that avoid or reduce negative impacts on protected resources. | N | Ongoing |

## GOVERNANCE

Goal: Ensure that the Council's practices accurately represent and consider the interests of fisheries, fishing communities, and the public through a transparent and inclusive decision-making process.

| Objective | Priority Activities for 2021 | Deliverable | Timeframe |
| :---: | :---: | :---: | :---: |
| 18. Maintain an open, accessible, and clearly defined process. | Convene joint Council-SSC meeting. | $Y$ | 2021 |
|  | Provide an update on Council activities and a summary of implementation Plan progress. | N | Annually |
|  | Provide conference lines or Webinar access to Council and advisory body meetings whenever feasible. | N | Ongoing |
| 19. Engage management partners to promote effective collaboration and coordination. | Track relevant MSA/fisheries legislation and develop comments as requested. | N | Ongoing |
|  | Review the composition and operation of Council committees. | N | Annually |
|  | Collaborate with GARFO on outreach to support commercial eVTR implementation. | Y | 2021 |
| 20. Ensure that stakeholder interests are understood and addressed. | Work with advisory panels to develop annual fishery performance reports | Y | Annually |
|  | Complete the 3-year reappointment process for all Council Advisory Panels. | Y | 2021 |
|  | Explore options to improve communication regarding the use of public input in management decisions. | N | 2021 |
| 21. Provide training and development opportunities for Council members and staff to enhance organizational performance. | Provide Council member training on Robert's Rules of Order. | N | 2021 |
|  | Support the ongoing professional development of Council staff. | $N$ | Ongoing |
|  | Continue to participate in staff-to-staff meetings and collaborate with GARFO, NEFSC, and ASMFC on other initiatives. | N | Ongoing |

## 2021 Deliverables - Supplemental Project Descriptions

The table below provides descriptions for some of the projects and activities included in the 2021 Implementation Plan. Descriptions and timelines are subject to change. Item numbers in the far-left column are associated with the deliverable numbers in the Proposed Actions and Deliverables section of the implementation plan.

|  | Action/Project | Staff | Description |
| :---: | :---: | :---: | :---: |
| 3 | Commercial minimum mesh size review for summer flounder, scup, and black sea bass | Dancy, <br> Beaty, <br> Coutré | In 2018, the Council and Board reviewed results of a study on minimum mesh size effectiveness for these three species. The Monitoring Committee recommended additional analyses and industry input before considering modifications, and the Council and Board recommended continuing to pursue this issue as a lower-tier priority at the time given other ongoing actions for this FMP. Current regulations require three different minimum mesh size regulations for summer flounder, scup, and black sea bass, which are targeted by an overlapping group of vessels fishing in similar areas. Industry members have requested analysis of a uniform mesh size for these three species. This review would build on the previous research and consider revisions to the commercial minimum mesh sizes and exemptions for summer flounder, scup, and black sea bass. |
| 5 | Recreational Reform Framework and Technical Guidance Documents | Beaty | In October 2020, the Council and Board initiated a joint framework/addendum to further develop and consider the following topics and management issues for summer flounder, scup, black sea bass, and bluefish: <br> - Better incorporating MRIP uncertainty into the management process; <br> - Guidelines for maintaining status quo recreational management measures (i.e., bag, size, and season limits) from one year to the next; <br> - A process for setting multi-year recreational management measures; <br> - Changes to the timing of the recommendation for federal waters recreational management measures; and <br> - A proposal put forward by six recreational organizations called a harvest control rule. <br> During their December 2020 joint meeting, the Council and Board may consider addressing some of these topics through a technical guidance document, rather than a framework/addendum. All topics will be developed throughout 2021 with the help of a technical team of Monitoring/Technical Committee members and others as needed. <br> https://www.mafmc.org/actions/recreational-reform-initiative |
| 6 | Recreational Sector Separation and Catch Accounting Amendment | Beaty | This joint amendment with the ASMFC considers options for managing for-hire recreational fisheries separately from other recreational fishing modes and will also consider options related to recreational catch accounting such as private angler reporting and enhanced vessel trip report requirements for for-hire vessels. This amendment will address all four jointly managed |


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|  |  |  | recreational species (i.e., summer flounder, scup, black sea bass, and bluefish). It is expected that scoping hearings will take place in spring 2021. <br> https://www.mafmc.org/actions/recreational-reform-initiative |
| 7 | Scup discards and gear restricted areas (GRA) review | Coutré | In recent years, scup discards in the commercial trawl fishery have been well above average, including record breaking high discards in 2017. This review will summarize trends in scup discards, evaluate the effectiveness of gear restricted areas, and consider options to address this issue. |
| 8 | Summer Flounder, Scup, Black Sea Bass Commercial/Recreational Allocation Amendment | Dancy, Beaty, Coutré | This joint MAFMC/ASMFC amendment will reevaluate and potentially revise the commercial and recreational sector allocations for summer flounder, scup, and black sea bass. This action was initiated in part to address the allocation-related impacts of the revised recreational data from MRIP. The Council and Board expect to approve a public hearing document during the December 2020 Council Meeting. Public hearings are expected to occur in early 2021 and amendment development is expected to be completed in 2021. http://www.mafmc.org/actions/sfsbsb-allocation-amendment |
| 9 | Ecosystem Approach to Fisheries Management (EAFM) management strategy evaluation for summer flounder | Muffley | In 2020, the Council initiated the development of a management strategy evaluation (MSE) to identify and evaluate the biological and management implications of alternative strategies to minimize recreational summer flounder discards. The recreational discards MSE, the third step in the EAFM decision framework, will involve extensive science, management, and stakeholder engagement. Simulation model(s) development and testing and a series of stakeholder and management workshops identifying and evaluating objectives and performance metrics are anticipated activities in 2021. |
| 14 | Bluefish Allocation and Rebuilding Amendment | Seeley | This joint MAFMC/ASMFC amendment considers potential revisions to the allocation of Atlantic bluefish between the commercial and recreational fisheries and the commercial allocations to the states. This action will also review the goals and objectives of the bluefish FMP and the quota transfer processes and establish a rebuilding plan for bluefish. The Council and Board will approve a public hearing document in February and will hold public hearings in early Spring 2021. Final action is anticipated in the summer of 2021. http://www.mafmc.org/actions/bluefish-allocationamendment |
| 16 | Golden Tilefish Multi-Year Specifications Framework | Monta ñez | The Council will consider initiating a framework to allow specifications to be set for more than 3 years (e.g. 5 years) when assessment data support the development of longer-term projections. increase administrative efficiency and predictability from year to year. This action was included in the Council's response to Executive Order 13921 to reduce the burden on domestic fisheries. |


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| 19 | Private Recreational Tilefish Permitting and Reporting Performance Review | Seeley | Private recreational tilefish permitting and reporting was implemented in August 2020. The Council will continue to review the performance and progress leading up to the next specification cycle and assessment. Council staff remains in contact with GARFO (lead) on all outreach developments. |
| 25 | Illex Incidental Possession Limit During Closures | Didden | When setting Illex specifications for 2022, the Council will consider increasing the Illex incidental possession limit for vessels possessing a certain amount of longfin squid (e.g. 10,000 lbs) after the Illex fishery closes. This action could reduce regulatory discards by allowing vessels targeting longfin squid to land Illex bycatch instead of discarding it. This action was included in the Council's response to Executive Order 13921 to reduce the burden on domestic fisheries. |
| 26 | Butterfish Minimum Mesh Size | Didden | During the 2022 specification setting process, the Council will consider increasing the amount of butterfish that can be landed by vessels using smaller than 3 -inch mesh (the current limit is 5,000 lbs). This action could alleviate some regulatory discards and allow opportunistic landing of butterfish bycatch during squid trips. This action was included in the Council's response to Executive Order 13921 to reduce the burden on domestic fisheries. |
| 29 | HMS/chub mackerel diet study | Beaty | In 2018, the Council funded Walt Golet (UMaine/GMRI) and three co-PIs to assess the diets of highly migratory species caught in recreational and commercial fisheries off New Jersey through South Carolina. This is intended to address a data gap identified through the Chub Mackerel Amendment. A final report is expected in the summer of 2021. |
| 35 | Spiny Dogfish Trip Limit White Paper | Didden | The spiny dogfish fishery currently has a federal trip limit of 6,000 lbs. There are conflicting opinions among industry participants about whether the trip limit should be increased, eliminated, or remain at $6,000 \mathrm{lbs}$. Some fishery participants have advocated for the trip limit to be increased to allow for full utilization of the quota and development of a large-scale fishery. Other participants have claimed that increasing the federal trip limit would have adverse economic and social impacts and could lead to management issues if the quota is reduced in future years. Additional analysis could help the Council better understand the potential social and economic impacts and management concerns associated with possible adjustments to the federal trip limit. Staff would develop a white paper on the potential impacts of changing the federal spiny dogfish trip limit. This action was included in the Council's response to Executive Order 13921 to reduce the burden on domestic fisheries. |
| 38 | Surfclam and Ocean Quahog Species Separation Requirements | Coakley | As surfclams have shifted toward deeper water in recent years, catches including both surfclams and ocean quahogs have become more common. Current regulations do not allow surfclams and ocean quahogs to be landed on the same trip or be mixed in the same tagged cages. The Council is exploring options to address this issue. |


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| 39 | Surfclam genetic study | Coakley | This study, contracted with Cornell University, will document the distributions of Spisula solidissima similis and Spisula solidissima solidissima in the nearshore waters of the US Northwest Atlantic. |
| 40 | Research Set-Aside (RSA) program review workshop | Seeley | The Research Steering Committee will initiate a workshop to discuss re-development of the MidAtlantic RSA program. A workshop is anticipated to take place in 2021. |
| 41 | 2020-2024 research priorities document biennial review | Muffley | As outlined in the 2020-2024 Research Priorities document, a comprehensive biennial review of all Council research priorities will occur in 2021. Feedback and input from all APs, Monitoring Committees, NEFSC staff, and the SSC on existing and new priorities will take place throughout the year. A review of Council-funded projects and an evaluation of all species-specific priorities will occur to track progress and implementation of the document. |
| 42 | Joint Council-SSC meeting | Muffley | The Council will convene a joint meeting with its SSC during one of its regularly scheduled meetings. The goal of the joint meeting is to provide an opportunity for Council and SSC members to meet and interact, have an open discussion on a variety of Council priorities and topics of mutual interest. |
| 43 | SSC Economic Work Group | Muffley | The SSC Economic Work Group will provide periodic check-ins with the Council throughout 2021 for feedback and direction on the development and implementation of the management priority case study. The case study will highlight the process for input and potential economic products and information the Work Group could provide to the Council in the future. |
| 44 | Fishery Dependent Data Initiative (FDDI) (GARFO lead) | n/a | The FDDI is an ongoing GARFO/NEFSC initiative intended to modernize fishery dependent data collection programs that will result in: (1) The development of a modernized data system capable of supporting current and future data collection needs; (2) automated integration of multiple fisheries dependent data sets that will result in a single comprehensive fisheries dependent data set; and (3) consolidation of industry reporting requirements that will minimize the number of systems needed to fulfil reporting requirements while also eliminating redundancy wherever possible. |
| 45 | 2021 EAFM risk assessment report | Muffley | The Council completed the first EAFM risk assessment in 2017. The risk assessment is updated annually to provide the Council with a synopsis of ecosystem considerations of highest priority and greatest risk to meeting Council management objectives. Staff from the NEFSC and Council will review and update the risk levels for the different risk elements in 2021 using updated stock assessment information, new data analyses, and any other appropriate and relevant information available. The updated risk assessment will be provided to the SSC in March and the Council in April in conjunction with the 2021 State of the Ecosystem Report. |


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| 46 | Northeast Regional Habitat <br> Assessment (NRHA) | Coakley | The NRHA is a collaborative effort to describe and characterize estuarine, coastal, and offshore fish <br> habitat distribution, abundance, and quality in the Northeast. Work associated with the NRHA <br> began in 2019 and is expected to continue through July 2022. The project is being led by a Steering <br> Committee composed of leadership from the major habitat conservation, restoration, and science <br> organizations in the region. Council staff serves as the overall project coordinator and inshore team <br> co-lead. http://www.mafmc.org/nrha |
| 47 | Essential Fish Habitat (EFH) <br> Redo | Coakley | Once improved habitat science products are available from NRHA, the Council can consider an <br> action to complete this review and update/revise its essential fish habitat descriptions. |
| 48 | Offshore wind web pages | Beaty/Sabo | The Council maintains three webpages and an email list to communicate updates on offshore wind <br> energy development with interested stakeholders. The webpages are maintained jointly with the <br> New England Fishery Management Council (NEFMC) and NOAA Fisheries: |
| 50 | Climate change and <br> distribution shift scenario <br> planning | Dancy | http://www.mafmc.org/northeast-offshore-wind |
| http://www.mafmc.org/offshore-wind-notices |  |  |  |


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|  |  |  | training opportunities using eVTR software before the implementation deadline. <br> https://www.mafmc.org/commercial-evtr |

MID-ATLANTIC

# MEMORANDUM 

Date: $\quad$ December 4, 2020
To: $\quad$ Chris Moore, Executive Director
From: Julia Beaty and Jason Didden, staff
Subject: Potential Action to Implement Commercial Possession Limit for Bullet and Frigate Mackerel

## Introduction

During their December 2020 meeting, the Mid-Atlantic Fishery Management Council (MAFMC) plans to approve an Implementation Plan for 2021. They will consider including "initiation of an action to implement a possession limit for frigate and bullet mackerel in the Mid-Atlantic" on their list of deliverables for 2021.

To assist with this discussion, this memo provides additional background information on the MAFMC's Unmanaged Forage Omnibus Amendment (Forage Amendment), the South Atlantic Fishery Management Council's (SAMFC's) Dolphin Wahoo Amendment 12, and summarizes available data on co-occurrence of bullet and frigate mackerel (Auxis rochei and A. thazard) and MAFMC-managed species in commercial catch and landings in the northeast. As described in more detail below, the dealer and observer data show an association between these two species and bluefish, and to a lesser extent, longfin squid.
Staff recommend that the Council develop options for a commercial possession limit of bullet and frigate mackerel in Mid-Atlantic federal waters through a framework adjustment to the Bluefish Fishery Management Plan (FMP).
As described below, this action could build off the Forage Amendment; however, the justification for the action would need to differ from the justification provided in the Forage Amendment to avoid the potential for disapproval on the same grounds as the previous disapproval.
During development of the Forage Amendment and the SAFMC’s Dolphin Wahoo Amendment 12, NMFS stated that bullet and frigate mackerel may be best managed as a "stock in need of conservation and management" (see pages 5-6 of this document) rather than an ecosystem component. This would require and FMP amendment, or creation of a new FMP, as opposed to a framework action. The appropriate type of management action should be considered when the MAFMC discusses their 2021 priorities. A new FMP or an FMP amendment to manage bullet and frigate mackerel as stocks in need of conservation and management would be a much more complicated action than a framework to add them as ecosystem components to one or more FMPs.

## MAFMC's Unmanaged Forage Omnibus Amendment

Through the Unmanaged Forage Omnibus Amendment, the MAFMC adopted a 1,700 pound commercial possession limit which applies to aggregate harvest of over 50 previously unmanaged forage species. These species are now designated as "ecosystem components" (ECs) in all the MAFMC's FMPs. The MAFMC sought to include bullet mackerel and frigate mackerel on this list of ecosystem components in recognition of their role as prey for a variety of predators. However, NMFS disapproved inclusion of these two species in the amendment.

In a letter dated June 19, 2017, ${ }^{1}$ the GARFO Regional Administrator explained this partial disapproval of the amendment, stating that "the classification of bullet and frigate mackerel as forage for species managed by the Council and EC species is not based on the best available scientific information and is, therefore, inconsistent with National Standard 2 of the MagnusonStevens Fishery Conservation and Management Act." The letter explained that bullet and frigate mackerel did not meet the definition of forage species used in the Forage Amendment, namely due to their size and trophic level. Additionally, available information does not suggest that they are an important component of the diet of MAFMC-managed species. Further, the letter stated, the analysis provided in the amendment of co-occurrence of these species and MAMFCmanaged species in commercial fisheries catch shows "co-occurrence that is not necessarily indicative of systemic bycatch in those fisheries...With no dealer reported landings of bullet mackerel, and an average of $7,500 \mathrm{lb}$ of frigate mackerel reportedly landed each year, there is limited information to support that these species will be subject to commercial exploitation at this time."

Lastly, GARFO stated that bullet and frigate mackerel do not appear to meet the criteria for ecosystem components outlined in the National Standard Guidelines at 50 CFR 600.305 (summarized on pages 5-6 of this document), namely because the data suggest that "these species are caught and sold by commercial vessels and retained for personal use as bait by recreational fisheries in Federal waters, creating competing interests and conflicts among user groups, both of which are criteria that could exclude consideration of bullet and frigate mackerel as EC species."
GARFO suggested that "[i]f the Council believes that these species need conservation and management, a small tuna FMP or a broader ecosystem based management action may be a more effective vehicle to manage these species than an amendment predicated on protecting forage for managed species."

## SAFMC's Dolphin Wahoo Amendment

In March 2018, the MAMFC sent a letter to the SAFMC requesting that the SAMFC consider adding bullet and frigate mackerel as ecosystem components in their Dolphin Wahoo FMP in recognition of their role as prey for wahoo. In response, the SAFMC held scoping hearings to gauge public interest and subsequently developed Amendment 12 to the Dolphin Wahoo FMP. ${ }^{2}$ They took final action in September 2020, voting to add bullet and frigate mackerel to the FMP as ecosystem components without associated management measures. The ecosystem component designation emphasizes the importance of these species as prey for a variety of predators in the South Atlantic and provides an avenue to address future management issues which may arise.

The SAFMC initially considered implementing management measures such as a commercial possession limit but did not further pursue this option based on guidance from NMFS and

[^2]consideration of the potential implications of such measures. Specifically, the SAMFC did not consider a commercial possession limit for bullet and frigate mackerel as EC species because NMFS advised that such a possession limit could only apply in the South Atlantic and only to vessels with Dolphin Wahoo permits. This would not be expected to provide any meaningful protections for bullet and frigate mackerel as most commercial catch occurs in gears that are not authorized under the Dolphin Wahoo FMP. ${ }^{3}$

As described in more detail below, NMFS expressed concern about the potential use of commercial possession limits for bullet and frigate and mackerel, and especially the use of possession limits which would apply beyond the South Atlantic, because the ecosystem component species designation presumes that the stocks are not "in need of conservation and management."

In a document dated February 7, 2020, ${ }^{4}$ NMFS explained that "the current Secretarial designation of the South Atlantic Council as the lead for the dolphin and wahoo fishery is not going to automatically extend to EC species subsequently added to the plan. Absent some Secretarial designation as the lead Council for managing the new stocks, the South Atlantic Council's authority would be limited to its geographic jurisdiction. Thus, any regulatory requirements for EC species would be geographically limited to the South Atlantic Council's jurisdiction and potentially to vessels over which the South Atlantic Council already had some jurisdiction as a condition of being permitted under the Dolphin Wahoo FMP."

In order to gain authority for a species beyond the Virginia/North Carolina border, the SAFMC would need to request a Secretarial designation. The associated provisions in the MagnusonStevens Fishery Conservation and Management Act (MSA) state that the designated Council "shall" prepare a FMP for the fishery, calling into question whether Secretarial designation could be used to gain authority over an EC species beyond the jurisdiction of a Council (see pages 5-6 of this document).

NMFS explicitly advised against requesting Secretarial designation to allow for management measures for an ecosystem component species to apply beyond the jurisdictional boundaries of a Council defined in the MSA, as this would also imply that the ecosystem component species is in need of conservation and management. ${ }^{5}$

Ultimately, the SAFMC avoided these jurisdictional issues by designating bullet and frigate mackerel as ecosystem components without associated management measures. This allowed them to designate them as ecosystem components throughout the management unit of the Dolphin Wahoo FMP (i.e., Key West, Florida through Maine).

The NMFS position regarding the use of a commercial possession limit for bullet and frigate mackerel as ecosystem components in the Dolphin Wahoo FMP is explained in a February 2020

[^3]document from NMFS, which sates, "Management measures can be specified for EC species in a Council's area of jurisdiction and for the FMP... However, commercial trip or vessel limits and recreational bag limits of the two mackerel species by dolphin wahoo permitted vessels would not likely result in substantial harvest limitations and protection for the EC species. Here, there is no indication that vessels harvesting dolphin and wahoo are the same vessels harvesting bullet mackerel and frigate mackerel. Bullet mackerel and frigate mackerel have largely been reported landed commercially using gill net, pound net, float trap, and otter trawl gear types, none of which are allowable gear in the dolphin wahoo fishery. The South Atlantic Council may be able to justify the implementation of limits as precautionary measures to reduce the potential for the rapid expansion of their harvest in the dolphin wahoo fishery. But again, there is no indication that vessels harvesting dolphin and wahoo are the same vessels harvesting bullet mackerel and frigate mackerel. In addition, there is no clear indication of a likely future increase in harvest of bullet and frigate mackerel by dolphin wahoo vessels."

The minutes from the March 3, 2020 Dolphin Wahoo Committee meeting ${ }^{6}$ further elucidate why the SAFMC decided not to pursue a commercial possession limit for bullet and frigate mackerel. During the Committee meeting it was discussed that bullet and frigate mackerel do not meet the criteria for a stock "in need of conservation and management" in the South Atlantic, as defined in the National Standards Guidelines (see pages 5-6 of this document). The NMFS General Counsel representative on the Dolphin Wahoo Committee clarified that if bullet and frigate mackerel were added as ecosystem components to the Dolphin Wahoo FMP, the SAFMC would not be "directly managing or restricting the harvest of the EC species for its own sake, because the EC species are fundamentally not in need of conservation and management." Rather, any implemented measures would "manage how the Dolphin Wahoo FMP affects EC species." He noted that this is not explicitly stated in the National Standards Guidelines or in past ecosystem component designations; however, it is a logical interpretation to prevent "crossing what seems to be a translucent line into implementing conservation and management measures."

He added that it would be challenging for the SAMFC to justify using the ecosystem component designation to place restrictions on gear types other than those authorized for use in the Dolphin and Wahoo fisheries (i.e., automatic reel, bandit gear, handline, pelagic longline, rod and reel, and spear) as doing so could imply that bullet and frigate mackerel are in need of "conservation and management" and thus should not be managed as ecosystem components.

The NMFS Southeast Regional Administrator elaborated that in order to protect bullet and frigate mackerel from the potential negative impacts of an unmanaged commercial fishery, "they ought to be managed by the Council that's in that region [where the commercial catch is occurring], and they ought to be put into the FMP, if the determination is they need management."

## Co-Occurrence with MAFMC-Managed Species in Commercial Catch Data

Council staff examined dealer and observer data from 2010-2019 to evaluate co-occurrence of bullet and frigate mackerel and MAFMC-managed species in commercial catch and landings. As described in more detail below, frigate mackerel were identified in the dealer data, but not in the observer data. Bullet mackerel were identified in both the dealer and observer data.

[^4]To ensure that unique trips were properly identified in the dealer data, a trip identifier was created by combining the federal permit number (or hull number, if available, for landings without an associated federal permit number), year, month, and day.

## Frigate Mackerel

A total of 13,220 pounds of frigate mackerel landings during 2010-2019 were identified in the dealer data. For those landings that could be associated with a unique trip, $74 \%$ occurred on trips where bluefish accounted for most of the landings by weight. Most of these landings used either fixed/anchored gill net, or pound net.

No frigate mackerel catch was identified in the observer data for 2010-2019.

## Bullet Mackerel

Much smaller amounts of bullet mackerel landings were found in the dealer data for 2010-2019. There was also a strong connection to bluefish trips. Additional details cannot be provided due to data confidentiality concerns.
About 400 pounds of bullet mackerel catch are included in the observer data for 2010-2019. About 73\% of this catch (in weight) was associated with trips where the captain reported that the primary target species was either longfin squid or bluefish.

## Predators of Bullet and Frigate Mackerel

If the MAFMC wishes to implement a commercial possession limit for bullet and frigate mackerel in the Mid-Atlantic through a framework action or amendment, a connection must be established between these species and the FMP species or fisheries. It is not expected that such a connection will be established on the basis of diet.
An updated review of the scientific literature and available data on the role of bullet and frigate mackerel in the diets of MAFMC-managed species has not been performed since development of the Forage Amendment. An analysis of the Northeast Fisheries Science Center’s Food Habits database completed for the Forage Amendment did not reveal bullet or frigate mackerel as prey for any MAMFC-managed species; however, spiny dogfish, monkfish, and summer flounder were identified as predators of "mackerels" (MAFMC 2017).
As noted in the SAFMC's Dolphin Wahoo Amendment 12: "Recent research on forage ecology of large pelagic fish in the U.S. South Atlantic have shown that bullet mackerel and frigate mackerel are key prey for species such as wahoo (Acanthocybium solandri), blue marlin (Makaira nigricans), and yellowfin tuna (Thunnus albacares) (Rudershausen et al. 2010, Poland et al. 2019). Bullet mackerel and frigate mackerel have also been noted to a lesser extent in the diets of dolphin (Coryphaena hippurus) (Rudershausen et al. 2010, Poland, 2014)."

## Ecosystem Component Definition

Ecosystem components are defined in the National Standards Guidelines as "stocks that a Council...has determined do not require conservation and management, but desire to list in an FMP in order to achieve ecosystem management objectives" (50 CFR 600.305(d)(13)). The National Standards Guidelines state that, "stocks that are predominately caught in Federal waters and are overfished or subject to overfishing, or likely to become overfished or subject to overfishing, are considered to require conservation and management." Beyond such stocks, the following nonexhaustive list of factors should be considered when deciding whether a stock requires conservation and management (50 CFR 600.305(c)).
i. The stock is an important component of the marine environment.
ii. The stock is caught by the fishery.
iii. Whether an FMP can improve or maintain the condition of the stock.
iv. The stock is a target of a fishery.
v. The stock is important to commercial, recreational, or subsistence users.
vi. The fishery is important to the Nation or to the regional economy.
vii. The need to resolve competing interests and conflicts among user groups and whether an FMP can further that resolution.
viii. The economic condition of a fishery and whether an FMP can produce more efficient utilization.
ix. The needs of a developing fishery, and whether an FMP can foster orderly growth.
x . The extent to which the fishery is already adequately managed by states, by state/Federal programs, or by Federal regulations pursuant to other FMPs or international commissions, or by industry self-regulation, consistent with the requirements of the Magnuson-Stevens Act and other applicable law.
If a stock does not meet these criteria, a Council may designate it as an ecosystem component. The ecosystem component designation implies no regulatory action; however, the National Standards Guidelines state that, "management measures can be adopted in order to, for example, collect data on the EC species, minimize bycatch or bycatch mortality of EC species, protect the associated role of EC species in the ecosystem, and/or to address other ecosystem issues" (50 CFR 600.305(c)(5)).

The MSA requires that Councils prepare FMPs for stocks in need of conservation and management and list several required elements of those FMPs, including an acceptable biological catch limits, annual catch limits, accountability measures, status determination criteria, and essential fish habitat. These are not required of ecosystem components.

## References

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Poland, S. J. 2014. Trophic Dynamics of Pelagic Fishes in the U.S. South Atlantic Inferred from Diet and Stable Isotope Analysis. Thesis submitted to the University of North Carolina Wilmington, Department of Biology and Marine Biology.

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SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL
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Melvin Bell, Chair | Stephen J. Poland, Vice Chair
John Carmichael, Executive Director

December 3, 2020
Dr. Chris Moore, Executive Director
Mid-Atlantic Fishery Management Council
800 North State Street, Suite 201
Dover, DE 19901

Dear Dr. Moore:
On behalf of the South Atlantic Fishery Management Council, I would like to inform you that Amendment 12 to the Fishery Management Plan for the Dolphin Wahoo Fishery of the Atlantic (FMP) has been submitted to the National Marine Fisheries Service for review and implementation. This amendment will add bullet mackerel (Auxis rochei) and frigate mackerel (Auxis thazard) to the FMP and designate them as ecosystem component species.

The amendment was initiated in response to a previous request from the Mid-Atlantic Fishery Management Council and we have appreciated working with your staff and Mid-Atlantic Council liaisons in developing the amendment. We look forward to working with the MidAtlantic Council in the future. If you would like any additional information, please do not hesitate to contact me.

Sincerely,


Executive Director

LN\#202062
Enclosures
cc: SAFMC Members and Staff
Monica Smit-Brunello, NOAA GC
Tony DiLernia and Dewey Hemilright, MAFMC

# MEMORANDUM 

Date: $\quad$ December 1, 2020<br>To: Council<br>From: Brandon Muffley, staff<br>Subject: SSC Economic Work Group: Case Study Proposals

## Background:

At the August 2020 meeting, the Mid-Atlantic Fishery Management Council (Council) supported the formation of an Economic Work Group of its Scientific and Statistical Committee (SSC) in an effort to provide timely economic direction and information to the Council. While supporting the SSC Economic Work Group, the Council requested additional details on the types of topics and potential products that could be developed by the Work Group.

At the October 2020 joint Council-SSC meeting, the Economic Work Group presented a proposal on how best to utilize the expertise on the Work Group to provide meaningful input to Council actions and deliberations. The Work Group outlined an approach to develop 2-3 proposals, one of which could be developed over the course of 2021 as a case study. The case study would be designed to illustrate the value of focused economic analyses for future actions by the Council. In addition, the case study approach would begin a process(es) for continued future engagement and communication between the Council and the SSC on important economic topics.

The Economic Work Group used the draft 2021 Implementation Plan to identify possible case study proposals to ensure they provide relevant information that aligns with Council priorities and needs. The Work Group reviewed all 59 proposed actions and deliverables (Actions under "Possible Additions" were not considered) and used a number of different metrics to rank the proposed actions/deliverables in order to identify case studies for further development. The Work Group considered the utility and relevance of Work Group engagement to the Council, the value added to the action by Work Group engagement, the overall feasibility for the Work Group to commit and carry out any identified work, and the anticipated timetable for action/deliverable completion.

Once the 2021 proposed actions and deliverables were ranked, the Work Group discussed the merits and considerations of the top 6-7 priorities. After extensive discussion, the Work Group agreed to develop four case studies, three of which the Work Group ultimately agreed to provide for Council consideration. Details on each case study proposal are provided behind Tab 3 of the

December Briefing Book and a short overview of each case study can be found in the tables below. The three case study proposals are as follows:

1. Research Set Aside Program Review and Redevelopment Workshop (Table 1)
2. River Herring/Shad Catch Cap Performance Review (Table 2)
3. White Paper on the Economic Impacts of Changing the Federal Spiny Dogfish Trip Limits (Table 3)

The Work Group also strongly considered the Recreational Reform Initiative with a focus on the sector separation issue. Ultimately, however, the Work Group felt this action has greater potential for collaboration and advice from several scientific disciplines of SSC membership. This topic will be on the March 2021 SSC meeting agenda for discussion and feedback. Recommendations will be provided to the Council at a future meeting.

At this meeting, the Council will receive an overview from the Economic Work Group on each of the three case study proposals. The Council will then select one of the three case studies for development and implementation by the Work Group in 2021. Periodic updates on the status of the case study will be provided to the full SSC and Council throughout 2021.

Table 1. Case study overview of expected benefits from and feasibility of work outlined for the Research Set Aside Program Review and Redevelopment Workshop.

| Council Relevance | Value-added by SSC Economic Work Group | Feasibility | Completion |
| :---: | :---: | :---: | :---: |
|  | High | Moderate - High | End of 2021 |
| RSA program has not been active since 2014. However, this could be an effective way to facilitate regional research. | Noncompliance in RSA quota usage reporting led to the suspension of this program. Research projects were not historically well aligned with assessment and management needs. Economic incentives underlying participation and compliance drive these issues. | 1. Both optimal market design and unintended management incentives can be addressed theoretically. <br> 2. Value of information (i.e. which fisheries to implement the RSA in) could be explicitly assessed through appropriate design - (e.g., marginal willingness to pay for commercial/recreational sectors), while maximizing revenues for research. | Workshop will be completed in 2021; however, unclear whether Council will move further than a workshop at this point. |

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Table 2. Case study overview of expected benefits from and feasibility of work outlined for the River Herring/Shad Catch Cap Performance Review.

| Council Relevance | Value-added by SSC Economic Work Group | Feasibility | Completion |
| :---: | :---: | :---: | :---: |
|  | High | Moderate - High | October 2021 |
| 1. Recent fishery closures triggered by binding catch caps. | 1. Annual catch cap unlikely to fully incentivize bycatch avoidance. <br> 2. Low observer coverage generates questions regarding estimated bycatch rates. | 1. Comparison of alternate management strategies employed in similar circumstances should be valuable. <br> 2. Comparison of observer vs. port sampling (and Port Agents | Intermediate product, and additional work could be needed to implement recommendations, if the Council decided to pursue. |
| 2. Atlantic Mackerel is overfished, and subject to overfishing. | 3. Mixed fishery between Atlantic Mackerel and Atlantic Herring, creating potential for unintended consequences due to interplay between management actions. | vs. At-sea Observers) benefits \& costs possible. <br> 3. Behavioral response to recent cap/quota changes and closures can be assessed for potential unintended consequences of management. |  |

Table 3. Case study overview of expected benefits from and feasibility of work outlined for the Development of a White Paper on the Economic Impacts of Changing the Federal Spiny Dogfish Trip Limits.

| Council <br> Relevance | Value-added by SSC Economic Work Group | Feasibility | Completion |
| :---: | :---: | :---: | :---: |
|  | Medium | Moderate | October 2021 |
| Addresses E.O. 13921 and a topic the Council(s) and ASMFC have discussed and received input on in the past. | Economic distributional concerns driving the discussion, with some stakeholders arguing for an industrial fishery to be allowed, while others wary of the potential impact on prices which might occur due to trip limit increases. MSC Certification could impact trade-offs across limits. | 1. Theoretical assessment of trade-offs relatively straightforward. <br> 2. Some variability in historical federal and state trip limits exists, which should help empirically assess the price impact of shifting trip limits. | Intermediate product with completion of white paper in 2021. Additional work could be needed to implement recommendations, if the Council decided to pursue. |

# Scientific and Statistical Committee Economic Work Group 

## Proposed 2021 Priority:

Research Set Aside Program Review and Redevelopment

## Priority Description

The Mid-Atlantic Council's Research Steering Committee is planning to conduct a workshop to discuss redevelopment of the Mid-Atlantic Research Set-Aside (RSA) program. The workshop is anticipated to take place sometime in 2021. This pre-proposal describes how the Economic Work Group (WG) may contribute to this effort. The end purpose is to bring concrete recommendations and points of discussion to the workshop to make the RSA program more effective and efficient.

## Background

The Mid-Atlantic Council created the RSA program through Framework Adjustment 1 to the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan (FMP), Atlantic Mackerel, Squid, and Butterfish FMP, Bluefish FMP, and Tilefish FMP. The first research projects funded under this program began in 2002 and the program continued annually until 2014. Over the course of its history, the RSA Program funded 41 research projects at a total cost of $\$ 16,321,643$. Noncompliance with RSA quota usage reporting requirements, limited benefit and application of RSA research projects, and lack of faith in the auctions conducted by the National Fisheries Institute (NFI) to allocate RSA quota ultimately led to the stoppage of the program. Indeed, evidence from the RSA criminal investigation revealed that significant quantities of fish, particularly summer flounder, were taken illegally under the cover of RSA quota. As an example, an enforcement briefing to the Council in June 2014 on enforcement activities in the State of New York, noted that the known illegal harvest of summer flounder exceeded 50\% of the state's annual quota allocation. Thus, one of the key conclusions of the evaluation of the program was that monitoring and enforcement capacity in both state and federal agencies was inadequate to verify all RSA landings and ensure full accountability and transparency.

As for the RSA quota auction process, it was complex to administer. From 2002-2014 the RSA quota was allocated in lots of different sizes through sequential English auctions conducted by NFI over a single day. In each of these sequential auctions the price started low and was progressively increased as buyers bid for the item until one buyer was left willing to pay a certain amount and a higher bid wasn't received during the given time period. The initial price per pound was set at a rough guess of the quota profitability. Two different sets of auctions were conducted, one set for the commercial sector and one for the for-hire sector. A requisite for vessels to participate in the auctions was for them to join NFI at an annual cost of $\$ 500$ per vessel (reduced to $\$ 250$ in 2014). Additionally, NFI charged $12 \%$ of the proceeds of the auctions to run and administer the program. Each vessel owner could submit a single bid in each auction, though there were cases in which a single bidder could represent up to two vessels. Notably, after the RSA quota was allocated through the series of auctions, vessels were able to trade that quota with other vessels later in the season.

Each of the vessels awarded quota through the auctions received a special permit to harvest the quota under the exemptions specified by the NMFS Regional Administrator. NFI was in charge of administering the permitting of the RSA vessels. Importantly, the exemptions associated with the RSA quota focused primarily on effort controls and season extensions, e.g., the ability to harvest after the season had closed,
and the ability to continue harvesting after trip possession limits had been reached. These exemptions were critical in determining the value to fishermen of the RSA quota (why pay for that quota otherwise?).

## Benefit of Economic Work Group Engagement

The benefits of the Economic Work Group engagement would come from a better understanding of the incentives that drive the success of each of the key components of the RSA program, as detailed next:

## 1. Selecting candidate fisheries and research projects to be funded

A previous review of the RSA program identified the need to increase the input of the SSC in the development of research priorities, review of individual project proposals, and the peer review process of projects completed under the RSA Program. This recommendation is certainly as relevant for the redevelopment of the program as it was in 2014 when the program was suspended. However, there are other important considerations regarding the choice of both the fisheries in which research projects will be undertaken and the way the fundraising to support those projects is to be conducted.

For example, what fisheries should be given priority in implementing research projects? How do factors such as stock assessment model uncertainty (i.e., larger OFL CV) and the likelihood of a constraining $A B C$ help to identify fisheries where the biggest economic gains from investment in science are expected? Likewise, the original RSA program tended to decouple the harvest of the RSA quota from the actual research that resulted from the NFI auction process. In other words, vessels that were awarded RSA quota through the auctions were typically not involved in conducting the research projects funded with the revenue from those auctions (unlike, for example, the scallop RSA program, which actively engages industry in the data collection efforts). To what extent is this decoupling efficient from a revenue generating standpoint? What are the possible drawbacks of this decoupling, in terms of compliance incentives? Is the number of vessels in the fishery (i.e., a proxy for the number of potential bidders) relevant when choosing what RSA quota to sell?

## 2. Maximizing Funding available for the Research Projects

As indicated in the background section above, the original RSA auction process was complex, as it involved many quota lots, different species, different fishing sectors, multiple participants (over 100 vessels in 2014), issuance of new permits, quota trading post-auction, etc. Importantly, there are alternative approaches to this type of auction for allocating the RSA quota which might raise more money for research. The Economic Work Group will explore these alternatives by addressing questions such as: Is collusion a real concern with the open English auctions originally used, as was indicated by participants? Would a seal-bid multiple-lot auction raise more funds than those sequential open auctions? Should the RSA quota be allocated between commercial and for-hire sectors prior to running separate auctions, or should all vessels be allowed to bid in each auction regardless of sector? How should the reserve (minimum) price be determined? Are there better alternatives than a fee per vessel to pay for administration of the program (i.e., competitive auctions generate higher revenue and therefore participation should be encouraged rather than discourage with entry fees)? What would be the benefits (if any) of adopting to a posted-price offer per quota lot rather than an auction? What are the exemptions that (achieving the same conservation objectives) would maximize revenue for the RSA program?

Moreover, beyond revenue generation, there may be other considerations when deciding how to sell the quota. For example, the information generated by fishermen's bidding behavior in an auction reflect their willingness to pay for the quota, which in turn is given by the vessels' profitability. Thus, a time series of auction bids may allow the Council to learn about how well the industry is pursuing a given fishery. However, the usefulness of that information will depend on the auction format used.
3. Enforcing and monitoring the RSA quota

Compliance with RSA quota reporting requirements is critical for the success of the program. The Economic Work Group will study the incentives for noncompliance associated with the different exemptions attached to RSA quota, and explore alternative measures to ensure compliance (e.g., hailin and hail-out, observers, VTR). Moreover, the Work Group will look at the trade-offs between measures that improve enforcement and monitoring and the costs of the program for participants (with the ensuing reduction in revenues generated by the program).

## Work Group Engagement Process

The MAFMC is currently planning a workshop with different stakeholders to explore the redevelopment of the RSA program. This Economic Work Group proposal would look to provide workshop participants with recommendations to consider when redesigning the program, such as those mentioned above. As such, the Work-group work would coordinate with Council Staff to ensure that the economic considerations on revenue maximization and compliance with the RSA program requirements are provided to stakeholders in a timely fashion.

The interaction of the Economic Work Group and the MAFMC will follow the currently scheduled workflow between technical staff and MAFMC, as outlined below (note: the timing and tasks are draft and may change):

## December 2020

-Council selects Case Study for development

## January 2021

-Workgroup coordinates with Council Staff to understand the format and information/input requirements of the workshop

## March 2021

-Economic Work-Group report to SSC

## April-July 2021

-Participate in webinar(s) and get feedback from Research Steering Committee

## August-September 2021

-Report on progress and workshop development presented to Council
-Report on Economic Working Goup progress and activites presented to SSC

## October-November 2021

- Help Council staff provide background information and material for RSA workshop
-Participate in RSA workshop


## December 2021

-Presentation to Council on case-study findings and outcomes

## Anticipated Products

The main product will be a report with recommendations 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: i) selection of fishery and research projects, ii) allocation of RSA quota and revenue generation, and iii) enforcement and monitoring. Importantly, the report will highlight the link across these three components, as driven by researchers' objectives and fishermen's incentives.

Although the scope of work outlined above seems great, in reality economic theory can guide much of this work without substantial empirical analysis, as auctions are extremely well studied markets.

## Case Study Performance Metrics:

Ultimately, the most valuable measure of success for this case study would be the adoption of scientific advice forthcoming and continued engagement of the SSC Economic Work Group by the MAFMC. However, we envision some other performance metrics would be useful in understanding the value of the RSA case study, if selected. In particular, if the Council decides to redevelop/redesign the program as a result of the upcoming workshop, we anticipate the following metrics of performance.

First, the program will track the number of research projects funded annually, the number of those projects that are carried out to completion, and whether the results of those projects are used to inform concrete policy. Second, the program design will make sure to track average revenue per pound of RSA quota allocated through the program, as well as total revenue from the program available to fund research projects. Third, the redeveloped program will track RSA quota usage, number and volume of quota trades, number of violations, etc. The end objective is to guarantee an effective, efficient, and responsive RSA program.

# Scientific and Statistical Committee Economic Work Group 

## Proposed 2021 Priority:

## Review River Herring/Shad cap performance and River Herring/Shad update

## Background

The River Herring/Shad (RH/S) catch cap in the Atlantic Mackerel fishery was adopted as 129 MT for 2021-2022. This is based off historical catch rates and scaled to the current quota. Unlike the Atlantic Herring fishery's constant cap for River Herring, the intent of a catch cap linked to quota changes is to incentivize the minimization of bycatch at all levels of Mackerel quota. Between 2005 - 2018, $50 \%$ of all $\mathrm{RH} / \mathrm{S}$ was caught by midwater trawl, with $40 \%$ coming from smallmesh bottom trawl, and the remainder from other bottom trawlers or gillnets. The RH/S bycatch rate is estimated off of NEFOP observed trips, with the previous year's bycatch rate used at least partly until > 5 observed trips in the current year are available to estimate a more relevant rate. Given low historic NEFOP coverage in the midwater trawl fisheries, there has been discussion of using portside monitoring to estimate bycatch rates, with the primary obstacle of this alternative being non-representativeness of portside monitoring for the mackerel fleet more broadly.

## Benefit of Economic Work Group Engagement

The major question with respect to the catch cap is how best to incentivize bycatch minimization. The American Economic Association defines economics as "...the study of how people use resources and respond to incentives ${ }^{1}$." As such, the issues surrounding a catch cap can benefit from additional economic insight and analysis. There are three main areas in which the economic work group could contribute to understanding the RH/S cap performance.

First is the general question as to whether an annual catch cap adequately incentivizes bycatch avoidance when compared to other management tools available. The Bering Sea pollock fishery parallels the Mackerel/RH/S complex somewhat, with culturally important Chinook and Chum salmon representing low ratio bycatch for pollock. Managers employ incentive plan agreements, which couples rolling hot spot closures with rewards for individual operators who decrease bycatch and penalties for those who do not, to develop individual accountability with respect to bycatch reductions (Fisheries of the Exclusive Economic Zone Off Alaska; Bycatch Management in the Bering Sea Pollock Fishery, 81 Fed. Reg. 37534 (June 10, 2016).). Other management entities face similar challenges, and a review of the performance of alternative management measures, and the expected differences in individual incentives to avoid RH/S under these alternate measures, would be beneficial.

Second, given the low observer coverage on mackerel trips, there are lingering concerns regarding the use of this data for estimating the RH/S bycatch rate. Although portside sampling data exists and could be used, current portside sampling protocols do not adequately represent the spatial/temporal heterogeneity of the Mackerel fishery. An economic assessment of the relative benefits and costs of alternate data streams with respect to the Mackerel fishery could provide value. Specifically, what would an incremental investment in portside monitoring or at-sea observer cost, and how much additional benefit regarding actionable information for management would be provided?

Third, given that the RH/S cap in the Atlantic Herring developed by the New England Fishery Management Council interplays with the RH/S cap developed by the Mid-Atlantic Fishery Management Council for Atlantic Mackerel, an assessment of potential unintended consequences that could be induced by this interplay would be of interest. The midwater trawl fishery is often a mixed fishery for Mackerel and Herring. The setting of the cap recognizes this mix, with the outcome being a single trip can contribute towards both catch caps simultaneously. This mixing suggests that there is potential that fishermen's behavioral responses to these management measures differ from what was originally envisioned. As a concrete example, the 2019 Fishery Performance Report for Mackerel indicates that the low RH/S catch cap in the Mackerel fishery interplayed with the low Atlantic Herring quota in Area 2 to induce a race to fish. This race to fish increased fishing over the January - February period in which river herring/shad bycatch was

[^5]high, leading to River Herring/Shad cap overages in both the Atlantic Herring Southern New England and Atlantic Mackerel components of the fishery. An analysis of how fishermen responded to the incentives induced by the catch caps, as well as to closures of the Atlantic Mackerel fishery in recent years could elucidate the potential for these types of unintended consequences, and should inform the understanding of catch cap performance.

## Work Group Engagement Process

The MAFMC is currently developing white papers on the alignment of mackerel \& herring shad caps, a spatial analysis of Mackerel fishing and RH/S bycatch, and how to consider survey indices instead of only historical catches and the Mackerel quota. This Economic Work Group proposal would look to bolster, and not replace, these ongoing initiatives. As such, the Work Group work would coordinate with Council Staff to ensure that the economic implications of changes which might be informed by the white papers currently in development could clearly be detailed. Further, the findings of the white papers will be integrated into the envisioned discussion of incentives, costs and benefits, and unintended consequences which would be core to the Economic Work Group's proposed case study.

The interaction of the Economic Work Group and the MAFMC will follow the currently scheduled workflow between technical staff and Council, as outlined below.

## December 2020

- Council selects Case Study for development


## January 2021

- Work Group coordinates with Council Staff to understand 3 RH/S White Paper conclusions


## February 2021

-White papers delivered to Council by Staff

## March 2021

- Economic Work Group report to SSC


## April - May 2021

-Economic Work Group provides update and gets input from SMB Advisory Panel
(Note: this would be part of the "typical" fishery performance report process)

- SMB Committee Meeting Update
- Report on progress to and feedback from full SSC


## June 2021

- Economic Work Group report on progress to Council


## August - September 2021

- Preliminary Findings presented to SMB Committe and AP for feedback and input
- Economic Work Group report preliminary findings to full SSC


## October 2021

- Economic Work Group presentation of findings to Council


## Anticipated Products

The following specific deliverables are anticipated as part of the RH/S case study:

1. A review of management measures currently utilized to incentivize bycatch avoidance both nationally and internationally, and a theoretical comparison of best practices with the current RH/S catch cap methodology.
2. An assessment of relative cost and benefits of portside monitoring vs. observer data streams for use in catch cap accounting.
3. A study of the trigger for and fishermen's response to the Mackerel fishery closure due to the $\mathrm{RH} / \mathrm{S}$ catch cap, with an eye specifically towards unintended consequences of management.
4. An integrated interpretation of catch cap performance given deliverables $1-3$, other standard analyses historically developed as part of the review, and the three white papers under development. Of particular interest will be the interplay between monitoring and incentivization of bycatch avoidance, and the outline of a process by which any meaningful findings could be fully integrated into management.

The specified process by which findings could be adopted by the Council will necessarily depend on the findings themselves. If only small tweaks to the current catch cap approach are proposed, then a framework adjustment or specifications package might suffice. However, if more substantial changes to accountability measures and/or management instruments are proposed the action may necessitate an Amendment to the FMP. In this light, the case study can be viewed as an intermediate product, along the lines of a white paper, and additional work could be needed to fully implement any recommendations, if the Council decided to pursue a novel course of action.

## Case Study Performance Metrics

Ultimately, the most valuable measure of success for this case study would be the adoption of scientific advice forthcoming and continued engagement of the SSC Economic Work Group by the MAFMC. However, we envision some other performance metrics would be useful in understanding the value of the RH/S case study, if selected.

This is meant to be a transparent and collaborative process. Accordingly, we propose that at least one discussion each with the Mackerel, Squid, Butterfish and River Herring and Shad APs and Committees, and at least one discussion with the full Council prior to the delivery of the final report to the Committees and Councils as relevant metrics of transparency and collaboration.

Second, given the product is not only a synthesis of relevant analyses but also a plan for ultimate implementation of recommendations, a meaningful metric would be the feasibility of the proposed work. As such, an indication from Council Staff and relevant administrative bodies (e.g. GARFO) that the proposed plan is practicable if pursued would also measure the success of the work in a meaningful manner.

# Scientific and Statistical Committee Economic Work Group 

## Proposed 2021 Priority:

Develop a white paper analyzing the potential economic impacts of changing the federal trip limit for spiny dogfish.

## Background

The Spiny Dogfish fishery currently has a federal trip limit of 6,000 lbs. Some fishery interests have advocated for the trip limit to be increased to allow for full utilization of the quota and development of a larger-scale fishery. Some participants have advocated that increasing the federal trip limit would have adverse economic and social impacts and lead to management complications if the quota is reduced in future years. Additional analysis could help the Council better understand the potential social and economic impacts and management concerns associated with possible adjustments to, or elimination of, the federal trip limit. In the Council's 2021 Implementation Plan, staff already plans to develop a white paper on the potential impacts of changing the federal spiny dogfish trip limit, and the SSC's Economic Work Group could play a role in the development of the paper.

## Benefits of Economic Work Group Engagement

Since the current plan is for Council staff to write the white paper, a useful role of the SSC would be to prepare and identify background information and analyses as a framework for writing the paper and to provide critiques of drafts. The issues here appear mostly distributional, which means that economic analysis cannot provide an answer as to which distribution is superior. However, economic analysis can, if used carefully, elucidate the arguments put forth by the different participants as to why a policy which favors them should be chosen. Economic analysis may also be able to quantify the distribution effects, as well as highlight any potential inefficiencies induced by various management approaches.

As we think about doing this, a first question that comes to mind is: What is the purpose of the federal trip limits? Are they necessary to keep the total harvest within the quota? Preliminary discussions with staff and review of Monitoring Committee summaries indicate that the answer is no. While trip limits have shaped the characteristics of the fishery from the start of management (2000), the limits were initially employed when rebuilding began to eliminate directed fishing and spread the allowable catch over the relevant seasons. More recently, the purpose seems to have become more focused on controlling how much dogfish hits the market at one time so as to keep prices stable, as well as preserve the demand for dogfish from different regions at different times of the year when smaller vessels typically target them (e.g. summer in MA, fall in NJ, and winter in VA).

Related to these distribution issues, several points made in recent fishery performance reports include:

1. Some stakeholders state that the federal and state trip limits prevent a larger-scale industrial fishery, which would need trip limits of around 30,000 lbs to be viable, from developing. One possible suggestion from AP members was separate quotas for food-fish versus industrial uses.
2. Other stakeholders are concerned that increasing the trip limit within the time frame of the 2019-2021 fishing years, with existing limited markets, would cause the bottom to fall out of prices, early closures, and/or small boats being driven out of the fishery as large boats could fill the quota quickly. Since 2012, Spiny Dogfish has also been certified as sustainable by the Marine Stewardship Council. Although no immediate impacts on certification would be expected by changing trip limits, it is an issue to be aware of and track.

So far there has not been widespread support within the MAFMC AP for the idea to eliminate the federal trip limit and rely on the states to set trip limits to manage their state or regional quota, due to concerns regarding price effects and differences in timing during which Spiny Dogfish is available to the fishery across states. Further, some state regulations preclude landing spiny dogfish in states other than which the permitted vessel is home ported, which disadvantages certain fleet segments.

As background for writing this white paper, it will be necessary to better understand the specific suggestions for change and which groups would gain and which would lose from each of the proposals for change. Obtaining information on the range of potential increases and decreases in trip limits, and the arguments for each against the current trip limits, from all current and potential industry participants and from Council and ASMFC staff is a necessary first step. It will also be useful to ask more general open-ended questions to solicit suggestions to generally improve management of the fishery.

## Anticipated Products

The products will be the responses to the specific questions including critiques of the specific arguments put forth, as follows.

1. A theoretical analysis of trade-offs associated with the range of trip limits which are of interest to stakeholders.
2. An inventory/gap analysis of data available to support modeling.
3. Outlines of empirical analysis which could assess the impacts of trip limit (and/or quota) changes on vessels, with a particular focus on distributional changes across fleet segments.

## Process for Engagement

The Economic Work Group will arrange discussions with industry participants, and Council and ASMFC staff to obtain detailed answers to the relevant questions. The Work Group will coordinate with staff to identify the most appropriate avenue to collect this information and feedback but may include a stakeholder survey, interviews with AP members, a webinar, or
other appropriate options. It will be important to get specific responses on potential outcomes and implications on various trip limit modifications. This refers to both the suggested percentage changes in the trip limits and to the logic of what they anticipate will happen if changes are made. This will make it easier for the work-group to know exactly what is being requested and will provide a framework for responding.

## Case Study Performance Metrics

The ultimate performance metric will be the improvements in industry operation that result from suggestions in the white paper. Intermediate metrics will be the timing and amount of interaction with industry, staff, and the authors of the white paper.

## MEMORANDUM

Date: $\quad$ December 4, 2020
To: Chris Moore, Executive Director
From: Jessica Coakley and Julia Beaty, staff
Subject: Update on habitat activities

The following documents are included behind this tab:

1) GARFO Habitat and Ecosystem Services Division updates
2) Staff memo on the Responsible Offshore Science Alliance (ROSA) and other Council involvement in offshore wind energy development
3) Comment letter from Lund's Fisheries to the U.S. Coast Guard on Port Access Route Study: Seacoast of New Jersey and Approaches to Delaware Bay (NJ/DE PARS) and Anchorage Grounds in Delaware Bay

## MAFMC MEETING December 2020 GARFO Habitat and Ecosystem Services Division Updates

## Wind Energy

Vineyard Wind

- Vineyard Wind has recently asked to temporarily withdraw their Construction and Operation Plan. They selected General Electric as a preferred turbine supplier and are requesting time to conduct a final technical review. The FEIS for this project was expected to be published on December 11th. We have not yet received information from BOEM on how this may affect the project timeline.
- We received a response from BOEM to our June 27, 2019 EFH Conservation Recommendations on December 1, 2020.


## South Fork Wind Farm

- We received a draft EFH Assessment for the South Fork Project on October 13, 2020. We will be providing comments and an additional information request on December 12th.
- BOEM is planning to publish the Draft Environmental Impact Statement (DEIS) for the South Fork Project on January 8, 2021.

Additional Updates

- In addition to the two active projects (Vineyard Wind and South Fork), BOEM has an additional 8 Construction and Operation Plans (COPs) at varying stages of their completeness review. They are expecting to receive up to 5 more COPs over the next 12 months.
- BOEM has hosted interagency kick off meetings for the Skipjack (DE), Ocean Wind (NJ), and Empire Wind (NY) projects.
- We do not anticipate BOEM publishing any additional Notice of Intents to prepare an EIS until 2021.


## Offshore G\&G Activities

At previous council meetings we have provided an update on offshore geological and geophysical activities. There has been no action on offshore G\&G surveys this year.

The status of the applications can be found on BOEM's website at
https://www.boem.gov/submitted-atlantic-ocs-region-permit-requests

## Permits Under Review

Use of Air Gun Array (NMFS issued IHA)

- TGS-NOPEC Geophysical Company - Permit Number E14-001 (Use of air gun array)
- GX Technology Corp. - Permit Number E14-003 (Use of air gun array)
- CGG Services (US) Inc. - Permit Number E14-005 (Use of air gun array)
- Spectrum Geo Inc. - Permit Number E14-006 (Use of air gun array)

Use of Air Gun Array (No Current IHA)

- PGS - Permit Number E14-007 (Use of air gun array)

Other

- ABI Holdings Limited (Austin Exploration) - Permit Number E18-001 (For aerial survey)
- TDI Brooks International, Inc. - Permit Number E18-002 (Piston coring and surface heat flow measurements)
- TDI-Brooks International, Inc. - Permit Number E14-010 (Use of Hull mounted multibeam and sub-bottom sonar)

Expired Permits

- CGG Services (US) - Permit Number E19-005 (For aerial survey) Approved Permit (Expired)
- NEOS GeoSolutions Inc. - Permit Number E15-002

Approved Permit | Application for Permit

- ARKeX Limited - Permit Number E14-008

Approved Permit (Expired) | Application for Permit
Withdrawn Permits

- WesternGeco, LLC - Permit Number E14-004 (Use of air gun array)
- Spectrum Geo Inc. - Permit Number E14-009
- SeaBird Exploration Americas, Inc. - Permit Number E14-002
- GX Technology Corporation - Permit Number E15-001


From: https://www.boem.gov/sites/default/files/documents/Atlantic-Pending-Permit-Map_3.pdf

## Aquaculture Activities:

- Aquaculture Opportunity Areas Initiative- In August, NMFS announced that federal waters off of Southern California and in the Gulf of Mexico will host the first two Aquaculture Opportunity Areas (AOAs) as part of a recent initiative under the federal Executive Order on Promoting American Seafood Competitiveness and Economic Growth. The selection of these regions is the first step in a process designed to identify and complete programmatic environmental impact statements for 10 AOAs nationwide. Currently NOAA Fisheries HQ is soliciting public input on the development of AOAs, both within the initial two selected regions and nationally, via a Request for Information in the Federal Register open through 12/22/2020.
- Manna Fish Farms, Inc. is continuing to move forward on their proposal to culture black sea bass and steelhead trout for commercial sale and research in Federal waters approximately 9 miles off the shore of Long Island, New York. A pre-application meeting with federal and state agencies, NE and MA fisheries management council and Atlantic States Marine Fisheries Commission staff, NOAA staff, and the project proponent was held on September 21, 2020. General project details, proposed baseline environmental survey plans, and an alternative site analysis report produced by the NOS Coastal Aquaculture Siting and Sustainability (CASS) program were presented. During the meeting concerns about the location of the proposed fish farm in relation to sand borrow areas and potential offshore wind power transfer line areas were presented. The NOS CASS program provided these resultant maps. The Sunrise Wind Farm Cable Corridor is mapped with a 500 m . buffer per side to make it consistent with the setback NOS CASS used for all cables.


## Port Development Activities:

There are a number of large ports development projects proposed within the Mid-Atlantic including:

- Diamond State Port Corporation - Edgemoor Port Facility - A new multi-use port facility proposed at the former Chemours Edgemoor manufacturing facility on the mainstem Delaware River in New Castle County, Delaware. The project includes 87 acres of new dredging, fill, bulkheading, wharf construction, and anti-shoaling fans for the construction of a new port facility on 600 plus acres of land owned by Diamond State Port Corporation (a State owned entity). http://www.nap.usace.army.mil/Missions/Regulatory/Public-Notices/Article/2286572/2019-278/
- PSEG Hope Creek Port Facility - A new port facility on the mainstem Delaware River adjacent to the Salem Nuclear Power Plant in Lower Alloways Creek Township, Salem County, New Jersey to cater to the U.S. East Coast offshore wind industry. The project includes 86 acres of new dredging, bulkheading, wharf construction and potentially wetland fill within an existing dredged material disposal site. http://www.nap.usace.army.mil/Missions/Regulatory/Public-Notices/Article/2371503/2019-01084-39/
- New York \& New Jersey Harbor Deepening and Channel Improvements Feasibility Study's Draft Integrated Report/Environmental Assessment (Draft IFR/EA) and Draft General Conformity (GC) Determination - The US Army Corps is evaluating improvements to the navigation channels within the New York and New Jersey Harbor including deepening several channels from the existing 50 feet below mean low lower (MLLW) water to 540455 feet depending upon the location to accommodate the Ultra Large Container Vessel Class (1,308 feet long, 193.5 wide, with a draft of 52.5 feet).


## Coastal Storm Risk Management Projects

As reported in June, many of the US Army Corps Coastal Storm Risk Management Studies proposed in the region have been paused. Only the Nassau County Back Bay Study on the south shore of Long Island remains active. The scope of the project has been scaled back and no longer includes storm surge barriers along the inlets. The study is currently evaluating alternatives that include residential elevation, non-residential dry floodproofing, localized floodwalls in highly vulnerable areas and areas with critical infrastructure. Natural and nature based measures such as living shorelines, wetlands restoration, oyster reefs will also be evaluated as complementary features to the alternatives proposed.

## General Permit Renewal/Reissuance

- In September, the U.S. Army Corps of Engineers issued a federal register notice (https://www.federalregister.gov/documents/2020/09/15/2020-17116/proposal-to-reissue-and-modify-nationwide-permits) with their proposal to reissue 52 existing nationwide permits (NWPs), some of which are proposed to be modified, and five new nationwide permits. NWPs are intended to authorize activities under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899 that will result in no more than minimal individual and cumulative adverse environmental effects. Regional conditions can be added to the NWPs to provide targeted resource protections including conditions to avoid and minimize impact to EFH and other aquatic resources. Four of the five Corps Districts in GARFO use NWPs and HESD has been working with individual Corps Districts to revise and develop regional conditions for this latest version of the NWPs. Of note, two new NWPs have been proposed for aquaculture activities, one for finfish mariculture and one for seaweed mariculture to comply with the federal Executive Order on Promoting American Seafood Competitiveness and Economic Growth.
- The US Army Corps Baltimore District recently issued a public notice seeking comments on the proposed reissuance of the Maryland State Programmatic General Permit-6 (MDSPGP-6). Activities authorized by the SPGP are similar to those permitted by the NWPs, so many NWPs are not used in Maryland. Because SPGPs are developed with the state, they provide both federal and state authorization for certain activities, while NWPs only provide federal authorization. Separate state approvals are required for NWPs actions, but not SPGPs. HESD provided comments on some of the proposed modifications this past summer, but because the Corps has proposed to modify the SPGP to allow 500 sf of fill in submerged aquatic vegetation (SAV) for living shoreline projects and beach nourishment projects, additional coordination is needed. The Council has designated SAV a habitat area of particular concern for summer flounder.


# MEMORANDUM 

Date: $\quad$ December 4, 2020
To: $\quad$ Chris Moore, Executive Director
From: Julia Beaty, staff
Subject: Update on ROSA and other Council involvement in offshore wind energy development

This memo summarizes the Mid-Atlantic Fishery Management Council's (Council's) involvement in offshore wind energy development activities, with an emphasis on recent developments of the Responsible Offshore Science Alliance (ROSA).

## Involvement of Council Members in ROSA and Other Organizations

Council members participate in many organizations that are involved in offshore wind energy development. In some cases, they serve as a representative of the Mid-Atlantic Council. In other cases, they serve in other capacities. In all cases, their involvement can help the Council as a whole stay informed on offshore wind energy development. Below are some examples of organizations related to offshore wind in which Council members are involved.

## Responsible Offshore Science Alliance (ROSA)

ROSA (https://www.rosascience.org/) is an independent 501(c)(3) organization dedicated to providing for and advancing regional research and monitoring of fisheries and offshore wind interactions in federal waters through collaboration and cooperation in order to: (a) increase salient and credible data on fisheries and wind development; and (b) increase the understanding of the effects of wind energy development on fisheries and the ocean ecosystems on which they depend.

Council member Peter Hughes serves as co-chair of the ROSA board of directors in his role as RODA chair.

Many Council members sit on the ROSA Advisory Council. The role of the ROSA Advisory Council is to provide substantive direction and strategic guidance for ROSA. The ROSA Advisory Council has met twice to begin to develop the priorities for ROSA as an organization. More information is available at: https://www.rosascience.org/leadership.

Two Mid-Atlantic Council members serve on the ROSA Advisory Council as the primary member and alternate for a seat designated for the Mid-Atlantic Fishery Management Council. In their roles as Ecosystem and Ocean Planning Committee Chair and Vice Chair, Peter deFur is the primary member for the Mid-Atlantic Council and Kate Wilke is the alternate.

Two Mid-Atlantic Council members serve on the ROSA Advisory Council as representatives of the commercial fishing industry, not as representatives of the Mid-Atlantic Council (i.e., Peter Hughes and Wes Townsend).

Three Council members serve on the ROSA Advisory Council in their role as state employees (i.e., Joe Cimino for New Jersey, Ellen Bolen for Virginia, and Chris Batsavage for North Carolina).

A major next step for ROSA is to appoint Research Advisors, including subject matter experts from governmental agencies, academia, the fishing and offshore wind industries, and other organizations. Research Advisors will provide support and guidance to ROSA on scientific activities. More information and instructions for how to apply to be a Research Advisor are available at: https://www.rosascience.org/leadership. The deadline for applications is December 18, 2020.

## Responsible Offshore Development Alliance (RODA)

RODA (https://rodafisheries.org/) is a broad membership-based coalition of fishing industry associations and fishing companies with an interest in improving the compatibility of new offshore development with their businesses. It endeavors, through collaborations with NOAA Fisheries and other partners, to coordinate science and policy approaches to managing development of the Outer Continental Shelf in a way that minimizes conflicts with existing traditional and historical fishing.

Council members Dan Farnham, Dewey Hemilright, Peter Hughes, Wes Townsend, and Eric Reid are RODA members in their roles as members of the commercial fishing industry, not as Mid-Atlantic Council members. Dewey Hemilright, Peter Hughes (RODA chair), and Eric Reid (RODA treasurer) all serve on the RODA Board.

## State Offshore Wind Energy Development

Multiple states have formed their own groups related to offshore wind energy development. For example, New York state formed a Fisheries Technical Working Group (F-TWG;
https://www.nyftwg.com/) with membership including commercial fisheries representatives and offshore wind energy developers. The F-TWG provides guidance and advice on how to responsibly implement New York State's efforts to advance offshore wind energy development. A Mid-Atlantic Council staff member sits on the F-TWG.

New York State has also employed Council member Anthony DiLernia as a recreational fishing liaison. In this role, he engages with the recreational fishing community to keep them informed on offshore wind energy development and provides feedback to the state to help improve decision making. He serves in this role as a knowledgeable member of the recreational fishing community, not as a Mid-Atlantic Fishery Management Council member.

## Fisheries Liaisons for Offshore Wind Energy Development

Most offshore wind energy developers with leases in the northeast have hired fisheries liaison offices to facilitate two-way communication between the fishing community and offshore wind energy developers. A list of most fisheries liaison officers and their contact information is available here: https://www.boem.gov/atlantic-fishing-industry-communication-and-engagement.

Council member Adam Nowalsky serves as a recreational fishery liaison officer for the Atlantic Shores Wind project off New Jersey. He serves in this role as a knowledgeable member of the recreational fishing community, not as a Mid-Atlantic Fishery Management Council member.

## Council Outreach on Offshore Wind

The MAFMC maintains three webpages and an email list to communicate updates on offshore wind energy development with interested stakeholders.

The webpages are maintained jointly with the New England Fishery Management Council and NOAA Fisheries. The main webpage, http://www.mafmc.org/northeast-offshore-wind, provides general background information on offshore wind energy development in the northeast region and includes links to all Mid-Atlantic and New England Council comment letters on offshore wind energy projects.

A second webpage titled "Offshore Wind Notices to Fishermen" (http://www.mafmc.org/offshore-wind-notices) includes notices provided by offshore wind project developers regarding offshore surveys, buoy installations, and other activities that may occur in areas used by fishermen. This page is updated frequently.

The third webpage is titled "Offshore Wind Comment Opportunities" (http://www.mafmc.org/offshore-wind-comment-opportunities) and contains links to open public comment periods.

The Mid-Atlantic Council also maintains a public email list for offshore wind updates relevant to Mid-Atlantic fisheries. Anyone can subscribe using the form at http://www.mafmc.org/email-list. Updates are sent approximately once a month.

## Council Comments on Offshore Wind

The Council periodically submits comment letters to federal agencies such as the Bureau of Ocean Energy Management (BOEM) and the U.S. Coast Guard.

Recent letters include comments to BOEM on the Supplemental Environmental Impact Statement for the Vineyard Wind I project and comments to the U.S. Coast Guard on the Port Access Route Study for the Seacoast of New Jersey, including offshore approaches to the Delaware Bay.

All comment letters are posted here: https://www.mafmc.org/actions/offshore-energy.

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November 10, 2020
Captain Maureen Kallgren, Mr. Jerry Barnes
Fifth Coast Guard District
431 Crawford Street
Portsmouth, VA 23704
Via: www.regulations.gov

## Re: Port Access Route Study; Seacoast of NJ and Approaches to DE Bay (NJ/DE PARS) USCG-2020-0172 / Anchorage Grounds; DE Bay USCG-2019-0822

Dear Captain Kallgren and Mr. Barnes:
Thank you for the opportunity to provide comments on the Notice of Study (NOS) for the NJ/DE PARS, and proposed Anchorage Grounds in the vicinity of Delaware Bay. We appreciate your extending the comment period for both notices, for holding two pubic hearings on the NOS, which alerted us to the anchorage notice of inquiry (NOI) of a year ago, and for allowing our comments on the anchorages to be included in this letter in response to the route study.

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 appreciate both USCG District 5 and District 1 working together to focus these PARS, primarily, on the need for consistent long-term fishing vessel access within, and safe transit through, planned or potential offshore wind energy development along the Atlantic Coast.

As a member of the Responsible Offshore Development Alliance (RODA), and as an active member in the federal fishery management process under the jurisdictions of the Mid-Atlantic Fishery Management Council (MAFMC) and the New England Fishery Management Council (NEFMC), we would like to associate our comments with those RODA is expected to submit in response to this NOS today and with those of the MAFMC in July.

Specifically, we ask for the following to be considered in developing the study:

- The use of all available data to understand patterns of commercial fishing vessel activity in the areas proposed for development including VMS, VTR, NEFOP and AIS. These data sets must be supplemented with extensive input from the region's commercial fishing industry, including in-person meetings once they are again considered to be safe.

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- An analysis of potential fishing vessel access, safety and navigational risk using Closest Point of Approach (CPA) methodology under all weather conditions and associated with multiple layouts in each of the proposed and pending lease areas in the region.

This should include an evaluation of radar interference potential (including any risk reduction that may accrue from the use of Pulse Suppression Radar) and the establishment of designated, directional, traffic lanes to minimize costs in crew time, fuel, CO2 emissions and product quality. In particular, the northern edge of OCS-A 0498 (Ocean Wind) and the southern edge of OCS-A 0499 (Atlantic Shores) should include safety routing measures for fishing vessel transit. We do not expect to be able to operate our mobile fishing gear within these wind arrays with spacing between structures proposed of one nautical mile or less in each case and we encourage the USCG to specifically evaluate 4 nm transit corridors as proposed by RODA.

- Incorporation of the New York Bight Transit Lanes Surveys, Workshop and Outreach Summary, relative to the review of vessel routing measures for the Hudson South Call Area, which we participated in along with others in the region's commercial fishing industry. It is extremely important that these navigational safety issues lead to becoming a BOEM-mandated requirement on prospective wind developers before a lease sale occurs, not only after the fact as is the situation today.

Since your October 13 notice asked for comments on nine individual questions, we provide additional comment here:

1. What proposed routing measures would you suggest to preserve shipping safety around and within the offshore wind energy areas?

For commercial fishing, when most of us will be unable to use our gear to catch seafood within the planned wind arrays, safe, two-way traffic lanes of a minimum distance of 2 nautical miles, to safely minimize our transit times to areas where we can fish, is critical to establishing a basis for coexistence with the planned wind farm expansion of more than 2000 structures, within the areas where we and others in the Port of Cape May have operated for generations.
2. What areas within the study area have you traditionally used for anchoring and why?

Our vessels will not commonly anchor in the study area unless in an emergency situation, which needs to be considered, particularly as cable is laid in the wind farm development areas.


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3. If fully developed, how will the offshore wind energy projects in the study area impact your anchoring practices or other waterway uses?

Loss of access to the Hudson South Call Area, for Cape May vessels alone, will significantly, negatively affect scallop and squid harvesting and processing in the MidAtlantic and New England regions, for example. The effects will be cumulative as the wind footprint expands. We will be forced into a narrow ribbon of Continental Shelf, if all the proposals by States in the Mid-Atlantic and New York Bight areas are eventually built out. This makes rational, safe transit to the fishing grounds that will remain available, after inshore wind development occurs, from Cape Hatteras to Cape Cod and into the Gulf of Maine, a critical element of the potential for commercial fishing and wind development coexisting in the region, on a daily basis. The establishment of designated, directional traffic lanes will minimize costs in crew time, fuel, CO2 emissions and help maximize product quality.
4. What other navigational concerns do you have regarding the proposed wind energy projects in the study area?

During a recent DOE webinar on coastal radar used to detect currents and sea state, which we understand is a fundamental part of USCG search and rescue success, it appeared as if this technology could be seriously disturbed by the rotation of windmill blades, as currently being modeled. We encourage the Coast Guard to fully consider the potential negative effects of this problem, and encourage its continue evaluation.
5. What alternatives for mitigating anchor damage to underground cables are available, and is it possible for underground cables to coexist within the anchorages?

Underground cables, if buried deep enough, and if they stay where they should be will likely not be a problem for intermittent commercial fishing anchoring, however, if large wind-construction vessels will be using designated anchorages, as is being proposed, burial depth parameters need to be publicly negotiated. The best mitigation strategy for cables is to minimize the amount of cable used.
6. Which fisheries do you primarily target that cause you to transit or fish in the study area?

Black Sea Bass, Bluefish, Butterfish, Croaker, Chub mackerel, Herring, Illex squid, Loligo squid, Mackerel, Menhaden, Monkfish, Porgy (Scup), Sea Scallops, Skate, Summer flounder represent the majority of species harvested and processed within the Port of Cape May/Wildwood. Rational, safe transit to fishing grounds that will not be closed to us from wind construction will be crucial to our business success in the future.

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7. While fishing offshore, how much time do you spend underway, making way versus how much time do you spend underway, not making way as a percentage of the overall time frame (for example, I spend $10 \%$ of the trip transiting to and from port, $70 \%$ engaged in fishing, and $20 \%$ setting or hauling back gear)?

This varies with the fishery, the port where the trip began and the port where the landing occurs, along with the availability of the fish on any given day. A complete modeling and analysis of these questions is necessary to evaluate the impact of proposed wind energy areas on navigational safety, as recommended by the Atlantic Coast Port Access Route Study, Final Report, Docket Number USCG-2011-03251.
8. What risk control measures would you propose during the construction and operation of the wind energy areas?

This question should also extend to the period where planning for a wind energy area begins and prior to BOEM calling for proposals on future lease sales. As stated more than once, above, our analysis of the current situation with wind energy development occurring where we work and produce sustainable seafood is to plan for us to get safely, and in a rational way, to the fishing grounds where we may still be able to operate. This will require strategically-located, two-way dedicated traffic lanes of no less than two nautical miles in width, in our view.
9. Where is the predominant recreational boating traffic within the study area? Is there a time of year that traffic is more prevalent?

You will find significant recreational boat traffic occurring within the study area. Most of them do not sail in the winter months, as we do. Coast Guard will need to work with NMFS, the Councils and the States to better answer this question.

## Anchorage Grounds; DE Bay and Atlantic Ocean USCG-2019-0822

As mentioned above, we appreciate your reopening the comment period on Coast Guard's amending its regulations to establish new anchorage grounds in the Delaware Bay and Atlantic Ocean because, in part, 'traditional anchorage areas may not be available due to planned or potential offshore wind energy development'. We were not aware of this NOI being published a year ago, on November 29, and were particularly interested in the comments of Mr. Kevin Wark, a Barnegat Light, New Jersey fisherman, during the October 29 webinar, this year, relative to this notice.

Mr. Wark is a fishing captain who has worked for several years with Dr. John Madsen, at the University of Delaware, and Dr. Dewayne Fox, at Delaware State University, in tracking,

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identifying and tagging endangered Atlantic sturgeon (under the Endangered Species Act) in the Delaware Bay Region.

We have read these researchers' January 27, 2020 letter to Rear Admiral Smith concerning this proposed rulemaking, and we recommend that 'Anchorage B - Breakwater' no longer be considered as a prospective anchorage area due to its proximity to important endangered Atlantic sturgeon habitat. We ask that Coast Guard work with the National Marine Fisheries Services’ Office of Habitat Conservation to further evaluate the potential for this anchorage to negatively impact the conservation and recovery of this endangered fish throughout its range.

The January letter states that, 'although it is unlikely Atlantic sturgeon will be directly impacted (e.g. crushed during anchoring)...the process of anchoring (creates) the large-scale disruption of sediments...of concern given the key role that the lower Delaware River Estuary plays in the recovery of coastwide (sturgeon) populations."

The letter begins by saying, "Occurring in the immediate vicinity of the proposed Anchorage B, we have recently documented what is arguably the largest known aggregation of adult and subadult Atlantic sturgeon along the East Coast of North America. The aggregation is comprised of individuals that have been tagged in river systems ranging from Connecticut to Georgia and underscores the importance of the lower portion of Delaware Bay, as this region provides foraging resources for Atlantic sturgeon from a broad geographic area. In essence, any modifications to this region may dramatically impact the conservation and recovery of this imperiled species across its range.'

As an appendix to this letter, I am attaching a chart depicting the sturgeon study area being directly adjacent to the proposed Anchorage B. With two other anchorage areas being proposed in the study area (Anchorages C and D ) and with wind area construction still some months and years away, it would seem prudent to remove Anchorage B from further consideration and collaborate with NMFS toward further assessing the important fish habitat in the area.

Please do not hesitate to contact me if I can provide any additional information about our company's fishing activities within the proposed wind energy areas under the jurisdiction of the $5^{\text {th }}$ Coast Guard District. We look forward to working with you during the development of this important study.

With best regards,

## Wayne Reichle

Wayne Reichle, President
Lund’s Fisheries, Inc., 997 Ocean Drive, Cape May, NJ 08204 wreichle@lundsfish.com

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Figure 1, from Madsen and Fox, January 27, 2020. General location of Delaware Sea Grant Atlantic Sturgeon study site and proposed Anchorage B. The study site is within the gray box; Anchorage B is within the yellow polygon. The crosses shown are the locations of acoustic receiver stations used to detect the presence of tagged fish.

## MEMORANDUM

Date: $\quad$ December 3, 2020
To: Chris Moore, Executive Director
From: Karson Coutre, Staff
Subject: Scup Recreational Measures for 2021

On Tuesday, December 15, the Council and Board will consider 2021 recreational management measures for scup. Materials listed below are provided for the Council and Board’s discussion of this agenda item.

1) Summary of November 16, 2020 Monitoring Committee meeting.
2) Summary of November 10, 2020 Advisory Panel meeting.
3) Email comments from advisors and others on summer flounder, scup and/or black sea bass recreational measures received by December 2, 2020.
4) Staff memo on 2021 recreational scup measures dated November 3, 2020.

Any additional public comments received by the supplemental comment deadline of December 10, 2020 will be posted separately to the Council's meeting page.


# Summer Flounder, Scup, and Black Sea Bass Monitoring Committee (MC) November 16, 2020 Webinar Meeting Summary 

Monitoring Committee Attendees: Julia Beaty (MAFMC staff), Peter Clarke (NJ F\&W), Dustin Colson Leaning (ASMFC staff), Karson Coutré (MAFMC staff), Kiley Dancy (MAFMC staff), Lorena de la Garza (NC DMF), Steve Doctor (MD DNR), Emily Gilbert (GARFO), Alexa Kretsch Galvan (VMRC), Savannah Lewis (ASMFC staff), Rachel Sysak (NY DEC), Mark Terceiro (NEFSC), Sam Truesdell (MA DMF), Greg Wojcik (CT DEEP), Rich Wong (DE F\&W)
Additional Attendees: Richard Cody, Greg DiDomenico, Michelle Duval, James Fletcher, Tom Fote, Nichola Meserve, Matt Seeley, Mike Waine

## 2020 Recreational Data Gaps

The Monitoring Committee (MC) discussed the impact of Covid-19 on recreational data collection and the ability to generate catch estimates for 2020. As discussed in the staff memos, due to a lapse in angler intercept sampling due to Covid-19 restrictions, 2020 catch estimates from the Marine Recreational Information Program (MRIP) will not be available prior to the end of 2020.
Dr. Richard Cody (NMFS Office of Science and Technology, Fisheries Statistics Division) participated in the discussion of 2020 recreational estimates. He noted that there are significant gaps in intercept data this year, particularly for mid-March through April. NMFS is currently exploring ways that estimates could be generated for 2020, including options for imputation methods using proxy data from other time periods. This process may result in annual estimates for 2020, but these estimates are unlikely to be available until Spring 2021. While coastwide annual estimates may be possible, it may not be feasible or defensible to generate wave or state specific estimates given the number of considerations and assumptions that would need to go into this process. Intercept sampling resumed at different points in the year in different states, but not all to the same level. While sampling is currently back to some level of consistency, current conditions have led to some changes in coverage and information gathered. One notable trend is that interviewers are getting fewer length and weight measurements during interviews due to the reluctance of interviewers and anglers to closely interact. Interviewers in some states are being given more discretion in sampling protocols to ensure their safety, which could ultimately create some bias in the data. In addition, at sea sampling for headboats has essentially been suspended everywhere for safety reasons.
The MC reviewed preliminary effort data for waves 1-4 with comparisons to 2018-2019 data. These data can provide information on general trends in recreational trips, but are not speciesspecific. In the absence of intercept data, it is not possible to draw conclusions about 2020 harvest for any species.

The group discussed whether there were additional data sources that may provide additional context to or verification of the MRIP generated effort estimates, such as license sales, bait and tackle sales, marina use, Vessel Trip Report (VTR) data, etc. However, the MC was in general agreement that while these trends may be of interest later on to contribute to a general evaluation
of 2020 fishing trends, they are not likely to be informative for recommendations of 2021 recreational measures for summer flounder, scup, and black sea bass. None of these data streams would allow the MC to generate species-specific harvest estimates for comparison to the Recreational Harvest Limit (RHL) or to make specific adjustments to management measures. The MC also noted that VTR data would be of limited use given the relatively small proportion of forhire harvest for these species, variation in for-hire activity and restrictions this year, and the lack of any comparable catch data for private and shore modes. In addition, given that for-hire fisheries had more restrictions imposed on them compared to private recreational anglers during some portions of this year, for-hire data are unlikely to be representative of broader fishery trends. Dr. Cody indicated that NMFS has explored metrics such as license sales and they generally seem to match the trends seen in the MRIP-estimated effort data. The limited analysis they have conducted indicates that there did not seem to be a drop in effort for private boat and shore anglers, and sales were in line with previous years in most cases. Information available on the for-hire fleet is also consistent with MRIP effort estimates which indicate a notable drop in for-hire trips for the first four waves of 2020.

One member of the public asked if New York's for-hire data are available to be reviewed, along with clarifying questions about New York's for-hire reporting requirements. The MC representative from New York responded that the state VTR data are incorporated into the MRIP effort estimates; however, they are not used in the catch estimates as they have not been validated. They are working toward getting these data certified for use in the MRIP catch estimates in the future.

## Scup

The MC agreed with the staff recommendation for status quo recreational management measures for scup in 2021. Due to the lack of recreational harvest estimates in 2020, there are no harvest projections to compare to the 2021 RHL. They also agreed that the rationale for status quo recreational measures discussed at the MC meeting in 2019 for 2020 measures still holds true for 2021. This rationale included the ongoing management response to the new understanding of the magnitude of recreational harvest based on the new MRIP estimates as well as the healthy stock status for scup.

A Council member asked whether there would be a back-calibrated 2019 recreational harvest estimate in the old MRIP currency that could be compared with the 2019 RHL. Greater Atlantic Regional Fisheries Office (GARFO) and MRIP staff responded that they are working to get this estimate, however it is currently unavailable. MRIP staff also noted that although they have the ability to provide a back-calibrated estimate for 2019 recreational catch, this back calculation should not be done in perpetuity as the calibration between the two methods will be associated with increased uncertainty as more time passes since the calibration base years.

One MC member noted that there is a discrepancy with the minimum size between some southern states ( 8 inches) and the federal regulations ( 9 inches). In the future it may be helpful to align these regulations for simplicity and compliance. Other MC members noted that due to the small amount of scup harvest occurring in those states, this discrepancy is likely not a major issue.

## Black Sea Bass

The MC supported the staff recommendation for status quo recreational management measures in 2021.

The MC discussed the implications of potential overages of the 2019 commercial and recreational black sea bass ACLs. Final 2019 catch data are not yet available for either sector. The recreational ACLs through 2019 must be compared against catch in the "old" pre-calibration MRIP units. As previously stated, GARFO is currently working with MRIP staff to obtain pre-calibration 2019 estimates. In addition, final data on black sea bass dead discards in weight in 2019 are not yet available for either sector. For these reasons, it is not yet known how commercial and recreational catch in 2019 will compare to the respective ACLs and the 2019 ABC.

One MC member asked about the consequences of any 2019 overages. For example, would GARFO consider implementing an in-season closure of the recreational fishery in 2021 if it is determined that there was a large recreational overage in 2019? The GARFO representative on the MC said GARFO would be very reluctant to use in-season management in this way. Council staff added that the Fishery Management Plan does not currently allow for in-season closures of the recreational fishery.

It is possible that there was a recreational overage in 2019. In addition, the use of status quo measures in 2020 was expected to result in an overage of the 2020 recreational ACL; however, as previously stated, there were notable gaps in recreational data collection in 2020 due to Covid-19, which will pose challenges for estimating catch. Catch in 2021 is also uncertain; however, continued use of status quo measures may result in an overage of the 2021 recreational ACL given past trends in the fishery. Understanding 2020 catch and potential 2021 catch is complicated by the data limitations and uncertainty about continued Covid-19 related restrictions during 2021. The GARFO representative on the MC said that GARFO supports consideration of an additional year of status quo recreational management measures in 2021 given the current data limitations, the ongoing progress with the Commercial/Recreational Allocation Amendment, and the Recreational Management Reform Initiative. However, this remains a temporary solution and GARFO will not approve indefinite use of status quo recreational management measures. It is important to continue to make progress on the Commercial/Recreational Allocation Amendment and the Recreational Reform Initiative to ensure that catch is constrained to meaningful catch limits, even under very high biomass levels.
One MC member asked if states could make slight changes to their seasons in 2021, for example to maintain a Saturday opening by modifying the season later in the year to ensure that expected harvest remains unchanged. One staff member said this may be possible; however, further discussions with GARFO and Commission leadership is needed given that the overall status quo approach is expected to result in RHL and ACL overages. For this reason, the status quo approach for black sea bass may need to be more strict than for summer flounder, as described in the next section.

Another MC member asked what the status quo approach would mean for states which participate in the optional February recreational opening and may need to modify measures later in the year to account for February harvest. Staff clarified that this has been allowed since 2018 and fits within the definition of status quo because states would be modifying their measures to ensure that an approximately status quo level of harvest is achieved.

## Summer Flounder

The MC agreed with the staff recommendation for continued use of regional conservation equivalency for summer flounder in 2021, using the same regions as adopted in 2020. The group noted that the lack of 2020 harvest estimates would create high uncertainty when considering any adjustments to measures. The MC agreed with the rationale that status quo summer flounder measures would contribute to improved stability in the fishery and that 2019 data (in the absence of 2020 projections) does not indicate a cause for concern with maintaining the current measures. The MC acknowledged that while 2020 information is not available, given recent performance of this fishery, maintaining status quo measures could fall under the recently applied principle of not making minor adjustments in either direction as a way of accounting for uncertainty in the MRIP data.

For these reasons, the MC also recommends that state measures generally remain the same as in 2020 and recommended against allowing for substantial changes to the management measures. However, the group did support allowing states to make minor adjustments to their open seasons, if desired, in a way that would not be projected to increase harvest. For example, last year, New Jersey shifted its season start and end dates by two days on either end, which was not expected to result in a harvest increase. This would allow for setting the season opening to a preferred weekend or holiday date. A Board member noted that in New Jersey this promotes compliance and ease of enforcement given that everyone expects the season to start on Memorial Day weekend. It was noted that there will be increased uncertainty this year with this type of adjustment given that 2020 data are not available, and adjustments would need to be made using 2019 or earlier data. The Council and Board should consider this when discussing these types of adjustments.
Under conservation equivalency, the MC recommended status quo non-preferred coastwide measures, including a 19-inch size limit, 4 fish bag limit, and open season from May 15-September 15 , as well as status quo precautionary default measures including a 20 -inch minimum size, a 2 fish possession limit, and an open season of July 1-August 31. The group believed the rationale and analysis described last year for application of these measures in 2020 is still appropriate for 2021 given that more recent data or analyses are not available.
One member of the public expressed frustration that the MC had not discussed mandatory private angler electronic reporting as well as his request for evaluation of stock enhancement for summer flounder via a larval release project. A Board member noted that many groups are considering electronic reporting, but it's important to consider the best ways to do it, including lessons learned from the various electronic reporting initiatives that have been carried out.


## Summer Flounder, Scup, and Black Sea Bass Advisory Panel Webinar

November 10, 2020
The Mid-Atlantic Fishery Management Council's (Council's) Summer Flounder, Scup, and Black Sea Bass Advisory Panel (AP) met jointly with the Atlantic States Marine Fisheries Commission's (Commission's) Summer Flounder, Scup, and Black Sea Bass AP via webinar on November 10, 2020. The objectives of this meeting were to review and provide feedback on staff recommendations for 2021 recreational measures for these three species.

Please note: Advisor comments described below are not necessarily consensus or majority statements. Some advisors also provided written comments which are included in the briefing materials for the December 2020 joint Council and Board meeting (available at: http://www.mafmc.org/meetings).
Council Advisory Panel members present: Katie Almeida (MA), Carl Benson (NJ), Bonnie Brady (NY), Jeff Deem (VA), James Fletcher (NC), Carl Forsberg (NY), Howard King (MD), Michael Pirri (CT), Michael Plaia (CT)*, Bob Pride (VA), Chris Spies (NY), Harvey Yenkinson (PA), Doug Zemeckis (NJ)

Commission Advisory Panel members present: Frank Blount (RI), Paul Caruso (MA), Joseph Huckemeyer (MA), Michael Plaia (CT)*, Buddy Seigel (MD)
*Serves on both Council and Commission Advisory Panels.
Others present: Chris Batsavage, Julia Beaty, Cory Blount, Dustin Colson Leaning, Karson Coutré, Kiley Dancy, Tony DiLernia, Steve Doctor, Michelle Duval, Emily Keiley, Savannah Lewis, Matt Seeley, Mike Waine, Hannah Welch, Meredith Whitten, Angel Willey

## Scup

Six advisors voiced support for the staff recommendation of status quo recreational measures in 2021 and none in attendance expressed opposition to the recommendation. One advisor expanded on their support saying that the scup biomass is high, and the 2020 recreational data is too uncertain for changes.

One AP member felt it was an issue that MRIP estimates the number of trips and not the number of anglers. Private angler reporting would provide a better understanding of what is being caught by individual recreational anglers. He added that Bluefin Data created an application for North Carolina anglers and the Council and Board should expand that to all recreational anglers. One Council member and staff responded that multiple reporting applications are being developed for private anglers in other regions or for individual species; however, there is more work to be done before an electronic reporting application could be successfully used on a broad scale for summer flounder, scup, and black sea bass throughout this region.

## Black Sea Bass

Six advisors expressed support for the staff recommendation of maintaining status quo recreational management measures in 2021. One advisor did not support this recommendation and said measures should be liberalized as they have been too restrictive for too long. For example, the season in New York should not start so late in the year.

One advisor asked if recruitment data from 2020 will be available. Staff explained that black sea bass recruitment estimates are informed by multiple state and federal fisheries-independent surveys, which were all impacted to different degrees by Covid-19. Some information from 2020 should be available in the future, though it may be less comprehensive than previous years. This advisor added that fishing pressure in both the commercial and recreational sectors was likely reduced in 2020 . He also asked how a potential reduction in discard mortality rates resulting from increased use of descending devices and other less lethal gear types might influence future recreational harvest limits (RHLs). Staff noted that the $15 \%$ assumed discard mortality rate currently used in the stock assessment would need to change for this to impact the RHL.

One advisor claimed that most private anglers fish from private docks, where they are not sampled by MRIP intercepts and are therefore not accurately accounted for in the data.

## Summer Flounder

At least six advisors expressed support for the staff recommendation of continued regional conservation equivalency for summer flounder in 2021 with status quo associated measures. A few noted that they would expect summer flounder harvest to be down this year due to Covidrelated restrictions earlier this year, in particular for the for-hire sector. Several advisors supported the argument that given data gaps this year, modifications to measures would be associated with too much uncertainty.

One advisor questioned whether NMFS would be able to approve conservation equivalency this year given the lack of state harvest data for 2020 and associated percent standard errors (PSEs). He stated that given the uncertainties associated with this year's data, he would expect state PSEs to be very high and that implementing conservation equivalency would thus not be based on best available science. Staff responded that we do not have state level data or PSEs for 2020, and this is part of the reason for the status quo recommendation. The current measures are associated with a level of projected harvest that would not require major adjustments based on the proposed 2021 RHL. Adjusting the measures would be associated with more uncertainty given the difficulty in predicting outcomes without 2020 harvest data.

One advisor commented that the current May-September season in most states does not account for discards of caught fish during closed seasons and that these discards need to be accounted for. Staff responded that these discards are accounted for the same way discards are accounted for the rest of the season through the MRIP intercept and effort survey processes. Another advisor agreed that commercial and recreational discards in general are a substantial problem that the Council and Board need to address, on the order of millions of pounds per year, and that managers need to identify methods to get them under control.

One advisor questioned why NMFS, the Council, and the Board have not seriously pursued mandatory private angler electronic reporting given that there are currently apps available that
would allow for this. He indicated that we are not getting accurate data from the private/rental component of the fishery, especially those that are returning to private docks. This advisor also expressed frustration that a total cumulative length limit (i.e., a limit on the cumulative length of all retained fish) with mandatory retention of all fish was not being considered for recreational summer flounder management.

One advisor noted that he was hopeful that reduced fishing effort earlier this year during the spawning season would lead to improved recruitment this year.

Another advisor questioned the MRIP estimates of summer flounder harvest by recreational fishing mode and indicated that $3 \%$ from shore and $10 \%$ from for-hire vessels is laughable.

One advisor requested that the Council ask the Scientific and Statistical Committee (SSC) to evaluate the possibility of releasing billions of summer flounder, scup, and black sea bass larvae into estuaries to enhance their populations. He believes this would notably increase the amount of adult fish available to be harvested. This advisor also noted that on the issue of commercial/recreational allocation, it is unclear why the recreational fishery, as a small percentage of the US population, should get the majority of allocation. He indicated that there is a need to get a better estimate of the number of anglers in addition to the number of recreational trips, so that the proportion of the US population that recreationally fishes can be better estimated.

One member of the public asked about the current state of MRIP estimation for the rest of 2020 and whether intercept sampling had resumed. Staff indicated that to their knowledge, intercept sampling had partially or fully resumed in some states, but may be limited by factors such as higher interview refusal rates. The same individual asked if there had been any decisions on how missing 2020 recreational angler intercept data would impact the assessments or assessment schedules. Staff responded that these issues are currently in discussion by the Northeast Regional Coordinating Council.

## Kiley Dancy

$$
\begin{array}{ll}
\text { From: } & \text { James Fletcher <bamboosavefish@gmail.com> } \\
\text { Sent: } & \text { Thursday, October 22, 2020 10:21 AM } \\
\text { To: } & \text { Kiley Dancy } \\
\text { Subject: } & \text { Fwd: Re: where can I find slide of sound to ocean migration of southern Flounder or summer } \\
& \text { flounder used in your inlet corridor presentation on internet? }
\end{array}
$$

Kiley: trying to find sketch showing flounder leaving estuaries \& going to sea to spawn then larva returning to estuaries.
Question: why couldn't management spawn billions of larva to place in estuaries; either southern or summer flounder.
What agency is opposed to culturing larva for release? NOAA, NMFS or Council? NOAA \& NMFS seems to have endorsed targeting the females of both species.
Can advisors discuss raising \& releasing larva as less expensive \{it is known how to change color patterns to prove success ] in releasing larva; LARVA NOT DEVELOPED FISH!

## --------

 Forwarded Message $\qquad$Subject:Re: where can I find slide of sound to ocean migration of southern Flounder or summer flounder used in your inlet corridor presentation on internet?
Date:Thu, 22 Oct 2020 13:39:30 +0000
From:Didden, Jason [jdidden@mafmc.org](mailto:jdidden@mafmc.org)
To:Fletcher, James [unfa34@gmail.com](mailto:unfa34@gmail.com), lee.paramore@ncdenr.gov [lee.paramore@ncdenr.gov](mailto:lee.paramore@ncdenr.gov), Kiley Dancy [kdancy@mafmc.org](mailto:kdancy@mafmc.org)

Kiley may have something, I do not.
Jason

## Get Outlook for iOS

From: James Fletcher [bamboosavefish@gmail.com](mailto:bamboosavefish@gmail.com)
Sent: Thursday, October 22, 2020 9:37:05 AM
To: lee.paramore@ncdenr.gov [lee.paramore@ncdenr.gov](mailto:lee.paramore@ncdenr.gov); Didden, Jason [jdidden@mafmc.org](mailto:jdidden@mafmc.org)
Subject: where can I find slide of sound to ocean migration of southern Flounder or summer flounder used in your inlet corridor presentation on internet?

My cell is 7574358475
Jason would you know where to acquire a inshore off shore migration
depiction?
--
James Fletcher
United National Fisherman's Association
123 Apple Rd.
Manns Harbor, NC 27953
252-473-3287

| From: | Lames Fletcher |
| :--- | :--- |
| To: | Beaty, Julia |
| Subject: | Re: Materials for Tuesday"s AP meeting |
| Date: | Thursday, November 5, 2020 1:14:32 PM |

THANKS FOR REMINDER! Could we discuss releasing Billions of fertilized eggs from species? for instance Chesapeake bay tunnel Has island in middle bay. Oregon Inlet will section of ols bridge, Delaware Bridge has location. Spawn fish \& let eggs fertilize, then release on flood tide with on shore wind.
let us discuss something to increase population!

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


## Kiley Dancy

| From: | Dustin C. Leaning [DLeaning@asmfc.org](mailto:DLeaning@asmfc.org) |
| :--- | :--- |
| Sent: | Monday, November 9, 2020 7:40 PM |
| To: | PAUL G. CARUSO |
| Cc: | Kiley Dancy; Beaty, Julia; Starks, Caitlin; Coutre, Karson; Savannah Lewis |
| Subject: | RE: [External] Re: Materials for Tuesday's Advisory Panel Meeting |

Hi Paul,
Thank you for letting us know. We look forward to you joining us tomorrow for whatever portion of the call you can!
Best,
Dustin

From: PAUL CARUSO [mailto:pkcaruso@comcast.net]
Sent: Monday, November 9, 2020 4:13 PM
To: Dustin C. Leaning [DLeaning@asmfc.org](mailto:DLeaning@asmfc.org)
Subject: [External] Re: Materials for Tuesday's Advisory Panel Meeting
Hi Dustin, I will be logging in a little tardy for tomorrows webinar (1:45 PM ish), but may call in from the road a bit before that. As of this moment and given our lack of recreational catch and harvest estimates for 2020 I fully concur with staff recommendations that regulations remain status quo for 2021 for all three species under consideration. Many thanks for your's and MAFMC staffs good work. Sincerely, Paul Caruso

## Kiley Dancy

| From: | Dustin C. Leaning [DLeaning@asmfc.org](mailto:DLeaning@asmfc.org) |
| :--- | :--- |
| Sent: | Tuesday, November 10, 2020 1:17 PM |
| To: | Blount, Frank |
| Cc: | Coutre, Karson; Beaty, Julia; Kiley Dancy; Savannah Lewis |
| Subject: | RE: [External] Re: Materials for Tuesday's Advisory Panel Meeting |

Hi Frank,

Thank you for checking in! I see you on the webinar now, so hopefully your connection and audio is working well enough for you to participate. Otherwise we can go with the comments you provided below.

Best,
Dustin

From: Francesflt [mailto:francesflt@aol.com]
Sent: Tuesday, November 10, 2020 12:38 PM
To: Dustin C. Leaning [DLeaning@asmfc.org](mailto:DLeaning@asmfc.org)
Subject: [External] Re: Materials for Tuesday's Advisory Panel Meeting

Dustin
I will be on the call at 1 pm . I am on a boat so may not have the best connection. If by chance I drop the call I am fine with Status Quo for all three species. I would like to add that head boat landings in RI are "WAY" down this year do to COVID. If there is any wat to increase landings for the head boat sector it would be a huge help as we have been struggling during these difficult times.

Thanks and stay safe.
Frank

## Kiley Dancy

| From: | Dustin C. Leaning [DLeaning@asmfc.org](mailto:DLeaning@asmfc.org) |
| :--- | :--- |
| Sent: | Monday, November 16, 2020 2:00 PM |
| To: | JACK CONWAY |
| Cc: | Kiley Dancy; Beaty, Julia; Savannah Lewis; Coutre, Karson |
| Subject: | RE: AP Meeting Summary |

Thanks for the input Jack!
All the best,
Dustin

From: Conway Jr, JACK D [mailto:jack.d.conway.jr@Imco.com]
Sent: Monday, November 16, 2020 9:00 AM
To: Dustin C. Leaning [DLeaning@asmfc.org](mailto:DLeaning@asmfc.org)
Subject: [External] RE: AP Meeting Summary

The call feel off my calendar, I was looking forward to it. Status quo works out fine for anglers fishing in CT. Keeping things "the same" during these troubling times makes a great deal of sense.

Jack Conway

From: Dustin C. Leaning [DLeaning@asmfc.org](mailto:DLeaning@asmfc.org)
Sent: Monday, November 16, 2020 8:45 AM
To: SUMMER FLOUNDER, SCUP, \& BLACK SEA BASS ADVISORY PANEL <sfsbsb ap@asmfc.org>
Subject: EXTERNAL: AP Meeting Summary
Good morning Summer Flounder, Scup, and Black Sea Bass Advisors,
Please see attached for a draft summary of your comments and recommendations from our meeting last week. We have also attached to the summary a few comments received by email. For edits to the attached AP summary or additional comments for the Council and Board, please let us know by the end of Wednesday 12/2, which is the public comment deadline for the December briefing book.

Thanks!
Dustin Colson Leaning
Fishery Management Plan Coordinator
Atlantic States Marine Fisheries Commission
1050 N. Highland Street, Suite 200A-N
Arlington, VA 22201
703.842.0714
dleaning@asmfc.org
www.asmfc.org
Sustainable and Cooperative Management of Atlantic Coastal Fisheries

November 23, 2020
To: Julia Beaty (MAFMC staff)
From: Captain Steve Withuhn (AP member)
Subject: Comments in Reference to Summer Flounder, Scup, and Black Sea Bass Advisory Panel Webinar Meeting on November 10, 2020

Additional comments provided by advisor Steven Withuhn (NY) to Council staff over the phone following the November 10, 2020 Advisory Panel Webianr meeting:

- Support the approach of status quo recreational management measures in 2021.
o Very limited data collected in 2020.
o Hopefully things will get back on track next year.
- Concerns about VTR accuracy.
o Many for-hire captains accurately report what they keep, but not what they discard. They fear discards will be used against them.
o Often have to discard many fish to get a decent amount of keepers.
0 It's very important to get accurate data on discards.
o How can we build confidence in the science and management so the for-hire sector is motivated to report accurately?
o VTRs should include information such as depth at which the fish were caught, if released fish were immediately eaten by predators, and other information.
- Good availability of black sea bass in 2020. Lots of young of year.
- Good scup availability, but not as many jumbos. Lots of smaller fish. Charter boats prefer the larger fish.
- In the commercial fishery, very low prices for black sea bass this year (e.g., $\$ 1.20 /$ pound). With restaurant closures, very low demand and packhouses don't want more fish. Fishermen have to work harder for less money.


# MEMORANDUM 

Date: $\quad$ November 3, 2020
To: Chris Moore, Executive Director
From: Karson Coutré, Staff
Subject: Scup Recreational Management Measures for 2021

## Background and Summary

The information in this memo is intended to assist the Monitoring Committee, Advisory Panels, the MidAtlantic Fishery Management Council (Council) and the Atlantic States Marine Fisheries Commission's (Commission’s) Summer Flounder, Scup, and Black Sea Bass Management Board (Board) in developing recommendations for scup recreational measures for 2021.

In August 2020, the Council and Board reviewed the previously adopted commercial quota and recreational harvest limit (RHL) for scup for the 2021 fishing year. The Council and Board recommended a change to the implemented catch and landings limits based on the recommendations of the Scientific and Statistical Committee (SSC) which addressed the Council's December 2019 revisions to its risk policy. Based on these revisions, the previously implemented 2021RHL for scup was revised to 6.07 million pounds. The rule implementing the revised 2021 commercial quota and RHL has not yet published but is expected to publish prior to the end of 2020.

Each year, the Monitoring Committee (MC) is tasked with recommending recreational management measures (possession limits, size limits, and seasons) to constrain harvest to the RHL. The Council and Board agree to federal waters recreational management measures for scup for the upcoming year that apply throughout federal waters from Maine through North Carolina. State waters measures will be determined through the Commission process in early 2021.

Typically, staff uses partial year recreational catch data to project harvest through the remainder of the current year. This projection is then compared to the RHL for the upcoming fishing year. This year, as described below, recreational data collection was severely limited by restrictions related to the ongoing Covid-19 pandemic. As a result, no 2020 preliminary harvest estimates are available for scup to project harvest for the rest of the year. Estimated total recreational fishing trips within the management unit are available and described below; however, these estimates are not species specific.

2020 was the first year that scup catch and landings limits and management measures accounted for changes to the recreational data provided by the Marine Recreational Information Program (MRIP). The
revised estimates released in July 2018 are several times higher than the previous estimates for shore and private boat modes, substantially raising the overall scup catch and harvest estimates (e.g., Table 1). The revised MRIP estimates were incorporated into the 2019 scup operational stock assessment. Given challenges associated with transitioning to management based on the new MRIP data, high availability of scup, a very healthy stock status, and catch projections that were below the 2020 ABC, the MC recommended status quo recreational measures in state and federal waters for scup in 2020. These considerations discussed by the MC last year remain relevant to 2021 as the summer flounder, scup, and black sea bass allocation amendment is ongoing. As described below, staff recommend that status quo recreational measures be maintained for scup in 2021.

## Past RHLs and Management Measures

Scup RHLs were first implemented in 1996. Since then, the RHL varied from a low of 1.24 million pounds in 1999 and 2000 to a high of 8.45 million pounds in 2012. As previously stated, the RHL is 6.07 million pounds in 2021 (Table 1).

Until 2002, the recreational scup fishery was managed with coastwide measures as dictated by the FMP. These measures included a common minimum fish size, possession limit, and open season that were implemented in both state and federal waters. Since 2003, the Commission has applied a regional management approach to recreational scup fisheries in state waters, where New York, Rhode Island, Connecticut, and Massachusetts develop regulations intended to achieve $97 \%$ of the RHL. In federal waters, regulations have been unchanged since 2015 and include a minimum size of 9 inches total length, a year-round open season, and a possession limit of 50 scup (Table 1). Management measures in state waters vary by state, mode (e.g., private, for-hire), and season. State waters measures remained unchanged from 2015 through 2017. The states of Massachusetts through New York reduced their recreational minimum size limits and New Jersey extended their recreational fishing season to the full year in 2018. In 2019, Massachusetts through New York increased their party/charter bag limit from 45 to 50 fish during a portion of their open season. Massachusetts through New York extended their recreational fishing season to the full year (opening fishing during waves 1 and 2). All state waters measures remained unchanged from 2019 to 2020 (Table 2).

Table 1: Summary of federal management measures for the scup recreational fishery, 1997-2021. ABCs, TACs, ACLs, RHLs, and harvest are in millions of pounds. Recreational harvest values are for Maine through North Carolina and old and revised MRIP estimates are shown.

| Year | $\begin{aligned} & \text { TAC/ } \\ & \text { ABC } \end{aligned}$ | Rec. <br> ACL | RHL | Rec. harvest (Old MRIP) | \% over/ under RHL | Rec. harvest (New MRIP) | Bag <br> limit <br> (\# of <br> fish) | Size limit (inches, total length) | Open season |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1997 | 9.10 | - | 1.95 | 1.20 | -38\% | 2.54 | - | 7 | 1/1-12/31 |
| 1998 | 7.28 | - | 1.55 | 0.87 | -44\% | 1.82 | - | 7 | 1/1-12/31 |
| 1999 | 5.92 | - | 1.24 | 1.89 | +52\% | 4.63 | - | 7 | 1/1-12/31 |
| 2000 | 5.92 | - | 1.24 | 5.44 | +339\% | 11.39 | - | - | 1/1-12/31 |
| 2001 | 8.37 | - | 1.76 | 4.26 | +142\% | 9.77 | 50 | 9 | 8/15-10/31 |
| 2002 | 12.92 | - | 2.71 | 3.62 | +34\% | 6.23 | 20 | 10 | 7/1-10/2 |
| 2003 | 18.65 | - | 4.01 | 8.48 | +111\% | 17.21 | 50 | 10 | $\begin{gathered} \hline 1 / 1-2 / 28 \\ 7 / 1-11 / 30 \end{gathered}$ |
| 2004 | 18.65 | - | 3.99 | 7.28 | +82\% | 12.83 | 50 | 10 | $\begin{gathered} \hline 1 / 1-2 / 28 \\ 9 / 7-11 / 30 \end{gathered}$ |
| 2005 | 18.65 | - | 3.96 | 2.69 | -32\% | 4.30 | 50 | 10 | $\begin{gathered} \hline 1 / 1-2 / 28 \\ 9 / 18-11 / 30 \end{gathered}$ |
| 2006 | 19.79 | - | 3.99 | 3.72 | -7\% | 5.93 | 50 | 10 | $\begin{gathered} 1 / 1-2 / 28 \\ 9 / 18-11 / 30 \end{gathered}$ |
| 2007 | 13.97 | - | 2.74 | 4.56 | +66\% | 7.10 | 50 | 10 | $\begin{gathered} \hline 1 / 1-2 / 28 \\ 9 / 18-11 / 30 \end{gathered}$ |
| 2008 | 9.9 | - | 1.83 | 3.79 | +107\% | 5.76 | 15 | 10.5 | $\begin{gathered} 1 / 1-2 / 28 \\ 9 / 18-11 / 30 \\ \hline \end{gathered}$ |
| 2009 | 15.54 | - | 2.59 | 3.23 | +25\% | 6.28 | 15 | 10.5 | $\begin{gathered} 1 / 1-2 / 28 \\ 10 / 1-10 / 31 \\ \hline \end{gathered}$ |
| 2010 | 17.09 | - | 3.01 | 5.97 | +98\% | 12.48 | 10 | 10.5 | $\begin{gathered} \hline 1 / 1-2 / 28 \\ 10 / 1-10 / 31 \\ \hline \end{gathered}$ |
| 2011 | 31.92 | - | 5.74 | 3.67 | -36\% | 10.32 | 10 | 10.5 | 6/6-9/26 |
| 2012 | 40.88 | 31.89 | 8.45 | 4.17 | -51\% | 8.27 | 20 | 10.5 | 1/1-12/31 |
| 2013 | 38.71 | 30.19 | 7.55 | 5.37 | -29\% | 12.64 | 30 | 10 | 1/1-12/31 |
| 2014 | 35.99 | 28.07 | 7.03 | 4.43 | -37\% | 10.27 | 30 | 9 | 1/1-12/31 |
| 2015 | 33.77 | 26.35 | 6.8 | 4.41 | -35\% | 11.93 | 50 | 9 | 1/1-12/31 |
| 2016 | 31.11 | 6.84 | 6.09 | 4.26 | -30\% | 10.00 | 50 | 9 | 1/1-12/31 |
| 2017 | 28.4 | 6.25 | 5.50 | 5.42 | -1\% | 13.53 | 50 | 9 | 1/1-12/31 |
| 2018 | 39.14 | 8.61 | 7.37 | 5.61 | -24\% | 12.98 | 50 | 9 | 1/1-12/31 |
| 2019 | 36.43 | 8.01 | 7.37 | - | - | 14.12 | 50 | 9 | 1/1-12/31 |
| 2020 | 35.77 | 7.87 | 6.51 | - | - | - | 50 | 9 | 1/1-12/31 |
| 2021 | 34.81 | 7.66 | 6.07 | - | - | - | TBD | TBD | TBD |

Table 2: State recreational fishing measures for scup in 2019 and 2020.

| State | Minimum Size (inches) | Possession Limit | Open Season |
| :---: | :---: | :---: | :---: |
| MA private \& shore | 9 | 30 fish; 150 fish/vessel with 5+ anglers on board | January 1-December 31 |
| MA party/charter | 9 | 30 fish | April 13-April 30; July 1December 31 |
|  |  | 50 fish | May 1-June 30 |
| RI private \& shore | 9 |  |  |
| RI shore program (7 designated shore sites) | 8 | 30 fish | January 1-December 31 |
| RI party/charter | 9 | 30 fish | January 1-August 31; November 1-December 31 |
|  |  | 50 fish | September 1-October 31 |
| CT private \& shore | 9 |  |  |
| CT shore program (45 designed shore sites) | 8 | 30 fish | January 1-December 31 |
| CT party/charter | 9 | 30 fish | January 1-August 31; November 1-December 31 |
|  |  | 50 fish | September 1-October 31 |
| NY private \& shore | 9 | 30 fish | January 1-December 31 |
| NY party/charter | 9 | 30 fish | January 1-August 31; <br> November 1-December 31 |
|  |  | 50 fish | September 1- October 31 |
| NJ | 9 | 50 fish | January 1- December 31 |
| DE | 8 | 50 fish | January 1-December 31 |
| MD | 8 | 50 fish | January 1-December 31 |
| VA | 8 | 30 fish | January 1-December 31 |
| NC, North of Cape Hatteras | 8 | 50 fish | January 1-December 31 |

## Recreational Catch and Harvest Trends

Since 1981, estimated recreational scup catch fluctuated from a peak of 37.31 million fish in 1986 to a low of 6.60 million fish in 1997. Estimated harvest fluctuated from a high of 14.18 million pounds and 30.43 million fish in 1986 to a low of 1.82 million pounds and 2.74 million fish in 1998. In 2019, recreational harvest was about 14.95 million fish and 14.12 million pounds, and approximately 28.67 million scup were caught, with a release rate of $48 \%$ (Table 3). Note that the 2019 MRIP estimates should not be compared to the 2019 RHL as the 2019 RHL did not account for the revisions to the MRIP data.

Table 3: Recreational scup catch and harvest by year, ME - NC, 1981-2019 based on new MRIP estimates. Catch includes landings as well as both live and dead discards. Percent released includes all released fish, including those that survive and those that are presumed to die post-release. Preliminary 2020 MRIP estimates and projections are unavailable due to Covid-19 related data gaps.

| Year | Catch (mil. fish) | Harvest (mil. fish) | Harvest <br> (mil. lb) | \% Released | Avg. weight of landed fish (lb) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1981 | 19.68 | 17.31 | 11.14 | 12\% | 0.64 |
| 1982 | 13.14 | 10.83 | 8.62 | 18\% | 0.80 |
| 1983 | 13.78 | 12.19 | 8.62 | 12\% | 0.71 |
| 1984 | 11.38 | 8.78 | 3.28 | 23\% | 0.37 |
| 1985 | 24.56 | 18.84 | 11.29 | 23\% | 0.60 |
| 1986 | 37.31 | 30.43 | 14.18 | 18\% | 0.47 |
| 1987 | 18.11 | 14.03 | 10.41 | 23\% | 0.74 |
| 1988 | 12.14 | 9.39 | 7.03 | 23\% | 0.75 |
| 1989 | 23.73 | 19.32 | 10.54 | 19\% | 0.55 |
| 1990 | 18.26 | 14.04 | 7.17 | 23\% | 0.51 |
| 1991 | 27.41 | 21.90 | 12.91 | 20\% | 0.59 |
| 1992 | 20.96 | 16.50 | 9.45 | 21\% | 0.57 |
| 1993 | 10.71 | 8.40 | 4.63 | 22\% | 0.55 |
| 1994 | 8.86 | 6.58 | 4.33 | 26\% | 0.66 |
| 1995 | 6.78 | 4.06 | 2.27 | 40\% | 0.56 |
| 1996 | 10.38 | 6.27 | 4.42 | 40\% | 0.70 |
| 1997 | 6.60 | 3.64 | 2.54 | 45\% | 0.70 |
| 1998 | 6.86 | 2.74 | 1.82 | 60\% | 0.66 |
| 1999 | 10.99 | 7.41 | 4.63 | 33\% | 0.62 |
| 2000 | 22.06 | 14.94 | 11.39 | 32\% | 0.76 |
| 2001 | 21.93 | 11.13 | 9.77 | 49\% | 0.88 |
| 2002 | 17.36 | 7.07 | 6.23 | 59\% | 0.88 |
| 2003 | 28.63 | 17.52 | 17.21 | 39\% | 0.98 |
| 2004 | 26.79 | 12.94 | 12.83 | 52\% | 0.99 |
| 2005 | 13.19 | 4.49 | 4.30 | 66\% | 0.96 |
| 2006 | 20.07 | 5.52 | 5.93 | 72\% | 1.07 |
| 2007 | 17.80 | 7.46 | 7.10 | 58\% | 0.95 |
| 2008 | 19.51 | 5.65 | 5.76 | 71\% | 1.02 |
| 2009 | 20.75 | 6.06 | 6.28 | 71\% | 1.04 |
| 2010 | 25.13 | 10.60 | 12.48 | 58\% | 1.18 |
| 2011 | 18.52 | 7.60 | 10.32 | 59\% | 1.36 |
| 2012 | 21.24 | 7.33 | 8.27 | 65\% | 1.13 |
| 2013 | 25.79 | 11.49 | 12.57 | 55\% | 1.09 |
| 2014 | 20.37 | 9.17 | 9.84 | 55\% | 1.07 |
| 2015 | 24.87 | 11.33 | 11.93 | 54\% | 1.05 |
| 2016 | 31.49 | 9.14 | 10.00 | 71\% | 1.09 |
| 2017 | 41.20 | 13.83 | 13.54 | 66\% | 0.98 |
| 2018 | 30.37 | 14.55 | 12.98 | 52\% | 0.89 |
| 2019 | 28.67 | 14.95 | 14.12 | 48\% | 0.94 |
| 2020 | N/A | N/A | N/A | N/A | N/A |

In 2019, $90 \%$ of the recreational scup harvest occurred during waves 3-5 (May through October), however the dominant wave varied by state (Table 4). Total recreational harvest (numbers of fish) was the highest in New York, followed by Rhode Island, Connecticut, and Massachusetts in 2019 (Table 5). During 20152019 about 4\% of recreational scup harvest (in pounds) originated in federal waters and $96 \%$ came from state waters (Table 6). Recreational scup landings in New Hampshire through New Jersey and Virginia were predominantly from state waters and landings in Delaware, Maryland and North Carolina mostly originated in federal waters (Table 6).

Table 4: Percent of scup harvest (in weight) by wave for each state in 2019, based on MRIP data downloaded October 30, 2020. Only North Carolina has MRIP sampling during wave 1. Values may not add to $100 \%$ due to rounding.

| State | Wave 1 | Wave 2 | Wave 3 | Wave 4 | Wave 5 | Wave 6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ME | $0 \%$ | $0 \%$ | $0 \%$ | $0 \%$ | $0 \%$ | $0 \%$ |
| NH | $0 \%$ | $0 \%$ | $0 \%$ | $0 \%$ | $0 \%$ | $0 \%$ |
| MA | $0 \%$ | $0 \%$ | $35 \%$ | $35 \%$ | $31 \%$ | $0 \%$ |
| RI | $0 \%$ | $0 \%$ | $25 \%$ | $32 \%$ | $36 \%$ | $7 \%$ |
| CT | $0 \%$ | $0 \%$ | $23 \%$ | $35 \%$ | $35 \%$ | $8 \%$ |
| NY | $0 \%$ | $0 \%$ | $24 \%$ | $30 \%$ | $30 \%$ | $15 \%$ |
| NJ | $0 \%$ | $0 \%$ | $15 \%$ | $23 \%$ | $54 \%$ | $8 \%$ |
| DE | $0 \%$ | $0 \%$ | $0 \%$ | $25 \%$ | $75 \%$ | $0 \%$ |
| MD | $0 \%$ | $0 \%$ | $0 \%$ | $0 \%$ | $50 \%$ | $50 \%$ |
| VA | $0 \%$ | $0 \%$ | $25 \%$ | $25 \%$ | $50 \%$ | $0 \%$ |
| NC | $0 \%$ | $20 \%$ | $20 \%$ | $20 \%$ | $20 \%$ | $20 \%$ |
| Total | $0 \%$ | $1 \%$ | $24 \%$ | $30 \%$ | $36 \%$ | $9 \%$ |

Table 5: Recreational scup harvest (in numbers of fish) by state, waves 1-6 (January - December), 2011-2019, based on new MRIP estimates.
Preliminary 2020 MRIP estimates and projections are unavailable due to Covid-19 related data gaps.

| State | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ME | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | NA |
| NH | 0 | 0 | 0 | 0 | 0 | 0 | 1,893 | 0 | 0 |  |
| MA | 2,124,508 | 2,548,922 | 3,783,126 | 2,802,294 | 1,977,462 | 1,790,614 | 2,086,417 | 3,265,715 | 1,961,011 |  |
| RI | 1,195,957 | 1,031,964 | 2,490,473 | 2,663,951 | 1,218,822 | 1,550,667 | 1,383,385 | 2,376,849 | 3,271,558 |  |
| CT | 1,940,332 | 1,839,883 | 1,837,524 | 1,184,119 | 1,179,608 | 1,352,121 | 1,695,153 | 3,071,108 | 2,491,225 |  |
| NY | 2,141,028 | 1,636,283 | 2,907,277 | 2,469,479 | 6,865,853 | 3,644,607 | 6,473,410 | 5,370,586 | 7,122,255 |  |
| NJ | 160,409 | 271,957 | 464,299 | 44,640 | 84,131 | 655,391 | 2,179,750 | 460,134 | 104,673 |  |
| DE | 36 | 497 | 0 | 37 | 565 | 0 | 221 | 329 | 0 |  |
| MD | 12 | 0 | 0 | 0 | 319 | 186 | 23 | 418 | 380 |  |
| VA | 34,935 | 2,871 | 4,461 | 0 | 3,356 | 149,995 | 0 | 0 | 1,039 |  |
| NC | 1,020 | 2,453 | 760 | 1,783 | 3,474 | 0 | 359 | 349 | 2,016 |  |
| Total | 7,598,237 | 7,334,830 | 11,487,920 | 9,166,303 | 11,333,590 | 9,143,581 | 13,825,022 | 14,546,549 | 14,954,157 |  |

Table 6: Proportion of 2015-2019 recreational harvest (in pounds) from state and federal waters by state based on new MRIP estimates. Area information is self-reported based on the area where the majority of fishing activity occurred for each trip.

| State | State Waters <br> $(<=3$ miles) | EEZ ( > 3 <br> miles) |
| :---: | :---: | :---: |
| MAINE | -- | -- |
| NEW HAMPSHIRE | $100 \%$ | $0 \%$ |
| MASSACHUSETTS | $96 \%$ | $4 \%$ |
| RHODE ISLAND | $97 \%$ | $3 \%$ |
| CONNECTICUT | $99 \%$ | $1 \%$ |
| NEW YORK | $96 \%$ | $4 \%$ |
| NEW JERSEY | $91 \%$ | $9 \%$ |
| DELAWARE | $0 \%$ | $100 \%$ |
| MARYLAND | $31 \%$ | $69 \%$ |
| VIRGINIA | $100 \%$ | $0 \%$ |
| NORTH CAROLINA | $10 \%$ | $90 \%$ |
| Total | $\mathbf{9 6 \%}$ | $\mathbf{4 \%}$ |

## 2020 Recreational Data

Typically, staff uses preliminary MRIP data in the current year for waves 1-4 (January through August) to project catch and harvest through the rest of the year. These projections are then compared to the RHL for the upcoming year to evaluate how harvest may need to be adjusted to prevent RHL overages in the upcoming year. Because 2020 catch data from MRIP are not available due to limited Access Point Angler Intercept Survey (APAIS) sampling related to Covid-19, projections of 2020 harvest cannot be generated.

MRIP effort sampling, via the mail-based Fishery Effort Survey (FES), continued uninterrupted in 2020. Coastwide data on the estimated number of angler trips are available for the first four waves of 2020 (January-August). These data can be broken down by wave and fishing mode; however, they generated for all recreational species combined and are not available by target species given that directed trip data are generated using information from APAIS. Figure 1 and Table 7 summarize estimated combined-species recreational trips for waves 1-4 between 20182020 for Maine through North Carolina. These data indicate that estimated total trips in waves 14 rose by 11\% between 2018 and 2019, and then fell 4\% between 2019 and 2020.

By wave, between 2019 and 2020, trips in wave 2 decreased by 19\%, trips in wave 3 decreased by $4 \%$, and trips in wave 4 increased by $2 \%$. By mode, estimates of party/charter trips in waves $1-4$ decreased by $31 \%$ between 2019 and 2020. Private/rental trips increased by an estimated $2 \%$, and shore mode trips decreased by $7 \%$.

While these data can give managers a general sense of how effort in 2020 compares to 2018 and 2019, they cannot be used to make conclusions about scup catch or harvest in 2020. Given the lack of intercept survey data, no information is available on recreational catch rates, discard rates, or
size/weight of landed and discarded scup in 2020. APAIS information is also required to account for and adjust for non-resident fishing effort and account for area fished, which is important for generating harvest and catch estimates. MRIP is in the process of evaluating possible methods for generating estimates of 2020 catch, including modeling approaches, the feasibility of imputation, and using data proxies such as the previous year's data. These approaches will take some time to develop, and any catch estimates that can be generated for 2020 are not likely to be available until at least early 2021.


Figure 1: Estimated wave 1-4 angler trips for all species, ME-NC, 2018-2020 for a) all trips combined; b) trips by wave, and c) trips by fishing mode.

Table 7: Total estimated angler trips by wave and fishing mode, 2018-2020, waves 1-4, ME-NC. Includes all trips regardless of species caught or targeted.

|  | $\mathbf{2 0 1 8}$ | $\mathbf{2 0 1 9}$ | $\mathbf{2 0 2 0}$ |
| :---: | :---: | :---: | :---: |
| Wave 1 (Jan/Feb) | $\mathbf{1 , 1 9 8 , 4 1 6}$ | $\mathbf{1 , 3 6 7 , 2 7 0}$ | $\mathbf{1 , 1 1 3 , 3 4 5}$ |
| Party/Charter | 284 | 757 | 1,935 |
| Private/Rental | 396,807 | 363,376 | 371,757 |
| Shore | 801,325 | $1,003,137$ | 739,653 |
| Wave 2 (Mar/Apr) | $\mathbf{2 1 , 4 3 4 , 1 5 8}$ | $\mathbf{2 5 , 0 0 0 , 1 2 2}$ | $\mathbf{2 5 , 5 5 1 , 4 0 7}$ |
| Party/Charter | 563,025 | 675,081 | 484,402 |
| Private/Rental | $7,946,904$ | $8,583,014$ | $10,323,820$ |
| Shore | $12,924,229$ | $15,742,027$ | $14,743,185$ |
| Wave 3 (May/Jun) | $\mathbf{7 , 3 5 6 , 3 5 8}$ | $\mathbf{9 , 7 5 5 , 0 4 8}$ | $\mathbf{7 , 8 8 3 , 2 2 1}$ |
| Party/Charter | 26,347 | 28,413 | 3,164 |
| Private/Rental | $1,886,247$ | $3,209,239$ | $2,441,457$ |
| Shore | $5,443,764$ | $6,517,396$ | $5,438,600$ |
| Wave 4 (Jul/Aug) | $\mathbf{1 7 , 7 9 3 , 7 9 5}$ | $\mathbf{1 6 , 8 6 6 , 1 8 2}$ | $\mathbf{1 6 , 1 1 2 , 5 1 7}$ |
| Party/Charter | 380,926 | 388,272 | 261,453 |
| Private/Rental | $6,732,529$ | $6,148,493$ | $5,482,056$ |
| Shore | $10,680,340$ | $10,329,417$ | $10,369,008$ |
| Total | $\mathbf{4 7 , 7 8 2 , 7 2 7}$ | $\mathbf{5 2 , 9 8 8 , 6 2 2}$ | $\mathbf{5 0 , 6 6 0 , 4 9 0}$ |

## Accountability Measures

Federal regulations include proactive accountability measures (AMs) to prevent the scup ACL from being exceeded and reactive AMs to respond when an ACL is exceeded. Proactive recreational AMs include adjusting management measures (bag limits, size limits, and season) for the upcoming fishing year, if necessary, to prevent the RHL and ACL from being exceeded. The NMFS Regional Administrator no longer has in-season closure authority for the recreational fishery if the RHL or ACL is expected to be exceeded. For reactive AMs, paybacks of ACL overages may be required in a subsequent fishing year, depending on stock status and the magnitude of the overage, as described below. ACL overages in the recreational fishery are evaluated by comparing the most recent 3-year average recreational ACL against the most recent 3 -year average of recreational dead catch (i.e., landings and dead discards). If average dead catch exceeds the average ACL, then the appropriate AM is determined based on the following criteria:

1. If the stock is overfished ( $B<1 / 2 B_{\text {MSY }}$ ), under a rebuilding plan, or the stock status is unknown: The exact amount, in pounds, by which the most recent year's recreational ACL has been exceeded will be deducted in the following fishing year, or as soon as possible once catch data are available.
2. If biomass is above the threshold, but below the target ( $1 / 2 \mathrm{~B}$ MSY $<B<B_{\text {MSY }}$ ), and the stock is not under a rebuilding plan:
a. If only the recreational ACL has been exceeded, then adjustments to the recreational bag, minimum fish size, and/or season limits will be made in the following year, or as soon as possible once catch data are available. These adjustments will take into account the performance of the measures and conditions that precipitated the overage.
b. If the Acceptable Biological Catch is exceeded in addition to the recreational ACL, then a single year deduction will be made as a payback, scaled based on stock
biomass. The calculation for the payback amount is: (overage amount)* $\left(B_{m s y}-B\right) / 1 / 2 B_{m s y}$.
3. If biomass is above the target ( $B$ > BMSY): Adjustments to the recreational bag, minimum fish size, and/or season limits will be considered for the following year, or as soon as possible once catch data are available. These adjustments will take into account the performance of the measures and conditions that precipitated the overage.

The most recent three years of recreational catch data available are 2017-2019, years in which the recreational ACLs were set using assessments that used the pre-revision MRIP data; therefore, it is necessary to use catch estimates based on the old MRIP estimation methodology to compare recreational catch to the ACLs. Recreational catch was below the recreational ACLs for scup from 2017-2018. Recreational catch estimates are not available using the old MRIP methodology for 2019, therefore 2019 recreational catch cannot be evaluated against the ACL and a three-year average cannot be calculated. Based on recreational performance from 2017-2018, an AM has not been triggered.

## Staff Recommendation

Last year, the MC discussed the restrictions that would be needed to constrain harvest to the RHL in 2020 due to the changes in the MRIP estimation methodology. The scale of these impacts could not be accurately predicted prior to completion of the operational stock assessment in the summer of 2019. This left the Council and Board with little time to consider how to most appropriately respond to the changes in the MRIP estimates before they needed to be applied in management. The MC discussed that they would like to avoid imposing additional restrictions on anglers as management adjusts to the new MRIP numbers, especially given that SSB was $200 \%$ of the target in 2018. They felt that there was little to no risk to the stock by allowing the recreational harvest to remain at status quo for 2020 while management issues are resolved. Because of this management situation, healthy stock status, and catch projections that were below the 2020 ABC, the MC recommended status quo recreational measures in state and federal waters for scup in 2020. These considerations discussed by the MC last year remain relevant to 2021 as the summer flounder, scup, and black sea bass allocation amendment is ongoing.

Typically, staff uses preliminary partial current year recreational catch data to project harvest through the remainder of the current year. This projection is then compared to the RHL for the upcoming fishing year. This year, as described above, recreational data collection was severely limited by restrictions related to the ongoing Covid-19 pandemic. As a result, no 2020 preliminary harvest estimates are available for scup to project harvest for the year. Estimated total recreational fishing trips within the management unit are available, however, these estimates are not species specific, and in the absence of angler intercept data, effort estimates cannot be used to estimate harvest.

Without estimates of harvest in 2020, attempts at changing management measures such as bag limit, minimum size, and season in 2021 would have highly uncertain outcomes. In addition, availability of scup to anglers was likely high during 2016-2019 due to the abundant 2015 year class. Availability may have declined in 2020 due to lower than average recruitment from 20162018, further limiting comparisons to 2019 estimates. Because of this, staff recommend that status quo recreational measures be maintained for scup in 2021.


## MEMORANDUM

Date: $\quad$ December 4, 2020
To: Chris Moore, Executive Director
From: Julia Beaty, staff
Subject: Black Sea Bass Recreational Measures for 2021

On Tuesday, December 15, the Council and Board will consider 2021 recreational management measures for black sea bass. Materials listed below are provided for the Council and Board's discussion of this agenda item.

Some materials are behind the scup recreational measures tab (Tab 5).

1) Summary of November 16, 2020 Monitoring Committee meeting (behind Tab 5).
2) Summary of November 10, 2020 Advisory Panel meeting (behind Tab 5).
3) Email comments from advisors and others on summer flounder, scup, and/or black sea bass recreational measures received by December 2, 2020 (behind Tab 5).
4) Staff memo on 2021 recreational black sea bass measures dated November 4, 2020.

Any additional public comments received by the supplemental comment deadline of December 10, 2020 will be posted separately to the Council's meeting page.

## The following documents are located behind Tab 5:

- Summary of November 16, 2020 Monitoring Committee meeting
- Summary of November 10, 2020 Advisory Panel meeting
- Email comments from advisors and others on summer flounder, scup and/or black sea bass recreational measures received by December 2, 2020



# MEMORANDUM 

Date: $\quad$ November 4, 2020
To: Chris Moore, Executive Director
From: Julia Beaty, Staff
Subject: Black Sea Bass Recreational Management Measures for 2021

## Background and Summary

The information in this memo is intended to assist the Monitoring Committee (MC), Advisory Panels, the Mid-Atlantic Fishery Management Council (Council) and the Atlantic States Marine Fisheries Commission's (Commission’s) Summer Flounder, Scup, and Black Sea Bass Management Board (Board) in developing recommendations for federal waters black sea bass size limits, possession limits, and open/closed seasons for 2021.
In August 2020, the Council and the Board reviewed the previously adopted 2021 black sea bass catch and landings limits. They adopted revised 2021 catch and landings limits based on the recommendations of the Scientific and Statistical Committee (SSC) and the MC. These revisions reflect a change in the Council's risk policy which defines the acceptable risk of overfishing associated with the acceptable biological catch (ABC) level and also account for a change in the projected discard calculations used to set the catch and landings limits. ${ }^{1}$
Based on these revisions, the 2021 black sea bass recreational harvest limit (RHL) increased by $9 \%$, from 5.81 million pounds to 6.34 million pounds. The rule implementing the revised 2021 catch and landings limits is expected to publish prior to the end of 2020.
Each year, the MC is tasked with recommending recreational management measures (possession limits, size limits, and seasons) to constrain harvest to the RHL. The Council and Board agree to federal waters recreational management measures for the upcoming year that apply throughout federal waters from Maine through Cape Hatteras, North Carolina. State waters measures will be determined through the Commission process in early 2021.

Typically, staff uses preliminary partial current year recreational catch data to project harvest through the remainder of the current year. This projection is then compared to the RHL for the upcoming year. As described below, recreational data collection in 2020 was severely limited by restrictions related to the ongoing Covid-19 pandemic. As a result, no 2020 preliminary harvest estimates are available for black sea bass to project 2020 harvest. Estimated total recreational fishing trips within the management unit are available and described below; however, these

[^6]estimates are not species specific, and in the absence of angler intercept data, effort estimates cannot be used to estimate harvest.

In July 2018, MRIP released revisions to their time series of recreational catch and harvest estimates based on adjustments for a revised angler intercept methodology and a new effort estimation methodology, namely, a transition from a telephone-based effort survey to a mailbased effort survey. The revised estimates for most years are several times higher than the previous estimates for shore and private boat modes, substantially raising the overall black sea bass catch and harvest estimates.

The revised MRIP estimates were incorporated into the 2019 black sea bass operational stock assessment and contributed to increased biomass estimates compared to the 2016 benchmark assessment. The impact of the MRIP data on the stock assessment is one of multiple factors which resulted in a 59\% increase in the RHL in 2020 compared to 2019. The revised 2021 RHL represents a $9 \%$ increase compared to the 2020 RHL and is the highest RHL ever implemented for black sea bass. However, because the new MRIP data show that black sea bass harvest is much higher than previously thought, this increase in the RHL will not allow for more liberal recreational management measures and increased recreational harvest. For example, an estimated 8.61 million pounds of black sea bass were harvested in the recreational fishery in 2019, 36\% greater than the revised 2021 RHL of 6.34 million pounds (Table 1).

Given challenges associated with transitioning to management based on the new MRIP data, high availability of black sea bass to anglers, and a very healthy stock status, the Council and Board agreed to leave recreational management measures remain unchanged in 2020 compared to 2019 to allow more time to gradually transition to a management system that accounts for the new MRIP data. These considerations remain relevant for 2021 recreational management measures. It is worth noting that an ongoing amendment to consider revising the commercial/recreational allocations for black sea bass, as well as summer flounder and scup, in light of the revised MRIP data and other considerations, remains a high priority for the Council and Board, with final action expected in 2021 and implementation for 2022.

As described below, staff recommend status quo recreational black sea bass bag, size, and season limits for 2021.

## Past RHLs and Management Measures

Joint Council and Board management of the recreational black sea bass fishery, including use of RHLs, began in 1998. The black sea bass RHLs have ranged from a low of 1.14 million pounds in 2009 to a high of 6.34 million pounds in 2021 (pending approval by the National Marine Fisheries Service, Table 1). Prior to approval of the 2016 benchmark stock assessment, the black sea bass RHLs were based on a constant catch approach (the 2010-2015 RHLs) or a data-limited analysis (the 2016 RHL). Since 2017, the RHLs have been based on a peer reviewed and approved stock assessment. This assessment was last updated in August 2019 with data through 2018.

Until 2010, the recreational black sea bass fishery was managed with identical management measures in state and federal waters, as dictated by the Fishery Management Plan. From 2011 through 2018, the Commission developed a series of addenda to enable state-specific and regional management measures to be used in state waters under a process referred to as "ad hoc
regional management." With approval of the Commission's Addendum XXXII in 2018, an addendum is no longer needed each time the state measures change. The ad hoc approach has essentially resulted in two regions: the northern states of Massachusetts through New Jersey, which set state-specific measures, and the southern states of Delaware through North Carolina (north of Cape Hatteras), which typically set measures consistent with federal measures given that most harvest from those states is taken in federal waters (Table 2). Most recreational harvest in Massachusetts through New York occurs in state waters (Table 2) and the state waters measures in those states have generally been more restrictive than the federal waters measures (Table 1, Table 3); thus, landings in those states have been constrained primarily by state measures rather than federal measures. Most New Jersey harvest occurs in federal waters (Table 2); however, the state waters measures in New Jersey are more restrictive than the federal measures (Table 1, Table 3); therefore, anglers landing their catch in New Jersey are constrained more by the state waters measures than the federal measures.

Where state and federal measures differ, federal party/charter permit holders are bound by whichever regulations are more restrictive, regardless of where they fish. However, the federal black sea bass party/charter permit is an open access permit, which enables vessels to drop their federal permit for part of the year and later reapply for the permit. Some vessel owners will drop their federal waters permit when state waters are open but federal waters are closed, allowing them to fish in state waters during federal closures.

The approach used to modify management measures to prevent RHL overages has not been consistent from year to year. Reductions in recreational harvest were required each year from 2013 through 2015, requiring implementation of more restrictive bag, size, and/or season limits in some or all states and in federal waters, depending on the year. Most harvest in recent years (e.g., approximately 95\% in weight during 2010-2019) came from Massachusetts - New Jersey (Figure 1); therefore, these states took greater reductions in 2015 and 2016 compared to Delaware - North Carolina and compared to federal waters. In 2016 and 2017, some minor changes were made to the measures in some states. Some liberalizations took place in 2018 (e.g., removal of the fall federal waters closure and liberalizations in some state waters seasons). State and federal waters measures remained unchanged during 2018-2020 with the exception of minor season adjustments in Massachusetts to allow for a Saturday opening without meaningfully impacting overall harvest and in Virginia and North Carolina to account for harvest during the special February recreational opening (Table 1, Table 3).

Starting in 2018, the Council and Board provided states the opportunity to open their recreational black sea bass fisheries during February for the first time since 2013 under specific constraints. States must opt-in to this fishery. Participating states have a 12.5 inch minimum fish size limit and a 15 fish possession limit during February, identical to the federal waters measures during the rest of the year. Participating states may need to adjust their recreational management measures during the rest of the year to account for expected February harvest to help ensure that the coastwide RHL is not exceeded. Expected February harvest by state is defined as shown in Table 4 (note that the Council and Board revised these values for 2021 to account for changes to the MRIP data). At this time, it is not known which states intend to participate in the February 2021 recreational fishery. In 2018-2020, only Virginia and North Carolina participated in this optional opening. In 2018 and 2019, February harvest accounted for $0.09 \%$ and $0.12 \%$, respectively, of total estimated recreational harvest from Maine through Cape Hatteras, North

Carolina. Therefore, it is assumed that the February 2018-2019 recreational opening did not pose a noteworthy risk to the black sea bass stock. ${ }^{2}$ Final estimates for 2020 are not yet available and, as described in more detail below, are likely to be incomplete and uncertain.

## Recreational Catch and Landings Trends

Between 1982 and 2019, recreational black sea bass catch from Maine through Cape Hatteras, North Carolina was highest in 2017 at 41.19 million fish and lowest in 1984 at 4.73 million fish. Harvest in numbers of fish was highest in 1986 at 19.28 million fish and lowest in 1998 at 1.56 million fish. Harvest in weight was highest in 2016 at 12.05 million pounds and lowest in 1998 at 1.77 million pounds. On average during 2010-2019, $85 \%$ of black sea bass caught in the recreational fishery were released (Table 5).

These harvest estimates should not be compared to the RHLs prior to 2020 as these RHLs did not account for the revisions to the MRIP data. Harvest estimates based on the "old" MRIP data are provided in Table 1 for comparison against the RHLs through 2018. Harvest estimates for 2019 in the "old" MRIP currency are not available at this point in time.

## 2020 Recreational Data

Typically, staff uses preliminary MRIP data in the current year for waves 1-4 (January through August) to project catch and harvest through the rest of the year. These projections are then compared to the RHL for the upcoming year to evaluate how harvest may need to be adjusted to prevent RHL overages in the upcoming year. However, projections of 2020 harvest cannot be generated because 2020 catch data from MRIP are not available due to limited Access Point Angler Intercept Survey (APAIS) sampling related to Covid-19.

MRIP effort sampling through the mail-based Fishery Effort Survey (FES), continued uninterrupted in 2020. Coastwide data on the estimated number of angler trips are available for the first four waves of 2020 (January-August). These data can be broken down by wave and fishing mode; however, they are generated for all recreational species combined and are not available by target species given that directed trip data are generated using information from APAIS. Figure 2 and Table 6 summarize estimated combined-species recreational trips for waves 1-4 between 2018-2020 for Maine through North Carolina. These data indicate that estimated total trips in waves 1-4 rose by 11\% between 2018 and 2019, and then fell $4 \%$ between 2019 and 2020.

Between 2019 and 2020, trips in wave 2 decreased by 19\%, trips in wave 3 decreased by $4 \%$, and trips in wave 4 increased by $2 \%$. Estimates of party/charter trips in waves 1-4 decreased by 31\% between 2019 and 2020. Private/rental trips increased by an estimated 2\%, and shore mode trips decreased by 7\%.
While these data can give managers a general sense of how effort in 2020 compares to 2018 and 2019, they cannot be used to make conclusions about black sea bass catch or harvest in 2020. Given the lack of intercept survey data, no information is available on recreational catch rates, discard rates, or size/weight of landed and discarded scup in 2020. APAIS information is also required to account for and adjust for non-resident fishing effort and account for area fished, which is important for generating harvest and catch estimates. MRIP is in the process of

[^7]evaluating possible methods for generating estimates of 2020 catch, including modeling approaches, the feasibility of imputation, and using data proxies such as the previous year's data. These approaches will take some time to develop, and any catch estimates that can be generated for 2020 are not likely to be available until at least early 2021.

## Accountability Measures

Federal regulations include accountability measures (AMs) for when the recreational black sea bass ACL is exceeded as well as proactive AMs to help prevent the ACL from being exceeded. Proactive AMs include adjustments to the management measures (bag limits, size limits, and season) for the upcoming fishing year, if necessary, to prevent the RHL and ACL from being exceeded. The regulations do not allow for in-season closure of the recreational fishery if the RHL or ACL is expected to be exceeded. Paybacks of ACL overages may be required in a subsequent fishing year, depending on stock status and the scale of the overage, as described below. ACL overages in the recreational fishery are evaluated by comparing the most recent 3 year average recreational ACL against the most recent 3-year average of recreational catch (i.e., landings and dead discards). If average catch exceeds the average ACL, then the appropriate AM is determined based on the following criteria:

1. If the stock is overfished ( $B<1 / 2$ BMSY), under a rebuilding plan, or the stock status is unknown: The exact amount, in pounds, by which the most recent year's recreational ACL has been exceeded, will be deducted in the following fishing year, or as soon as possible once catch data are available.
2. If biomass is above the threshold, but below the target ( $1 / 2 \mathrm{~B}$ msy $<\mathrm{B}<\mathrm{B}$ msy), and the stock is not under a rebuilding plan:
a. If only the recreational ACL has been exceeded, then adjustments to the recreational management measures (bag, size, and seasonal limits) would be made in the following year, or as soon as possible once catch data are available. These adjustments would take into account the performance of the measure and conditions that precipitated the overage.
b. If the $A B C$ is exceeded in addition to the recreational $A C L$, then a single year deduction will be made as a payback, scaled based on stock biomass. The calculation for the payback amount is: (overage amount) * $\left(B_{m s y}-B\right) / 1 / 2 B_{m s y}$.
3. If biomass is above the target ( $\mathrm{B}>\mathrm{B}$ msy): Adjustments to the recreational management measures (bag, size, and seasonal limits) would be considered for the following year, or as soon as possible once catch data are available. These adjustments would take into account the performance of the measures and conditions that precipitated the overage.

The 2017-2019 recreational ACLs did not account for the recent revisions to the MRIP estimation methodology; therefore, it is necessary to use catch estimates based on the old MRIP estimation methodology to compare recreational catch to the ACLs. Based on these data, average recreational catch during 2017-2018 exceeded the average 2017-2018 recreational ACL by 4\% (Table 7). Recreational catch estimates are not currently available using the old MRIP methodology for 2019, therefore 2019 recreational catch cannot be evaluated against the ACL and a three-year average cannot be calculated. Based on recreational performance from 20172018, an AM has been triggered.

Given that biomass is currently above the target, the AM regulations require consideration of adjustments to the recreational bag, size, and/or season limits in response to the ACL overage, taking into account the performance of the measures and conditions that precipitated the overage. The MC should consider this when developing recommendations for 2020 recreational measures. Given that the overage is only $4 \%$ and given the considerations provided in this memo related to maintaining status quo management measures in 2021, the MC may wish to consider no changes to management measures in 2021 in response to this AM.

It is important to note that the National Marine Fisheries Service (NMFS) will perform their own AM evaluation with numbers that may differ from those shown in this memo.

## Black Sea Bass Conservation Equivalency

Framework 14/Addendum XXXI allowed for use of slot limits (i.e., a maximum and minimum size limit) and conservation equivalency for black sea bass starting in 2020. Conservation equivalency would allow federal waters measures to be waived in favor of the measures in the states where anglers land their catch. If conservation equivalency is recommended by the Council and Board, they should also recommend a set of non-preferred coastwide measures and precautionary default measures. If implemented on a coastwide basis (i.e., in both state and federal waters from Maine through Cape Hatteras, North Carolina), the non-preferred coastwide measures should prevent harvest from exceeding the RHL. Individual states or regions would develop measures that, when taken as a whole, are the conservation equivalent of the nonpreferred coastwide measures, meaning that they are expected to result in the same level of harvest as the non-preferred coastwide measures. The precautionary default measures are intended to be restrictive enough to deter states/regions from implementing measures which are not approved through the conservation equivalency process. The Council did not recommend use of conservation equivalency for black sea bass in 2020. Given the considerations described elsewhere in this memo pertaining to status quo recreational management measures in 2021, this form of conservation equivalency is not recommended by staff for use for black sea bass in 2021.

## Staff Recommendation

In the fall of 2019, the MC discussed restrictions that would be needed to constrain harvest to the RHL in 2020 due to the changes in the MRIP estimation methodology. At the time, it appeared that a $20 \%$ reduction in harvest would be needed to constrain harvest to the 2020 RHL. The need for a $20 \%$ reduction in harvest despite a $59 \%$ increase in the RHL from 2019 to 2020 was driven in large part by the transition to the new MRIP estimation methodology which resulted in a major change in our understanding of the scale of recreational harvest. The increased harvest estimates were not due to changes in fishing effort, but rather due to changes in the estimation methodology. Now that the new MRIP estimates have been incorporated into a stock assessment, they must be used in the management process. The scale of these impacts (i.e., the percent change in the RHL compared to the reduction in harvest needed) could not be accurately predicted prior to completion of the operational stock assessment in the summer of 2019. This left the Council and Board with little time to consider how to most appropriately respond to these changes before the new MRIP estimates must be used in management. For example, the allocation of total allowable black sea bass landings between the commercial and recreational sectors does not account for the new MRIP data. The Council and Board continue to make progress on an amendment to consider revisions to those allocations; however, any changes are not expected to be implemented until 2022.

In the fall of 2019, the MC agreed that they wished to avoid imposing additional restrictions on anglers during this transition period, especially given that black sea bass spawning stock biomass was $237 \%$ of the target level in 2018. At the time, status quo recreational management measures were expected to result in an overage of the 2020 ABC ; however, the MC felt that this would pose minimal long-term risk to the stock given the very high biomass level. This was intended as a temporary solution to allow the Council and Board more time to fully transition to use of the new MRIP data, including consideration of their use in the commercial/recreational allocations which are being re-evaluated through an ongoing amendment. The Council and Board agreed and adopted status quo recreational management measures in 2020. As previously stated, final 2020 catch data are not yet available and are expected to be incomplete for the recreational fishery due to the impacts of the Covid-19 pandemic; therefore, it is not yet known if the 2020 ABC or OFL will be exceeded. However, it is worth noting that the recently revised 2021 ABC is $16 \%$ higher than the 2020 ABC due to the change in the Council's risk policy; therefore, there may be a lower risk of exceeding the 2021 ABC under status quo recreational management measures compared to in 2020.

The Covid-19 pandemic has impacted both commercial and recreational catch in 2020 and is likely to continue to impact catch in 2021; however, the impacts are likely different for the two sectors and are not well quantified for the recreational sector. The black sea bass commercial fishery tends to land close to the full commercial quota; however, commercial landings may not reach the 2020 quota as a result of the impacts of the Covid-19 pandemic on market demand.

Typically, staff uses preliminary partial current year recreational catch data to project harvest through the remainder of the current year. This projection is then compared to the RHL for the upcoming year. As described above, recreational data collection in 2020 was severely limited by restrictions related to the ongoing Covid-19 pandemic. As a result, no 2020 preliminary harvest estimates are available for black sea bass to project 2020 harvest. Estimated total recreational fishing trips within the management unit are available, however, these estimates are not species specific, and in the absence of angler intercept data, effort estimates cannot be used to estimate harvest. As shown in Table 8, black sea bass tends to be the primary target species on about 1$2 \%$ of recreational fishing trips from Maine through North Carolina. Without estimates of harvest in 2020, attempts at changing management measures such as bag limit, minimum size, and season in 2021 would have highly uncertain outcomes.

For all these reasons, staff recommend an additional year of status quo recreational management measures in 2021.

Table 1: ABCs, recreational ACLs, RHLs, recreational harvest based on old and revised MRIP data, and federal waters management measures for the black sea bass recreational fishery, 1997-2020. All measures are in millions of pounds, unless otherwise noted.

| Year | ABC | $\begin{aligned} & \text { Rec. } \\ & \text { ACL } \end{aligned}$ | RHL ${ }^{\text {a }}$ | $\begin{gathered} \text { Harvest } \\ \text { (old } \\ \text { MRIP) } \\ \hline \end{gathered}$ | $\begin{gathered} \text { \% over/ } \\ \text { under RHL } \\ \text { (old MRIP) } \end{gathered}$ | Harvest (revised MRIP) ${ }^{\text {c }}$ | Open <br> season | Size <br> limit |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1998 | - | - | 3.15 | 1.29 | -59\% | 1.77 | $\begin{gathered} \hline 1 / 1-7 / 30 \\ 8 / 16-12 / 31 \end{gathered}$ | 10" | - |
| 1999 | - | - | 3.15 | 1.7 | -46\% | 2.16 | 1/1-12/31 |  | - |
| 2000 | - | - | 3.15 | 4.12 | +31\% | 4.65 |  |  | - |
| 2001 | - | - | 3.15 | 3.6 | +14\% | 6.24 | $\begin{gathered} 1 / 1-2 / 28 \\ 5 / 10-12 / 31 \end{gathered}$ | 11" | 25 |
| 2002 | - | - | 3.43 | 4.44 | +29\% | 5.67 | 1/1-12/31 | 11.5" |  |
| 2003 | - | - | 3.43 | 3.45 | +1\% | 5.67 | $\begin{gathered} \hline 1 / 1-9 / 1 \\ 9 / 16-11 / 30 \end{gathered}$ |  |  |
| 2004 | - | - | 4.01 | 1.97 | -51\% | 3.09 | 1/1-9/7 |  |  |
| 2005 | - | - | 4.13 | 1.88 | -54\% | 3.21 | 9/22-11/30 | 12" |  |
| 2006 | - | - | 3.99 | 1.8 | -55\% | 2.74 | 1/1-12/31 |  |  |
| 2007 | - | - | 2.47 | 2.17 | -12\% | 3.34 |  |  |  |
| 2008 | - | - | 2.11 | 2.03 | -4\% | 3.57 |  |  |  |
| 2009 | - | - | 1.14 | 2.56 | +125\% | 5.70 |  | 12.5" |  |
| 2010 | 4.50 | - | 1.83 | 3.19 | +74\% | 8.07 | 1/1-10/5 |  |  |
| 2011 | 4.50 | - | 1.84 | 1.17 | -36\% | 3.27 | $\begin{gathered} \hline 5 / 22-10 / 1 \\ 11 / 1-12 / 31 \end{gathered}$ |  |  |
| 2012 | 4.50 | - | 1.32 | 3.18 | +141\% | 7.04 | $\begin{gathered} \hline 1 / 1-2 / 29 \\ 5 / 19-10 / 14 \\ 11 / 1-12 / 31 \\ \hline \end{gathered}$ |  | $\begin{gathered} 15 \text { or } \\ 25^{\mathrm{d}} \end{gathered}$ |
| 2013 | 5.50 | 2.90 | 2.26 | 2.46 | +9\% | 5.69 | $\begin{aligned} & \hline 5 / 19-10 / 14 \\ & 11 / 1-12 / 31 \\ & \hline \end{aligned}$ |  | 20 |
| 2014 | 5.50 | 2.90 | 2.26 | 3.67 | +62\% | 7.24 | $\begin{gathered} 5 / 19-9 / 21 \\ 10 / 18-12 / 31 \end{gathered}$ |  | 15 |
| 2015 | 5.50 | 2.90 | 2.33 | 3.79 | +63\% | 9.06 | $\begin{gathered} 5 / 15-9 / 21 \\ 10 / 22-12 / 31 \end{gathered}$ |  |  |
| 2016 | 6.67 | 3.52 | 2.82 | $5.19{ }^{\text {e }}$ | +84\% | 12.05 |  |  |  |
| 2017 | 10.47 | 5.38 | 4.29 | $4.16{ }^{\text {e }}$ | -3\% | 11.50 |  |  |  |
| 2018 | 8.94 | 4.59 | 3.66 | 3.82 | +4\% | 7.92 | $\begin{gathered} 2 / 1-2 / 28 \\ 5 / 15-12 / 31 \end{gathered}$ |  |  |
| 2019 | 8.94 | 4.59 | 3.66 | - | - | 8.61 |  |  |  |
| 2020 | 15.07 | 8.09 | 5.81 | - | - | - |  |  |  |
| $2021{ }^{\text {f }}$ | 17.45 | 7.93 | 6.34 | - | - | - | TBD | TBD | TBD |

${ }^{\text {a }}$ RHLs for 2006-2014 are adjusted for Research Set Aside.
${ }^{\text {b }}$ Values prior to 2004 are for ME-NC and for 2004-2018 are for Maine through Cape Hatteras, North Carolina.
${ }^{\text {c All values are for Maine through Cape Hatteras, North Carolina based on MRIP data downloaded June 18, } 2020 .}$
${ }^{\text {d }} 15$ fish from 1/1-2/29; 25 fish from 5/19-10/14 and 11/1-12/31.
${ }^{e}$ The Technical Committee agreed that the 2016 and 2017 estimates are outliers driven by the impact of implausible estimates for New York in wave 6 in 2016 (all modes) and the private/rental mode in New Jersey in wave 3, 2017.
${ }^{\mathrm{f}}$ Pending approval and implementation by NMFS.

Table 2: Average proportion of black sea bass recreational harvest from federal waters, 2015-2019, based on MRIP data accessed June 18, 2020. Maine and New Hampshire had no estimated black sea bass harvest during 2015-2019.

| State | Proportion of harvest from <br> federal waters (numbers of fish) | Proportion of harvest from federal <br> waters (weight of fish) |
| :---: | :---: | :---: |
| MA | $9 \%$ | $11 \%$ |
| RI | $21 \%$ | $21 \%$ |
| CT | $7 \%$ | $8 \%$ |
| NY | $46 \%$ | $50 \%$ |
| NJ | $66 \%$ | $64 \%$ |
| DE | $92 \%$ | $91 \%$ |
| MD | $77 \%$ | $76 \%$ |
| VA | $71 \%$ | $76 \%$ |
| NC | $86 \%$ | $87 \%$ |
| ME-NC $^{\mathbf{a}}$ | $40 \%$ | $39 \%$ |
| ME-NJ $^{\text {DE-NC }}$ | $38 \%$ | $37 \%$ |

${ }^{a}$ Through Cape Hatteras

Table 3: State waters black sea bass recreational measures in 2018-2020. Measures were the same across all years unless otherwise noted.

| State | Min. <br> Size | Bag <br> Limit | Open Season |
| :---: | :---: | :---: | :---: |
| Maine | $13 "$ | 10 <br> fish | May 19 - Sept 21; Oct 18 - Dec 31 |
| New Hampshire | $13 "$ | 10 <br> fish | Jan 1 - Dec 31 |
| Massachusetts | $15 "$ | 5 fish | 2018: May 19 - Sept 12 |
| Rhode Island | $15 "$ | 3 fish | 2019 \& 2020: May 18 - Sept 8 |
| Jun 24 - Aug 31 |  |  |  |



Figure 1: Percentage of coastwide recreational black sea bass harvest by state, 2010-2019 based on MRIP data accessed June 18, 2020.

Table 4: Preliminary expected February recreational harvest by state. Values were revised for 2021 to account for the updated MRIP data.

| State | Values used for 2018-2020 | Values for 2021 |
| :---: | :---: | :---: |
| RI | 288 | 1,146 |
| CT | 57 | 158 |
| NY | 9,410 | 41,871 |
| NJ | 82,850 | 405,913 |
| DE | 1,297 | 6,418 |
| MD | 541 | 2,227 |
| VA | 5,496 | $24,891^{\text {a }}$ |
| NC $^{\text {b }}$ | 62 | 1,369 |
| Total | $\mathbf{1 0 0 , 0 0 0}$ | $\mathbf{4 8 3 , 9 9 3}$ |

${ }^{\text {a }}$ The Council and Board agreed that Virginia could use an alternative value based on the results of their 2018-2020 monitoring program for the February fishery.
${ }^{\mathrm{b}}$ North of Cape Hatteras

Table 5: Recreational black sea bass catch and harvest by year, Maine through Cape Hatteras, NC, 19822019 based on new MRIP estimates. Catch includes landings as well as both live and dead discards. Percent released includes all released fish, including those that survive and those that are presumed to die post-release. Preliminary 2020 MRIP estimates and projections are unavailable due to Covid-19 related data gaps.

| Year | Catch (millions of fish) | Harvest (millions of fish) | Harvest (millions of lb) | $\begin{gathered} \hline \% \\ \text { Released } \end{gathered}$ | Avg. weight of landed fish (lb) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1982 | 12.90 | 10.72 | 10.31 | 17\% | 0.96 |
| 1983 | 9.05 | 5.16 | 4.86 | 43\% | 0.94 |
| 1984 | 4.73 | 2.51 | 1.91 | 47\% | 0.76 |
| 1985 | 9.33 | 4.53 | 3.66 | 51\% | 0.81 |
| 1986 | 29.71 | 19.28 | 11.02 | 35\% | 0.57 |
| 1987 | 5.59 | 2.57 | 1.83 | 54\% | 0.71 |
| 1988 | 10.29 | 3.51 | 3.58 | 66\% | 1.02 |
| 1989 | 11.65 | 6.66 | 5.30 | 43\% | 0.80 |
| 1990 | 14.46 | 5.12 | 3.91 | 65\% | 0.76 |
| 1991 | 15.14 | 6.16 | 4.84 | 59\% | 0.79 |
| 1992 | 11.92 | 4.70 | 3.77 | 61\% | 0.80 |
| 1993 | 12.22 | 7.11 | 5.66 | 42\% | 0.80 |
| 1994 | 10.74 | 4.18 | 3.80 | 61\% | 0.91 |
| 1995 | 19.27 | 6.88 | 5.24 | 64\% | 0.76 |
| 1996 | 14.05 | 7.20 | 7.96 | 49\% | 1.11 |
| 1997 | 15.65 | 6.56 | 6.34 | 58\% | 0.97 |
| 1998 | 8.42 | 1.56 | 1.77 | 81\% | 1.14 |
| 1999 | 14.49 | 1.64 | 2.16 | 89\% | 1.31 |
| 2000 | 25.65 | 4.26 | 4.65 | 83\% | 1.09 |
| 2001 | 20.86 | 4.27 | 6.24 | 80\% | 1.46 |
| 2002 | 24.98 | 4.58 | 5.67 | 82\% | 1.24 |
| 2003 | 18.28 | 4.08 | 5.67 | 78\% | 1.39 |
| 2004 | 12.90 | 2.35 | 3.09 | 82\% | 1.32 |
| 2005 | 12.50 | 2.00 | 3.21 | 84\% | 1.60 |
| 2006 | 13.09 | 1.80 | 2.74 | 86\% | 1.52 |
| 2007 | 14.58 | 2.14 | 3.34 | 85\% | 1.56 |
| 2008 | 24.19 | 2.46 | 3.57 | 90\% | 1.45 |
| 2009 | 23.12 | 3.92 | 5.70 | 83\% | 1.45 |
| 2010 | 26.42 | 5.10 | 8.07 | 81\% | 1.58 |
| 2011 | 12.47 | 1.78 | 3.27 | 86\% | 1.83 |
| 2012 | 34.95 | 3.69 | 7.04 | 89\% | 1.91 |
| 2013 | 25.78 | 3.02 | 5.69 | 88\% | 1.88 |
| 2014 | 23.89 | 3.97 | 7.24 | 83\% | 1.82 |
| 2015 | 24.11 | 4.94 | 9.06 | 80\% | 1.83 |
| 2016 | 35.80 | 5.84 | 12.05 | 84\% | 2.06 |
| 2017 | 41.19 | 5.70 | 11.50 | 86\% | 2.02 |
| 2018 | 24.99 | 3.99 | 7.92 | 84\% | 1.98 |
| 2019 | 32.32 | 4.38 | 8.61 | 86\% | 1.97 |



Figure 2: Estimated wave 1-4 angler trips for all species, ME-NC, 2018-2020 for a) all trips combined; b) trips by wave, and c) trips by fishing mode.

Table 6: Total estimated angler trips by wave and fishing mode, 2018-2020, waves 1-4, ME-NC. Includes all trips regardless of species caught or targeted.

|  | $\mathbf{2 0 1 8}$ | $\mathbf{2 0 1 9}$ | $\mathbf{2 0 2 0}$ |
| :---: | :---: | :---: | :---: |
| Wave 1 (Jan/Feb) | $\mathbf{1 , 1 9 8 , 4 1 6}$ | $\mathbf{1 , 3 6 7 , \mathbf { 2 7 0 }}$ | $\mathbf{1 , 1 1 3 , 3 4 5}$ |
| Party/Charter | 284 | 757 | 1,935 |
| Private/Rental | 396,807 | 363,376 | 371,757 |
| Shore | 801,325 | $1,003,137$ | 739,653 |
| Wave 2 (Mar/Apr) | $\mathbf{2 1 , 4 3 4 , 1 5 8}$ | $\mathbf{2 5 , 0 0 0 , 1 2 2}$ | $\mathbf{2 5 , 5 5 1 , 4 0 7}$ |
| Party/Charter | 563,025 | 675,081 | 484,402 |
| Private/Rental | $7,946,904$ | $8,583,014$ | $10,323,820$ |
| Shore | $12,924,229$ | $15,742,027$ | $14,743,185$ |
| Wave 3 (May/Jun) | $\mathbf{7 , 3 5 6 , 3 5 8}$ | $\mathbf{9 , 7 5 5 , 0 4 8}$ | $\mathbf{7 , 8 8 3 , 2 2 1}$ |
| Party/Charter | 26,347 | 28,413 | 3,164 |
| Private/Rental | $1,886,247$ | $3,209,239$ | $2,441,457$ |
| Shore | $5,443,764$ | $6,517,396$ | $5,438,600$ |
| Wave 4 (Jul/Aug) | $\mathbf{1 7 , 7 9 3 , 7 9 5}$ | $\mathbf{1 6 , 8 6 6 , 1 8 2}$ | $\mathbf{1 6 , 1 1 2 , 5 1 7}$ |
| Party/Charter | 380,926 | 388,272 | 261,453 |
| Private/Rental | $6,732,529$ | $6,148,493$ | $5,482,056$ |
| Shore | $10,680,340$ | $10,329,417$ | $10,369,008$ |
| Total | $\mathbf{4 7 , 7 8 2 , 7 2 7}$ | $\mathbf{5 2 , 9 8 8}, 622$ | $\mathbf{5 0 , 6 6 0 , 4 9 0}$ |

Table 7: AM evaluation for the recreational black sea bass fishery, comparing recreational catch from Maine through Cape Hatteras, North Carolina based on the old MRIP estimates to the recreational ACL. All values are in millions of pounds. All values shown in this table may differ from those ultimately used by NMFS for ACL evaluation. ${ }^{3}$

| Year | Rec. <br> ACL | Rec. <br> landings | Rec. dead <br> discards | Rec. <br> Catch | \% Over/Under <br> ACL |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2017 | 5.38 | 4.16 | 1.27 | 5.43 | $+1 \%$ |
| 2018 | 4.59 | 3.82 | 1.10 | 4.92 | $+7 \%$ |
| 2019 | 4.59 | Not available in "old" MRIP units |  | Unknown |  |
| $2017-2018 ~ a v g$ | $\mathbf{4 . 9 9}$ | $\mathbf{3 . 9 9}$ | $\mathbf{1 . 1 9}$ | $\mathbf{5 . 1 8}$ | $\mathbf{4 \%}$ |

[^8]Table 8: Number of recreational fishing trips for which black sea bass was the primary target species, Maine - North Carolina, based on MRIP data accessed 11/4/2020.

| Year | Number of Directed Black <br> Sea Bass Trips | Directed Black Sea Bass Trips As <br> Percent of All Recreational Trips |
| :---: | :---: | :---: |
| $\mathbf{2 0 1 0}$ | $1,105,356$ | $1.11 \%$ |
| $\mathbf{2 0 1 1}$ | 464,202 | $0.48 \%$ |
| $\mathbf{2 0 1 2}$ | 705,492 | $0.75 \%$ |
| $\mathbf{2 0 1 3}$ | 675,330 | $0.76 \%$ |
| $\mathbf{2 0 1 4}$ | 831,221 | $0.93 \%$ |
| $\mathbf{2 0 1 5}$ | $1,261,483$ | $1.48 \%$ |
| $\mathbf{2 0 1 6}$ | $1,114,685$ | $1.28 \%$ |
| $\mathbf{2 0 1 7}$ | $1,169,560$ | $1.37 \%$ |
| $\mathbf{2 0 1 8}$ | $1,170,462$ | $1.65 \%$ |
| $\mathbf{2 0 1 9}$ | $1,383,702$ | $1.78 \%$ |
| $\mathbf{2 0 1 0 - 2 0 1 9} \mathbf{~ a v g}$ | 988,149 | $1.16 \%$ |



## MEMORANDUM

Date: $\quad$ December 3, 2020
To: $\quad$ Chris Moore, Executive Director
From: Kiley Dancy, Staff
Subject: Summer Flounder Recreational Measures for 2021

On Tuesday, December 15, the Council and Board will consider 2021 recreational management measures for summer flounder, including the use of either conservation equivalency or coastwide measures. Materials listed below are provided for the Council and Board's discussion of this agenda item.

Please note that some materials are behind the scup recreational measures tab (Tab 5).

1) Summary of November 16, 2020 Monitoring Committee meeting (behind Tab 5).
2) Summary of November 10, 2020 Advisory Panel meeting (behind Tab 5).
3) Email comments from advisors and others on summer flounder, scup and/or black sea bass recreational measures received by December 2, 2020 (behind Tab 5).
4) Staff memo on 2021 recreational summer flounder measures dated November 3, 2020.

Any additional public comments received by the supplemental comment deadline of December 10,2020 will be posted separately to the Council's meeting page.

## The following documents are located behind Tab 5:

- Summary of November 16, 2020 Monitoring Committee meeting
- Summary of November 10, 2020 Advisory Panel meeting
- Email comments from advisors and others on summer flounder, scup and/or black sea bass recreational measures received by December 2, 2020


MID-ATLANTIC

# MEMORANDUM 

Date: $\quad$ November 3, 2020
To: $\quad$ Chris Moore, Executive Director
From: Kiley Dancy, Staff
Subject: Summer Flounder Recreational Management Measures for 2021

## Background and Summary

The information in this memo is intended to assist the Monitoring Committee, Advisory Panels, the MidAtlantic Fishery Management Council (Council) and the Atlantic States Marine Fisheries Commission's (Commission's) Summer Flounder, Scup, and Black Sea Bass Management Board (Board) in developing recommendations for summer flounder recreational measures for 2021.

In August 2020, the Council and Board reviewed the previously adopted commercial quota and recreational harvest limit (RHL) for summer flounder for the 2021 fishing year. The Council and Board recommended a change to the implemented catch and landings limits based on the recommendations of the Scientific and Statistical Committee (SSC) which addressed the Council's December 2019 revisions to its risk policy. Based on these revisions, the previously implemented 2021 RHL for summer flounder was revised to 8.32 million pounds, an $8 \%$ increase from the 2019-2020 RHL of 7.69 million pounds. The rule implementing the revised 2021 commercial quota and RHL and has not yet published but is expected to publish prior to the end of 2020.

Each year, the Monitoring Committee (MC) is tasked with recommending recreational management measures (possession limits, size limits, and seasons) to constrain harvest to the RHL. For summer flounder, this includes recommending the use of coastwide measures (identical measures in all states and federal waters) or conservation equivalency (state- or region-specific measures in state waters, and "nonpreferred" federal measures that are waived in favor of the state measures). In either case, the combination of measures is designed to constrain harvest to the RHL.

Typically, staff uses preliminary partial current year recreational catch data to project harvest through the remainder of the current year. This projection is then compared to the RHL for the upcoming fishing year. This year, as described below, recreational data collection was severely limited by restrictions related to the ongoing Covid-19 pandemic. As a result, no 2020 preliminary harvest estimates are available for summer flounder to project harvest for the year. Estimated total recreational fishing trips within the management unit are available and described below; however, these estimates are not species specific, and in the absence of angler intercept data, effort estimates cannot be used to estimate harvest.

As described below, staff recommend that status quo recreational measures be maintained for summer flounder in 2021, including the use of regional conservation equivalency with the currently implemented measures. Staff recommend no changes to the current non-preferred coastwide measures (a 19-inch size limit, 4 fish possession limit, and open season May 15-September 15) or precautionary default measures (a 20 -inch size limit, 2 fish possession limit, and open season July 1-August 31).

## Summer Flounder Recreational Harvest and Effort, 1981-2019

In July 2018, the Marine Recreational Information Program (MRIP) released revisions to their time series of recreational catch and landings estimates based on adjustments for a revised angler intercept methodology and a new effort estimation methodology (i.e., a transition from a telephone-based effort survey to a mail-based effort survey). The revised estimates of catch and landings are several times higher than the previous estimates for shore and private boat modes, substantially raising the overall summer flounder catch and harvest estimates. On average, the new landings estimates for summer flounder (in pounds) are 1.8 times higher over the full time series (1981-2017), and 2.3 times higher in recent years (2008-2017). Recreational data included in this memo reflect revised MRIP data except where otherwise stated.

Table 1 provides the revised MRIP time series of recreational harvest (in number and weight) and total catch (in number of fish, including landings and both live and dead discards) for 1981-2019. Under the revised MRIP estimates, the time series high of harvest in pounds is 36.74 million lb ( 25.78 million fish) in 1983, with a low harvest of 5.66 million lb ( 3.10 million fish) in 1989. Total catch in number of fish peaked in 2010 at 58.89 million fish in 2010 and was lowest in 1989 at 5.06 million fish (Table 1). Table 1 also shows the percent of summer flounder released ${ }^{1}$ (relative to total catch in numbers of fish) and the mean weight of landed summer flounder each year from 1981-2019, both of which have increased over time.

[^9]Table 1: Summer flounder recreational catch and landings under revised MRIP estimates, Maine through North Carolina, 1981-2019, all waves. ${ }^{\text {a }}$ Catch includes landings as well as both live and dead discards. Percent released includes all released fish, including those that survive and those that are presumed to die post-release. Preliminary 2020 MRIP estimates and projections are unavailable due to Covid-19 related data gaps.

| Year | $\begin{gathered} \text { Catch } \\ \text { (mil fish) } \end{gathered}$ | Harvest (mil fish) | Harvest (mil lb) | \% Released | Mean Weight of Landed Fish |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1981 | 22.77 | 17.02 | 15.85 | 25\% | 0.93 |
| 1982 | 26.07 | 19.29 | 23.72 | 26\% | 1.23 |
| 1983 | 36.35 | 25.78 | 36.74 | 29\% | 1.43 |
| 1984 | 39.82 | 23.45 | 28.23 | 41\% | 1.20 |
| 1985 | 26.28 | 21.39 | 25.14 | 19\% | 1.18 |
| 1986 | 32.52 | 16.38 | 26.47 | 50\% | 1.62 |
| 1987 | 29.94 | 11.93 | 23.45 | 60\% | 1.97 |
| 1988 | 25.45 | 14.82 | 20.79 | 42\% | 1.40 |
| 1989 | 5.07 | 3.10 | 5.66 | 39\% | 1.82 |
| 1990 | 15.47 | 6.07 | 7.75 | 61\% | 1.28 |
| 1991 | 24.83 | 9.83 | 12.91 | 60\% | 1.31 |
| 1992 | 21.11 | 8.79 | 12.67 | 58\% | 1.44 |
| 1993 | 36.18 | 9.80 | 13.73 | 73\% | 1.40 |
| 1994 | 26.11 | 9.82 | 14.29 | 62\% | 1.45 |
| 1995 | 27.84 | 5.47 | 9.02 | 80\% | 1.65 |
| 1996 | 29.75 | 10.18 | 15.02 | 66\% | 1.47 |
| 1997 | 31.87 | 11.04 | 18.53 | 65\% | 1.68 |
| 1998 | 39.09 | 12.37 | 22.86 | 68\% | 1.85 |
| 1999 | 42.88 | 8.10 | 16.70 | 81\% | 2.06 |
| 2000 | 43.26 | 13.05 | 27.03 | 70\% | 2.07 |
| 2001 | 43.68 | 8.03 | 18.56 | 82\% | 2.31 |
| 2002 | 34.48 | 6.51 | 16.29 | 81\% | 2.50 |
| 2003 | 36.21 | 8.21 | 21.49 | 77\% | 2.62 |
| 2004 | 37.95 | 8.16 | 21.20 | 79\% | 2.60 |
| 2005 | 45.98 | 7.04 | 18.55 | 85\% | 2.63 |
| 2006 | 37.90 | 6.95 | 18.63 | 82\% | 2.68 |
| 2007 | 35.27 | 4.85 | 13.89 | 86\% | 2.86 |
| 2008 | 39.48 | 3.78 | 12.34 | 90\% | 3.26 |
| 2009 | 50.62 | 3.65 | 11.66 | 93\% | 3.20 |
| 2010 | 58.89 | 3.51 | 11.34 | 94\% | 3.23 |
| 2011 | 56.04 | 4.33 | 13.48 | 92\% | 3.12 |
| 2012 | 44.71 | 5.74 | 16.13 | 87\% | 2.81 |
| 2013 | 44.96 | 6.60 | 19.41 | 85\% | 2.94 |
| 2014 | 44.58 | 5.37 | 16.23 | 88\% | 3.02 |
| 2015 | 34.14 | 4.03 | 11.83 | 88\% | 2.92 |
| 2016 | 31.24 | 4.30 | 13.24 | 86\% | 3.08 |
| 2017 | 28.03 | 3.17 | 10.09 | 89\% | 3.18 |
| 2018 | 23.55 | 2.41 | 7.60 | 90\% | 3.15 |
| 2019 | 30.74 | 2.38 | 7.80 | 92\% | 3.28 |
| 2020 | N/A | N/A | N/A | N/A | N/A |

[^10]Landings by state in recent years, in thousands of pounds and thousands of fish are shown in Table 2.

Table 2: Summer flounder recreational harvest (in thousands of pounds and thousands of fish fish) for revised MRIP estimates, by state for all waves (January-December), 2016-2019. Preliminary 2020 MRIP estimates and projections are unavailable due to Covid-19 related data gaps.

|  | Thousands of Pounds |  |  |  |  | Thousands of Fish |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2016 | 2017 | 2018 | 2019 | 2020 | 2016 | 2017 | 2018 | 2019 | 2020 |
| NH | - | - | - | - | N/A | - | - | - | - | N/A |
| MA | 240 | 172 | 143 | 145 |  | 106 | 65 | 67 | 55 |  |
| RI | 341 | 597 | 604 | 837 |  | 113 | 156 | 169 | 214 |  |
| CT | 1,024 | 403 | 549 | 292 |  | 338 | 121 | 153 | 90 |  |
| NY | 5,744 | 4,214 | 2,385 | 2,442 |  | 1,800 | 1,186 | 641 | 561 |  |
| NJ | 4,718 | 3,602 | 3,155 | 3,229 |  | 1,456 | 1,211 | 1,045 | 1,108 |  |
| DE | 435 | 254 | 205 | 225 |  | 173 | 98 | 85 | 91 |  |
| MD | 98 | 171 | 122 | 206 |  | 40 | 57 | 48 | 79 |  |
| VA | 529 | 528 | 345 | 369 |  | 212 | 188 | 145 | 150 |  |
| NC | 110 | 147 | 92 | 53 |  | 65 | 91 | 58 | 35 |  |
| Coast | 13,239 | 10,088 | 7,600 | 7,798 |  | 4,302 | 3,174 | 2,413 | 2,383 |  |

${ }^{\text {a }}$ Source: Pers. Comm. with the National Marine Fisheries Service, Fisheries Statistics Division, May 12, 2020.
An average of $83 \%$ of summer flounder harvest in numbers of fish was estimated to be taken from state waters ( $0-3$ miles from shore) over the last 10 years (2010-2019; Figure 1). Over the same time period, most harvest originated from private/rental mode trips ( $86 \%$ ), while party/charter mode and shore mode accounted for an average of $5 \%$ and $9 \%$ of the harvest, respectively (Figure $2)$.


Figure 1: State vs. federal waters harvest in numbers of fish for summer flounder, 2010-2019. Fishing area information is self-reported by anglers. Source: Pers. Comm. with the National Marine Fisheries Service, Fisheries Statistics Division, May 12, 2020.


Figure 2: Summer flounder harvest by fishing mode (in numbers of fish), 2010-2019. Source: Pers. Comm. with the National Marine Fisheries Service, Fisheries Statistics Division, May 12, 2020.

Expanded length frequencies for summer flounder recreational harvest from 2017-2019 are shown in Figure 3, both in number of fish harvested and in percent of total harvest. Size limits were held constant in the states of New Jersey and north between 2017-2019, with the exception of the addition of a shore program size limit in Rhode Island in 2019. The states of Delaware through Virginia revised their size limits from 17 to 16.5 inches between 2017 and 2018 and made no changes between 2018 and 2019. North Carolina remained at 15 inches from 2017-2019.

In 2019 , the size bin with the largest landings was 18 inches ( $21 \%$ of 2019 harvest, or about 415,000 fish).


Harvest in Numbers
\% of Harvest

Figure 3: Expanded recreational length frequency for summer flounder, 2017-2019. Size bins below 14 " and above 27 " accounted for less than $0.5 \%$ each of the estimated total harvest and were omitted. Source: Pers. Comm. with the National Marine Fisheries Service, Fisheries Statistics Division, October 5, 2020.

Table 3 provides estimates of the number of trips where summer flounder was reported as the primary target from Maine through North Carolina, and the estimated percentage of these directed summer flounder trips relative to directed trips from all species Maine through North Carolina.

The number of directed recreational summer flounder trips has generally declined since 2011 but summer flounder trips remain greater than $10 \%$ of total fishing trips within the management unit ( $11 \%$ in 2019; Table 3).

Table 3: Number of summer flounder directed recreational fishing trips, and percentage of total directed trips, Maine through North Carolina, 2008-2019.

|  | Number of Summer <br> Flounder Directed Trips <br> (millions) $^{\mathbf{a}}$ | Percentage of Directed Trips <br> Relative to Total Trips ${ }^{\text {a,b }}$ |
| :---: | :---: | :---: |
| $\mathbf{2 0 0 8}$ | 8.84 | $10 \%$ |
| $\mathbf{2 0 0 9}$ | 10.42 | $11 \%$ |
| $\mathbf{2 0 1 0}$ | 11.92 | $12 \%$ |
| $\mathbf{2 0 1 1}$ | 13.03 | $14 \%$ |
| $\mathbf{2 0 1 2}$ | 11.89 | $13 \%$ |
| $\mathbf{2 0 1 3}$ | 11.23 | $13 \%$ |
| $\mathbf{2 0 1 4}$ | 11.49 | $13 \%$ |
| $\mathbf{2 0 1 5}$ | 10.61 | $13 \%$ |
| $\mathbf{2 0 1 6}$ | 10.19 | $12 \%$ |
| $\mathbf{2 0 1 7}$ | 8.62 | $10 \%$ |
| $\mathbf{2 0 1 8}$ | 8.59 | $12 \%$ |
| $\mathbf{2 0 1 9}$ | 8.67 | $11 \%$ |
| $\mathbf{A V G}$ | 10.61 | $12 \%$ |

${ }^{a}$ Revised MRIP estimated number of recreational fishing trips (expanded) where the primary target species was summer flounder, Maine through North Carolina. Source: Pers. Comm. with the National Marine Fisheries Service, Fisheries Statistics Division, October 5, 2020.
${ }^{\mathrm{b}}$ Source of total trips for all species combined, revised MRIP data: Pers. Comm. with the National Marine Fisheries Service, Fisheries Statistics Division, October 5, 2020.

## 2020 Recreational Data

Typically, staff uses preliminary MRIP data in the current year for waves 1-4 (January through August ${ }^{2}$ ) to project catch and harvest through the rest of the year. These projections are then compared to the RHL for the upcoming year to evaluate how harvest may need to be adjusted to prevent RHL overages in the upcoming year. Because 2020 catch data from MRIP are not available due to limited Access Point Angler Intercept Survey (APAIS) sampling related to Covid-19, projections of 2020 harvest cannot be generated.

MRIP effort sampling, via the mail-based Fishery Effort Survey (FES), continued uninterrupted in 2020. Coastwide data on the estimated number of angler trips are available for the first four waves of 2020 (January-August). These data can be broken down by wave and fishing mode; however, they generated for all recreational species combined and are not available by target species given that directed trip data are generated using information from APAIS.

Figure 4 and Table 4 summarize estimated combined-species recreational trips for waves 1-4 between 2018-2020 for Maine through North Carolina. These data indicate that estimated total trips in waves 1-4 rose by $11 \%$ between 2018 and 2019, and then fell $4 \%$ between 2019 and 2020.

[^11]By wave, between 2019 and 2020, trips in wave 2 decreased by $19 \%$, trips in wave 3 decreased by $4 \%$, and trips in wave 4 increased by $2 \%$. By mode, estimates of party/charter trips in waves $1-4$ decreased by $31 \%$ between 2019 and 2020. Private/rental trips increased by an estimated $2 \%$, and shore mode trips decreased by $7 \%$.

While these data can give managers a general sense of how effort in 2020 compares to 2018 and 2019, they cannot be used to make conclusions about summer flounder catch or harvest in 2020 in terms of pounds or numbers of fish. Given the lack of intercept survey data, no information is available on recreational catch rates, discard rates, or size/weight of landed and discarded summer flounder in 2020. APAIS information is also required to account for and adjust for non-resident fishing effort and account for area fished, which is important for generating harvest and catch estimates. MRIP is in the process of evaluating possible methods for generating estimates of 2020 catch, including modeling approaches, the feasibility of imputation, and using data proxies such as the previous year's data. These approaches will take some time to develop, and any catch estimates that can be generated for 2020 are not likely to be available until at least early 2021.



Figure 4: Estimated wave 1-4 angler trips for all species, ME-NC, 2018-2020 for a) all trips combined; b) trips by wave, and c) trips by fishing mode.

Table 4: Total estimated angler trips by wave and fishing mode, 2018-2020, waves 1-4, ME-NC. Includes all trips regardless of species caught or targeted.

|  | $\mathbf{2 0 1 8}$ | $\mathbf{2 0 1 9}$ | $\mathbf{2 0 2 0}$ |
| :---: | :---: | :---: | :---: |
| Wave 1 (Jan/Feb) | $\mathbf{1 , 1 9 8 , 4 1 6}$ | $\mathbf{1 , 3 6 7 , 2 7 0}$ | $\mathbf{1 , 1 1 3 , 3 4 5}$ |
| Party/Charter | 284 | 757 | 1,935 |
| Private/Rental | 396,807 | 363,376 | 371,757 |
| Shore | 801,325 | $1,003,137$ | 739,653 |
| Wave 2 (Mar/Apr) | $\mathbf{2 1 , 4 3 4 , 1 5 8}$ | $\mathbf{2 5 , 0 0 0 , 1 2 2}$ | $\mathbf{2 5 , 5 5 1 , 4 0 7}$ |
| Party/Charter | 563,025 | 675,081 | 484,402 |
| Private/Rental | $7,946,904$ | $8,583,014$ | $10,323,820$ |
| Shore | $12,924,229$ | $15,742,027$ | $14,743,185$ |
| Wave 3 (May/Jun) | $\mathbf{7 , 3 5 6 , 3 5 8}$ | $\mathbf{9 , 7 5 5 , 0 4 8}$ | $\mathbf{7 , 8 8 3 , 2 2 1}$ |
| Party/Charter | 26,347 | 28,413 | 3,164 |
| Private/Rental | $1,886,247$ | $3,209,239$ | $2,441,457$ |
| Shore | $5,443,764$ | $6,517,396$ | $5,438,600$ |
| Wave 4 (Jul/Aug) | $\mathbf{1 7 , 7 9 3 , 7 9 5}$ | $\mathbf{1 6 , 8 6 6 , 1 8 2}$ | $\mathbf{1 6 , 1 1 2 , 5 1 7}$ |
| Party/Charter | 380,926 | 388,272 | 261,453 |
| Private/Rental | $6,732,529$ | $6,148,493$ | $5,482,056$ |
| Shore | $10,680,340$ | $10,329,417$ | $10,369,008$ |
| Total | $\mathbf{4 7 , 7 8 2 , 7 2 7}$ | $\mathbf{5 2 , 9 8 8 , 6 2 2}$ | $\mathbf{5 0 , 6 6 0 , 4 9 0}$ |

## Past Fishery Performance and Management Measures

RHLs for summer flounder were first implemented in 1993. Since then, they have varied from a high of 11.98 million lb in 2005 to a low of 3.77 million lb in 2017. Performance relative to past RHLs can only be evaluated using pre-revision ("old") MRIP data, since past RHLs were set using assessments that incorporated the previous MRIP time series. Recreational harvest (pre-revision data) relative to the RHL has varied from a high of $122 \%$ over the RHL (2000) to a low of $49 \%$ under the RHL (2011; Table 5).

From 1993-2000, coastwide measures were in place for all states and federal waters, with possession limits ranging from 3-10 fish and size limits ranging from 14.0-15.5 inches, depending on the year. Starting in 2001, conservation equivalency was implemented, and has been used as the preferred management system each year since (Table 5). Under conservation equivalency, individual states or multi-state regions set measures that collectively are designed to constrain harvest to the coastwide RHL. Federal regulations are waived and anglers are subject to the summer flounder regulations of the state in which they land. State-by-state conservation equivalency was adopted each year from 2001 through 2013, with each state implementing different sets of management measures. Each year from 2014 through 2020, the Board has approved the use of regional conservation equivalency, where the combination of regional measures is expected to constrain the coastwide harvest to the RHL.

In December 2019, the Council and Board adopted regional conservation equivalency for the summer flounder recreational fishery in 2020, using the same regions, state measures, non-preferred coastwide measures, and precautionary default measures as adopted for 2019. The RHL was unchanged between 2019 and 2020. Region-specific possession limits in 2020 range from 2-6 fish with size limits ranging from 15.0-19.0 inches, with various seasons (Table 6).

Under conservation equivalency, the Council and Board must adopt two associated sets of measures: the non-preferred coastwide measures, and the precautionary default measures. The non-preferred coastwide measures are a set of measures that would be expected to constrain harvest to the RHL if implemented on a coastwide basis (the same measures in all states and in federal waters). The combination of state or regional measures under conservation equivalency is designed to be equivalent to this set of non-preferred coastwide measures in terms of coastwide harvest. These coastwide measures are included in the federal regulations but waived in favor of state- or region-specific measures. The non-preferred coastwide measures adopted in 2020 include a 4 -fish possession limit, a 19 -inch total length (TL) minimum size, and an open season from May 15-September 15. These non-preferred coastwide measures are only waived for the duration of the applicable fishing year; thus, the non-preferred measures described above will take effect in federal waters and for federal party/charter permit holders starting on January 1, 2021 until replaced (if applicable) by the implementation of conservation equivalency or alternative coastwide measures.

The precautionary default measures would be implemented in any state or region that failed to develop adequate measures to constrain landings as required by the conservation equivalency guidelines. The precautionary default measures in 2020 include a 2 -fish possession limit with a 20 -inch TL minimum fish size and an open season from July 1-August 31.

Table 5: Summary of federal management measures for the summer flounder recreational fishery, 1994-2021.

| Measure | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ABC (m lb) | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Recreational ACL <br> (land+dead disc; m lb) | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| RHL (m lb) | 10.67 | 7.76 | 7.41 | 7.41 | 7.41 | 7.41 | 7.41 | 7.16 | 9.72 | 9.28 | 11.21 | 11.98 | 9.29 | 6.68 |
| Harvest - OLD MRIP (m lb) | 9.33 | 5.42 | 9.82 | 11.87 | 12.48 | 8.37 | 16.47 | 11.64 | 8.01 | 11.64 | 11.02 | 10.92 | 10.50 | 9.34 |
| \% Over/Under RHL(Old MRIP) | -13\% | -30\% | +33\% | +60\% | +68\% | +13\% | +122\% | +63\% | -18\% | +25\% | -2\% | -9\% | +13\% | +40\% |
| Harvest - NEW MRIP | 14.29 | 9.02 | 15.02 | 18.52 | 22.86 | 16.70 | 27.03 | 18.56 | 16.29 | 21.49 | 21.20 | 18.55 | 18.63 | 13.89 |
| Possession Limit | 8 | 6/8 | 10 | 8 | 8 | 8 | 8 | 3 | a | a | a | a | a | a |
| Size Limit (TL in) | 14 | 14 | 14 | 14.5 | 15 | 15 | 15.5 | 15.5 | a | a | a | a | a | a |
| Open Season | $\begin{aligned} & 4 / 15- \\ & 10 / 15 \end{aligned}$ | $\begin{gathered} 1 / 1- \\ 12 / 31 \end{gathered}$ | $\begin{gathered} 1 / 1- \\ 12 / 31 \end{gathered}$ | $\begin{gathered} 1 / 1- \\ 12 / 31 \\ \hline \end{gathered}$ | $\begin{gathered} 1 / 1- \\ 12 / 31 \end{gathered}$ | $\begin{gathered} 5 / 29- \\ 9 / 11 \end{gathered}$ | $\begin{gathered} 5 / 10- \\ 10 / 2 \\ \hline \end{gathered}$ | $\begin{aligned} & 4 / 15- \\ & 10 / 15 \end{aligned}$ | a | a | a | a | a |  |
| Measure | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| ABC (m lb) | - | 21.50 | 25.50 | 33.95 | 25.58 | 22.34 | 21.94 | 22.57 | 16.26 | 11.30 | 13.23 | 25.03 | 25.03 | $27.11^{\text {c }}$ |
| Recreational ACL <br> (land+dead disc; mlb ) | - | - | - | - | 11.58 | 10.23 | 9.07 | 9.44 | 6.83 | 4.72 | 5.53 | 11.51 | 11.51 | $12.48^{\text {c }}$ |
| RHL (m lb) - landings only | 6.22 | 7.16 | 8.59 | 11.58 | 8.49 | 7.63 | 7.01 | 7.38 | 5.42 | 3.77 | 4.42 | 7.69 | 7.69 | $8.32^{\text {c }}$ |
| Harvest - OLD MRIP (m lb) | 8.15 | 6.03 | 5.11 | 5.96 | 6.49 | 7.36 | 7.39 | 4.72 | 6.18 | 3.19 | 3.35 | - | - | - |
| \% Over/Under RHL(Old MRIP through 2018; New MRIP 2019) | +31\% | -16\% | -41\% | -49\% | -24\% | -4\% | +5\% | -36\% | +14\% | -15\% | -24\% | +1\% | - | - |
| Harvest - NEW MRIP | 12.34 | 11.66 | 11.34 | 13.48 | 16.13 | 19.41 | 16.23 | 11.83 | 13.24 | 10.09 | 7.60 | 7.80 | - | - |
| Possession Limit | a | a | a | a | a | a | b | b | b | b | b | b | b | - |
| Size Limit (TL in) | a | a | a | a | a | a | b | b | b | b | b | b | ${ }^{\text {b }}$ | - |
| Open Season | a | a | a | a | a | a | a | b | b | b | b | b | b | - |

[^12]Table 6: Summer flounder recreational fishing measures in 2018-2020, by state, under regional conservation equivalency. 2018-2020 regions include: 1) Massachusetts, 2) Rhode Island, 3) Connecticut and New York, 4) New Jersey, 5) Delaware, Maryland, The Potomac River Fisheries Commission, and Virginia, and 6) North Carolina.

|  | 2018 |  |  | 2019 |  |  | 2020 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| State | Min. Size (inches) | Bag Limit | Season | Min. Size (inches) | Bag Limit | Season | Min. Size (inches) | Bag Limit | Season |
| MA | 17 | 5 fish | 5/23-10/9 | 17 | 5 fish | 5/23-10/9 | 17 | 5 fish | 5/23-10/9 |
| RI | 19 | 6 fish | 5/1-12/31 | 19 | 6 fish | 5/3-12/31 | 19 | 6 fish | 5/3-12/31 |
| RI 7 | N/A | N/A |  | 19 | 4 fish $^{\text {a }}$ |  | 19 | 4 fish $^{\text {a }}$ |  |
| designated shore sites |  |  |  | 17 | 2 fish $^{\text {a }}$ |  | 17 | 2 fish $^{\text {a }}$ |  |
| CT | 19 | 4 fish | 5/4-9/30 | 19 | 4 fish | 5/4-9/30 | 19 | 4 fish | 5/4-9/30 |
| CT Shore Program (45 sites) | 17 |  |  | 17 |  |  | 17 |  |  |
| NY | 19 |  |  | 19 |  |  | 19 |  |  |
| NJ | 18 | 3 fish | 5/25-9/22 | 18 | 3 fish | 5/24-9/21 | 18 | 3 fish | 5/22-9/19 |
| NJ Shore program site (ISBSP) | 16 | 2 fish |  | 16 | 2 fish |  | 16 | 2 fish |  |
| NJ/Delaware Bay <br> COLREGS | 17 | 3 fish |  | 17 | 3 fish |  | 17 | 3 fish |  |
| DE | 16.5 | 4 fish | 1/1-12/31 | 16.5 | 4 fish | 1/1-12/31 | 16.5 | 4 fish | 1/1-12/31 |
| MD <br> PRFC |  |  |  |  |  |  |  |  |  |
| VA |  |  |  |  |  |  |  |  |  |
| NC | 15 | 4 fish | 1/1-12/31 | 15 | 4 fish | 1/1-9/3 ${ }^{\text {b }}$ | 15 | 4 fish | 8/16-9/30 |

${ }^{2}$ Combined possession limit of 6 fish, no more than 2 fish at 17 -inch minimum size limit.
${ }^{\mathrm{b}}$ The recreational flounder fishery in North Carolina (southern, gulf, and summer flounder) closed on September 4, 2019 as the result of measures implemented to end overfishing on southern flounder. NC manages all flounder in the recreational fishery under the same regulations resulting in a de facto closure of the summer flounder recreational fishery. Additional season restrictions were implemented for 2020.

## Accountability Measures

Federal regulations include proactive accountability measures (AMs) to prevent the summer flounder recreational Annual Catch Limit (ACL) from being exceeded and reactive AMs to respond when an ACL is exceeded. Proactive recreational AMs include adjusting management measures (bag limits, size limits, and season) for the upcoming fishing year to prevent the RHL and ACL from being exceeded. The NMFS Regional Administrator no longer has in-season closure authority for the recreational fishery if the RHL or ACL is expected to be exceeded. For reactive AMs, paybacks of ACL overages may be required in a subsequent fishing year, depending on stock status and the magnitude of the overage, as described below. ACL overages in the recreational fishery are evaluated by comparing the most recent 3 -year average recreational ACL against the most recent 3-year average of recreational dead catch (i.e., landings and dead discards). If average dead catch exceeds the average ACL, then the appropriate AM is determined based on the following criteria:

1. If the stock is overfished ( $\mathrm{B}<1 / 2 \mathrm{~B}$ msy), under a rebuilding plan, or the stock status is unknown: The exact amount, in pounds, by which the most recent year's recreational ACL has been exceeded, will be deducted in the following fishing year, or as soon as possible once catch data are available.
2. If biomass is above the threshold, but below the target $\left(1 / 2 \mathrm{~B}_{\text {MSY }}<\mathrm{B}<\mathrm{B}_{\text {MSY }}\right)$, and the stock is not under a rebuilding plan:

- If only the recreational ACL has been exceeded, then adjustments to the recreational management measures (bag, size, and seasonal limits) would be made in the following year, or as soon as possible once catch data are available. These adjustments would take into account the performance of the measures and the conditions that precipitated the overage.
- If the Acceptable Biological Catch ( $\mathrm{ABC}=$ recreational $\mathrm{ACL}+$ commercial ACL ) is exceeded in addition to the recreational ACL, then a single year deduction will be made as a payback, scaled based on stock biomass. The calculation for the payback amount in this case is: (overage amount) $*\left(B_{m s y}-B\right) / 1 / 2 B_{m s y}$.

3. If biomass is above the target $\left(B>B_{M S Y}\right)$ : Adjustments to the recreational management measures (bag, size, and seasonal limits) would be considered for the following year, or as soon as possible once catch data are available. These adjustments would take into account the performance of the measures and the conditions that precipitated the overage.

The most recent three years of recreational catch data available are 2017-2019; however, 2017 and 2018 recreational ACLs were set using assessments that used the pre-revision MRIP data; therefore, it is necessary to use catch estimates based on the old MRIP estimation methodology to compare pre-2019 recreational catch to the ACLs. The evaluation shown in Table 7 thus uses old MRIP data for 2017-2018 and revised MRIP data for 2019. This evaluation indicates that recreational catch was below the recreational ACLs for summer flounder in each year from 2017-2019, meaning that a recreational AM has not been triggered for application in 2021.

Table 7: Evaluation of summer flounder recreational AMs using 3-year moving average of the recreational ACL compared to 3-year moving average of recreational dead catch. Because revised MRIP estimates were incorporated into the RHL setting process starting in 2019, old MRIP data is used for 2017-2018 comparisons and revised MRIP for 2019.

|  | Recreational <br> Harvest | Recreational <br> Dead Discards | Total Dead <br> Recreational <br> Catch | Recreational <br> ACL | \% Over/ <br> Under |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2017 (old MRIP) | 3.19 | 0.94 | 4.13 | 4.72 | $-13 \%$ |
| 2018 (old MRIP) | 3.35 | 0.97 | 4.32 | 5.53 | $-22 \%$ |
| $\mathbf{2 0 1 9}$ (new MRIP) $^{\text {(new }}$ | 7.80 | 3.04 | 10.84 | 11.51 | $-6 \%$ |

${ }^{a}$ MRIP stopped publicly releasing pre-calibration MRIP data after 2017, but back-calibrated 2018 recreational harvest data were provided to Council staff by request. 2018 dead discards were estimated by assuming the same ratio of recreational discards to landings for the 2018 pre- and post-revision MRIP data (using post-revision data from the 2019 Northeast Fisheries Science Center data update).

## 2021 Staff Recommendation

The lack of 2020 harvest information makes it difficult to assess what management changes may be needed for 2021. While the RHL for 2021 is proposed to increase by $8 \%$ from 2020 to 8.32 million pounds, it is not known how the fishery has performed thus far in 2020 relative to the current limit of 7.69 million pounds. Summer flounder is not overfished and overfishing is not occurring, and harvest in 2019 was very close to the 2019 RHL as described above. Staff recommends maintaining the current management strategy of regional conservation equivalency and maintaining state management measures status quo for 2021.

Staff recommends no changes to the current non-preferred coastwide measures of a 19-inch size limit, 4 fish possession limit, and open season May 15-September 15. Again, these are measures that would be expected to constrain harvest to the RHL if implemented on a coastwide basis, but are waived in favor of state- and region-specific measures under conservation equivalency. Staff also recommends no changes to the precautionary default measures (a 20-inch size limit, 2 fish possession limit, and open season July 1-August 31), which would be implemented in any state that does not abide by the conservation equivalency guidelines by implementing the agreed upon measures necessary to constrain harvest to the RHL.

## MEMORANDUM

Date: $\quad$ November 25, 2020
To: $\quad$ Council and Board
From: Matthew Seeley, Council staff
Subject: 2021 Bluefish Recreational Management Measures

The Council and Board will review recent fishery performance and 2021 recreational management measures recommendations from the Monitoring Committee and Advisory Panel for bluefish on Tuesday, December 15, 2020. Materials listed below are provided for the Council and Board's consideration of this agenda item.

Items are listed in reverse chronological order.

1) Monitoring Committee Meeting Summary dated November 25, 2020
2) Advisory Panel Meeting Summary dated November 12, 2020
3) Staff Memo on 2021 Bluefish Recreational Management Measures dated October 26, 2020


# Bluefish Monitoring Committee Webinar 

November 17, 2020
Webinar Meeting Draft Summary (Dated: November 25, 2020)

Monitoring Committee Attendees: Matthew Seeley (MAFMC staff), Dustin Colson Leaning (ASMFC staff), David Behringer (NC DMF), Eric Durell (MD DNR), Cynthia Ferrio (GARFO), Sandra Dumais (NY DEC), Tony Wood (NEFSC), Sam Truesdell (MA DMF), Kurt Gottschall (CT DEEP), Rich Wong (DE F\&W), Michael Celestino (NJ F\&W), Nicole Lengyel Costa (RI DEM), and Joseph Munyandorero (FL FWC)

Additional Attendees: Richard Cody, Michelle Duval, Tom Fote, Nichola Meserve, Chris Batsavage, Maureen Davidson, and Mike Waine

## 2020 Recreational Data Gaps

The Monitoring Committee (MC) discussed the impacts of COVID-19 on recreational data collection and the ability to generate catch estimates for 2020. As discussed in the staff memo, due to a lapse in angler intercept sampling caused by COVID-19 restrictions, 2020 catch estimates will not be available prior to the end of 2020.

Dr. Richard Cody (NMFS Office of Science and Technology, Fisheries Statistics Division) participated in the discussion of 2020 recreational estimates. He noted that there are significant gaps in intercept data this year, particularly for mid-March through April. NMFS is currently exploring ways that estimates could be generated for 2020, including options for imputation methods using proxy data from other time periods. This process may result in annual estimates for 2020, but it may not be feasible or defensible to generate wave or state specific estimates given the number of considerations and assumptions that would need to go into this process. Intercept sampling was disrupted at different points in the year with varying impacts across different states. While sampling is currently back to some level of consistency, current conditions have led to some changes in coverage and information gathered. One notable trend is that interviewers are getting fewer length and weight measurements during interviews due to the reluctance of interviewers and anglers to closely interact.

The MC reviewed preliminary effort data for waves 1-4 with comparisons to 2018-2019 data. This data can provide information on general trends in recreational trips but is not species-specific. In the absence of intercept data, it is not possible to draw conclusions about 2020 harvest for any species. However, the MC was in general agreement that while these trends may be of interest later on to contribute to a general evaluation of 2020 fishing trends, they are not likely to be informative for the specific recommendations of 2021 recreational measures for bluefish. None of these data streams would allow the MC to generate harvest estimates for comparison to the recreational harvest limit (RHL) or to make specific adjustments to management measures.

A Council member asked whether there would be a back-calibrated 2019 recreational harvest estimate in the old MRIP currency that could be compared with the 2019 RHL. Marine Recreational Information Program (MRIP) staff responded that they are working to get this estimate, however it is currently unavailable. MRIP staff also noted that although they have the ability to provide a back-calibrated estimate for 2019 recreational catch, this back calculation should not be done in perpetuity.

## Bluefish

The MC unanimously supported the 2021 staff recommendation for status quo recreational management measures for bluefish. The MC discussed: (1) the lack of recreational harvest estimates in 2020, (2) the high level of uncertainty in developing harvest projections to compare to the 2021 RHL, (3) the lack of support for the 2019 recreational landings being used as a proxy for expected 2021 recreational landings, and (4) the timing of when the current 3 and 5 -fish bag limits for private and for-hire anglers, respectively, went into effect.

The MC revisited the methodology used last year to project 2020 landings to provide the Council and Board with additional analyses on potential 2021 recreational landings. In October 2019, the Council and Board determined that 2018 recreational landings ( 13.27 M lbs.) served as an appropriate projection of 2020 landings despite the MC recommendation to use a 3-year average of harvest. The 2020 recreational measures (3 and 5 -fish bag limit) were implemented to restrict harvest by $28.56 \%$ to achieve the 2020 RHL of 9.48 M lbs. For 2021, the RHL has been further reduced to 8.34 M lbs , indicating that a $12.03 \%$ reduction in landings may be necessary to constrain harvest to the lower RHL.

To project recreational landings, the MC typically uses the most recent 3-year average of landings. The 2017-2019 average landings ( 20.30 M lbs.) with the same $28.56 \%$ reduction that was projected to be achieved under the 2020 management measures yields a 2021 landings projection of 14.50 M lbs. This landings projection methodology indicates a potential $73.86 \%$ overage of the 2021 RHL of 8.34 M lbs . While the MC still recommends status quo recreational measures for 2021, these analyses indicate a potential range of 2021 landings projection estimates that should be reviewed by the Council and Board. As detailed above, the MC concluded the recommendation for status quo recreational measures is appropriate given the unusual circumstances and lack of reliable 2020 data.

The MC also discussed the potential risk of triggering accountability measures (AMs) if an annual catch limit (ACL) overage occurs. Greater Atlantic Regional Fisheries Office (GARFO) staff noted that if the 2021 fishery level ACL is exceeded, no sector transfer has occurred, and it is determined that recreational catch was the sole cause of the overage, AMs will be applied to the recreational fishery only. The type of AM is dependent on stock status. Since the stock is overfished and will soon be entering a rebuilding plan, a pound-for-pound payback of the overage would be deducted from the next applicable fishing year's recreational ACT.

GARFO staff noted that it is unlikely AMs will be applied to any 2020 overages until at least 2022, if not later, due to the timing of the release of annual recreational catch estimates, at which point bluefish will already be under a rebuilding plan. Applying AMs to 2019 also fall under special circumstances. The 2019 RHL was developed using old MRIP estimates, which cannot be directly
compared to 2019 landings measured in the new MRIP estimates. If, upon completion of backcalibrating 2019 landings into the old MRIP estimates, GARFO discovers that an overage occurred, recreational AMs could be applied to the next applicable fishing year. However, GARFO staff indicated that the fishery has changed substantially in the past two years (overfished status, stringent recreational management measures, implementation of rebuilding plan, etc.), and therefore the application of latent AMs may no longer be appropriate. Attention should be focused on the current fishery, the rebuilding plan, and management moving forward.

Lastly, the MC cautions the Council and Board to be aware of current commercial fishery performance and the implications this may have on bluefish total catch. Many states have been landing their entire quotas and requesting transfers from other states. As of November 11, 2020, $69.41 \%$ of the 2.77 M lbs . coastwide commercial quota has been landed ${ }^{1}$ and 10 transfer requests have been approved. Ultimately, the data indicates there will not be a large commercial underage that could otherwise assist in maintaining total catch below the fishery level ACL.

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Bluefish Advisory Panel Webinar
November 12, 2020

## Meeting Summary

The Mid-Atlantic Fishery Management Council's (Council’s) Bluefish Advisory Panel (AP) met jointly with the Atlantic States Marine Fisheries Commission's (Commission's) Bluefish AP via webinar on November 12, 2020. The objectives of this meeting were to review and provide feedback on staff recommendations for 2021 recreational measures for bluefish.

Please note: Advisor comments described below are not necessarily consensus or majority statements. Some advisors also provided written comments which are included in the briefing materials for the December 2020 joint Council and Board meeting (available at: http://www.mafmc.org/meetings).
Council Advisory Panel members present: Frank Blount (RI), Phil Langley (MD), and Judith Weis (NY)

Commission Advisory Panel members present: Paul Caruso (MA), Robert Lorenz (NC), and Rusty Hudson (FL)

Others present: Chris Batsavage, Cynthia Ferrio, Hannah Hart, Michelle Duval, Steve Witthuhn, Steve Cannizzo, Michelle Duval, Mike Waine, Dustin Colson Leaning, and Matthew Seeley

## Bluefish

Advisors first received a presentation from staff discussing the current recreational measures, stock status, 2019 data update and fishery performance, 2020 data gaps, and staff recommendation for status quo 2021 recreational measures. Following the presentation, advisors offered their on-thewater observations, research recommendations, and comments. In general, most advisors supported the staff recommendation of status quo recreational measures for 2021 due to the lack of available data in 2020 and lack of understanding of how the reduced bag limits are currently performing. Specific comments are provided below and are partitioned by state.

NC - Effort reported by MRIP for 2020 should not be interpreted coastwide. The effort results coastwide are not well representative of the effort I have been observing in NC. If MRIP was down due to access, shore-based fishing (surf) should be significantly higher in NC. Our shut down for in-shore type fishing was only for about 10 days and some counties did not shut down at all. The number of people that went to the beaches for recreational activities was either consistent or higher than normal - I could not fish because there were too many people.

NC - We typically catch 1-3 lb fish in our waters. Surf and pier fishing will most likely continue because water temps are in the 70s near shore. In general, people are starting to come fishing again. My personal shore effort is going to increase due to our phenomenal beach season.

NC - In light of everything going on, I think it is a very prudent and fair recommendation to remain status quo. However, regarding the for-hire sector, we should maybe try to give them a few more fish since they are serving the recreational community. It could be impactful for them and not too impactful against the entire quota.

MA - Early COVID-19 waves greatly impacted fishing communities through shutdowns. We had a lot of restrictions when the bluefish were here earlier in the year. Considering the cyclical nature of bluefish, I saw more bluefish than in recent years. However, the spring run was late because it stayed cold longer into the season than usual. We had a great summer and fall which was full of bluefish inshore and offshore.

RI - From August through mid-October, we had more bluefish offshore than we have seen in years. Sizes were ranging anywhere from 2 to 15 pounds.

MD Chesapeake Bay - Question: Has there been research on discard mortality with increased ocean temperatures? Answer: There has been research on discard mortality rates. That is how we are able to use a $15 \%$ mortality rate for discarded fish. This research was conducted years ago and has recently been discussed as a result of the upcoming bluefish assessment. However, no one on the call was aware of recent discard mortality studies related to ocean temperatures.

MD Chesapeake Bay - More anglers targeting bluefish should use circle hooks because they are still very effective and reduce discard mortality. The for-hire sector has taken a huge hit coastwide over the years. Over the past two years, it started with the reductions in bag limit and now it's the inability to fish due to COVID-19. Right now, we are living with the reductions. I depend on bluefish in the area because of the lack of other species, but I do support the status quo recommendation as a result of the situations we are dealing with.

NC (Public) - Question: Why are fishing license sales way up but the MRIP effort survey shows a reduction in 2020 compared to 2019? Answer: Not everyone getting a fishing license is fishing. Also, it is consistently difficult to discern whether the COVID-19 pandemic is causing individuals in specific regions to spend more time outside fishing or more time inside away from other people.

NY (Public) - This year, we had great weather, but losing the 15 -fish limit has been hurting the for-hire community. On the east end of Long Island, there are now only 2 bluefish party/charter vessels left.

NY (Public) - As bluefish migrate, they herd up the beach and anglers catch them in waves. Some of these fish are getting very large (up to 20 lbs ). The migration cycle observed with bluefish is the nature of the species. This year, we did not have as much of a bait issue considering sand eel and chub mackerel/menhaden abundance. Thus, when bluefish are not available, we may be able to attribute the absence to water temperature. Increased water temps (up to the 80s) lead to fish moving further offshore and into northern waters, which was the case during the prime summer months.

NY (Public) - Fewer and fewer people want to target bluefish. Further constraining the limits will turn bluefish into a bycatch fishery. Ultimately, the for-hire sector needs a 7-8 fish allowance (this does not need to be in the form of sector separation). When fish are available, they come in very large numbers and we would like to be able to land more than 5 fish. In regard to the staff recommendation, I would support status quo, but implore the Council and Board to look into developing a for-hire sector allowance since we account for such a small percentage of total catch.

## Comments submitted late or via email

Capt. TJ Karbowski, Rock \& Roll Charters, Clinton, CT
New 2020 regulation:
In my opinion, the new bluefish regulations had zero to little effect on the bluefish population. On my boat, we did not harvest or release any more or less bluefish than any other season. I still do not know anyone who specifically leaves the dock and targets bluefish for harvesting; it's usually just the "backup plan." With the exception of, the very poorly regulated, "Greatest Bluefish Tournament on Earth" in August (of which there is no minimum size) most anglers just catch and release the blues as by-catch while they are actually targeting striped bass or other species. There are of course a handful of fishermen out on Saturday's or Sunday's casting to the blues when they see them jumping on top, but this is usually just for 20 minutes or so and then they move on.

As a 6 passenger Charter operator, the new regulations did not affect my business at all as once again I am stating that no one really target's bluefish. Not a single one of my 1,800 customers this season have complained about the regulations. For a typical party of 6 , we harvest $0-3$ fish and sometimes a bit more if the fishing was slow for other more desirable species. Even if we are into a heavy school, the harvest rarely exceeds 10 fish. Bluefish are a "bailout fish" just to bend the rod. Additionally, customers have the view of them being "junk fish." I assure you; overharvesting is not an issue among recreational anglers.

The new 2020 regulations likely only had an effect on those fishing from shore targeting snappers. Raising the bag limit for fish under 12 inches or so will likely go a long way in building some trust back into the fishery management process without affecting the population. A 5 fish bag limit for the "for hire" fleet is fine, but it CANNOT be lowered as the blues do indeed save the day on trips every so often and those customers of whom want a bunch of bluefish to smoke will have the perception they can retain enough to make it worth their while.

## 2020 Fishing Season:

Blue fishing during the 2020 fishing season in general was a very solid fishery. Not as many fish for example as 2010, but vastly improved since the virtual collapse of the Long Island Sound ecosystem that occurred in 2014. Since then, (and I'm sure its forage related) they have started coming into the Sound in reliable numbers the first week of August.

Unlike striped bass that will often solitarily take up residence on a piece of structure for days or weeks knowing forage is not too far away, bluefish are completely different. Bluefish do not roam around by themselves. They are almost exclusively accompanied by lion's mane jellyfish, rain bait of all kinds and menhaden. "Find the bait and find the fish". Yes, it's pretty much as easy as that. - They are constantly eating. We have had for several years (since 2014) an extreme absence of forage fish, this translated to a lack of bluefish and because of this, we now have those advocating for this "Rebuilding Plan". Those that are pushing for stricter bluefish harvest regulations are concentrating their focus in a fruitless effort.

Baitfish:
To spend time, effort, hold public hearings etc... to push for further harvest reductions is pointless for the Rebuilding Plan. Efforts need to be focused on forage fish such as silversides of all kinds, menhaden, bay anchovies, spearing, butterfish, squid etc. We suffered an extreme lack of these
species for the last 5 years. To try to have an understanding as to what makes these forage species have successful or poor year classes and successful or poor YOY survival rates is what the focus should be. Whether it's temperature, migration patterns, salinity, predation, commercial fishing, pollution or current speeds are what need to be studied and factored into your equations. The "cyclical" nature of these species is $100 \%$ directly connected to the ability to locate bluefish. If you find small rain bait you will find smaller bluefish. If you find larger forage, such as menhaden, you will find the larger bluefish. It is really not that complicated. Again... find the forage find the fish.

During the lean years (which started in 2014), menhaden in Long Island Sound disappeared like a switch. Long Island Sound was virtually BARREN of life. The Sound was virtually DEAD. (This is the year Omega Protein started taking most of their quota from the Chesapeake after getting banned from fishing in North Carolina). Also, around this time was when Rhode Island squid boats started pair trawling for squid. - We have not had squid in numbers ever since until this year. We ALWAYS did before that. Now in 2020, you can walk on the bunker. It is quite amazing. The schools measure MILES in size. We have had porpoises and even a whale near us. Long Island Sound is currently like a nature preserve. Did Omega Protein harvest less fish??? Did Covid keep the commercial squid harvest down due to lack of demand ultimately leaving more squid and other baitfish in the ocean??? Did all of this contribute to the success of this season? If not Omega, than why all the bunker this year? I don't know. Was there a favorite flavor of plankton the bunker like in the Sound this year? Was it the lack of calcium chloride and calcium magnesium in the Sound this year due to the mild winter and the roads not being treated with this poisonous ice melt??? This is what you need to be studying and entering as part of the rebuilding plan. ...Not recreational bluefish harvest. ***THIS AFFECTS OTHER SPECIES TOO!

## Migration:

Bluefish have been coming in later the last few years. They used to come in July. Now they come in early August. It traditionally was the 2nd week of July. I believe this is due to the success of the 2015-year class of striped bass which are competing for the same forage and "turf" along the migration. This clearly has an effect on numbers if sampling is done WHEN THE FISH AREN'T THERE. Please adjust your surveying methods accordingly.

Additional comments:
I believe it is neither fair to the fish nor fishermen, that alot of these meetings are during the fishing season. Imagine if accountants held their meetings on updating the tax code in early April..... I know the Connecticut Black Sea Bass advisor, and guess what?? He couldn't attend the Sea Bass webinar because he had a charter. Those that are (or should) be advisors will be working on the water every day. Is this intentional? That's the way it feels.,.., the timing of these meetings just lack common sense. Whether it is a lobsterman, charter operator or other commercial fisherman you need solid advisors. Most likely that individual will be on the water and not be able to attend a meeting until December. Having advisors that are recreational fishermen that go out on Saturday mornings a few times a month with their kids and dog do not have a handle on things. Anyone who works on the water pretty much north of Maryland is likely to be on land for the majority of the winter. There is plenty of time to talk about and work on regulations then. For example: The reason I'm submitting this email is because today is Thursday November 12th. The forecast was for high winds yesterday, so I cancelled my 2 charters and started working on these
comments. Today is the advisory meeting. The forecast is great. I will be on the water. I have 2 charters and clearly cannot attend a webinar.

* Also, once again because of the use of the "New MRIP" I feel like I'm wasting my time. Yes, I'm going through the motions so I have no regrets regarding the health of the fishery or my business, but the feeling is like that of paying your monthly bills while using a completely fictitious number as the bank account balance. You know in your gut what the balance is closer to, but you can't use that number because someone is forcing you to use fake numbers that aren't even close, but they give you no choice. It's mind boggling.

In 2019 they had Connecticut anglers harvesting 121,712 blues from SHORE during May/June alone! That's 2,028 PER DAY! The laughable part is this is at a time of year when bluefish aren't even in Long Island Sound. The MRIP numbers are a SHAM and until MRIP goes back to the old numbers or corrects their methodology we are all just WASTING OUR TIME.


# MEMORANDUM 

Date: October 26, 2020
To: $\quad$ Dr. Chris Moore, Executive Director
From: Matthew Seeley, Staff
Subject: 2021 Bluefish Recreational Management Measures

## Introduction and Background

The 2019 Atlantic bluefish operational stock assessment concluded that the stock is overfished but not experiencing overfishing. During their joint meeting in October 2019, the Council and Commission adopted a recreational harvest limit (RHL) of 9.48 million pounds for 2020 and 2021, which is an $18 \%$ decrease compared to the 2019 RHL. For 2020, the recreational sector was projected to land 13.27 million pounds, which would have exceeded the RHL by $28.56 \%$. Therefore, the Council and Commission approved recreational management measures to constrain harvest to the reduced RHL.

The Council and Commission considered several combinations of bag limits and minimum size limits, including options to set a single set of regulations for all fishing modes or different regulations for shore/private and the for-hire mode. Although the Council's Bluefish Monitoring Committee (MC) recommended a coastwide 3-fish bag limit, the majority of comments from the public and Bluefish Advisory Panel (AP) members expressed opposition to this option, noting that it would have severe economic consequences for the for-hire sector, which was only responsible for $3.6 \%$ of coastwide landings from 2016 to 2018. Additionally, AP members and the public emphasized that these proposed reductions come at a challenging time for for-hire stakeholders as they are also facing increased restrictions on striped bass, black sea bass, summer flounder, and scup.

After extensive discussion of various management measures and thorough consideration of public comments in 2019, the Council and Commission approved a 3-fish bag limit for private and shore modes and a 5 -fish bag limit for the for-hire mode with no restrictions to minimum fish size or seasons. These measures were proposed to achieve the necessary $28.56 \%$ reduction in harvest from the expected recreational landings of 13.27 M lbs to the RHL of 9.48 M lbs. However, these measures were not officially implemented until mid-2020.

For 2021, the Council approved using the 2019 recreational discards estimate which resulted in a status quo commercial quota of 2.77 M lbs and revised RHL of 8.34 M lbs (Table 1). A time series of RHLs is presented in Table 2.

The MC is tasked with recommending revised management measures for 2021 that will constrain harvest to the 2021 RHL of 8.34 M lbs. This RHL is a $12.03 \%$ reduction compared to the 2020 RHL of 9.48 M lbs.

Table 1. Current approved (2020-2021) catch limits and management measures compared to the proposed revised 2021 catch limits and management measures.

| Management Measure | Approved 2020-2021 |  | Basis | Revised 2021 |  | Basis |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | M lb ${ }^{1}$ | mt |  | M lb | mt |  |
| OFL | 37.98 | 17,228 | Stock Assessment Projections | 37.98 | 17,228 | Stock Assessment Projections |
| ABC | 16.28 | 7,385 | Derived by SSC; Council P* policy | 16.28 | 7,385 | Derived by SSC; Council P* policy ${ }^{2}$ |
| ACL | 16.28 | 7,385 | Defined in FMP as equal to ABC | 16.28 | 7,385 | Defined in FMP as equal to ABC |
| Management Uncertainty | 0 | 0 | Derived by MC | 0 | 0 | Derived by MC |
| Commercial ACT | 2.77 | 1,255 | (ACL - Management Uncertainty) x 17\% | 2.77 | 1,255 | (ACL - Management Uncertainty) x 17\% |
| Recreational ACT | 13.51 | 6,130 | (ACL - Management Uncertainty) x 83\% | 13.51 | 6,130 | (ACL - Management Uncertainty) x 83\% |
| Commercial Discards | 0 | 0 | Value used in assessment | 0 | 0 | Value used in the assessment |
| Recreational Discards | 4.03 | 1,829 | 2018 discards | 5.17 | 2,343 | 2019 discards |
| Commercial TAL | 2.77 | 1,255 | Commercial ACT commercial discards | 2.77 | 1,255 | Commercial ACT commercial discards |
| Recreational TAL | 9.48 | 4,301 | Recreational ACT recreational discards | 8.34 | 3,785 | Recreational ACT recreational discards |
| TAL Combined | 12.25 | 5,556 | Commercial TAL + recreational TAL | 11.11 | 5,042 | Commercial TAL + recreational TAL |
| Transfer | 0 | 0 | Calculated so Expected Recreational Landings = RHL | 0 | 0 | Calculated so Expected Recreational Landings = RHL |
| Expected <br> Recreational Landings | 13.27 | 6,020 | 2018 Recreational Landings | 15.56 | 7,056 | 2019 Recreational landings, but remains TBD in November |
| Commercial quota | 2.77 | 1,255 | Commercial TAL + transfer | 2.77 | 1,255 | Commercial TAL + transfer |
| RHL | 9.48 | 4,301 | Recreational TAL - transfer | 8.34 | 3,785 | Recreational TAL - transfer |

[^14]Table 2. Summary of bluefish management measures, 2009-2021 (Values are in million pounds).

| Management <br> Measures | $\mathbf{2 0 0 9}$ | $\mathbf{2 0 1 0}$ | $\mathbf{2 0 1 1}$ | $\mathbf{2 0 1 2}$ | $\mathbf{2 0 1 3}$ | $\mathbf{2 0 1 4}$ | $\mathbf{2 0 1 5}$ | $\mathbf{2 0 1 6}$ | $\mathbf{2 0 1 7}$ | $\mathbf{2 0 1 8}$ | $\mathbf{2 0 1 9}^{8}$ | $\mathbf{2 0 2 0}^{9}$ | $\mathbf{2 0 2 1}^{\mathbf{2 0}}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TAC $^{1}$ ABC $^{2}$ | 34.08 | 34.38 | 31.74 | $\mathbf{3 2 . 0 4}$ | $\mathbf{2 7 . 4 7}$ | $\mathbf{2 4 . 4 3}$ | $\mathbf{2 1 . 5 4}$ | $\mathbf{1 9 . 4 5}$ | $\mathbf{2 0 . 6 4}$ | $\mathbf{2 1 . 8 1}$ | $\mathbf{2 1 . 8 1}$ | $\mathbf{1 6 . 2 8}$ | $\mathbf{1 6 . 2 8}$ |
| TAL $^{3}$ | 29.36 | 29.26 | 27.29 | 28.27 | 23.86 | 21.08 | 18.19 | 16.46 | 18.19 | 18.82 | 19.33 | 12.25 | 11.11 |
| Comm. Quota $^{4}$ | 9.83 | 10.21 | 9.38 | 10.32 | 9.08 | 7.46 | 5.24 | 4.88 | 8.54 | 7.24 | 7.71 | 2.77 | 2.77 |
| Comm. Landings $^{5}$ | 7.1 | 7.55 | 5.61 | 4.66 | 4.12 | 4.77 | 4.02 | 4.1 | 3.64 | 2.20 | 2.78 |  |  |
| Rec. Harvest <br> Limit $^{4}$ | 19.53 | 18.63 | 17.81 | 17.46 | 14.07 | 13.62 | 12.95 | 11.58 | 9.65 | 11.58 | 11.62 | 9.48 | 8.34 |
| Rec. Landings, <br> Old MRIP $^{6}$ | 14.47 | 16.34 | 11.5 | 11.84 | 16.46 | 10.46 | 11.67 | 9.54 | 9.52 | 3.64 | N/A |  |  |
| Rec. Landings, <br> New MRIP | 40.73 | 46.30 | 34.22 | 32.53 | 34.40 | 27.04 | 30.10 | 24.16 | 32.07 | 13.27 | 15.56 |  |  |
| Rec. Possession <br> Limit (\# fish) | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | $3:$ Private <br> $5:$ For-Hire | TBD |
| Total Landings | 21.57 | 23.89 | 17.11 | 16.5 | 20.58 | 15.23 | 15.69 | 13.64 | 13.16 | 5.84 | 18.34 |  |  |
| Overage/Underage | -7.79 | -5.37 | -10.18 | -11.77 | -3.28 | -5.85 | -2.5 | -2.82 | -5.03 | -12.98 | N/A* |  |  |
| Total Catch |  |  |  |  |  |  |  |  |  |  |  |  |  |

${ }^{1}$ Through 2011. ${ }^{2} 2012$ fwd. ${ }^{3}$ Not adjusted for RSA. ${ }^{4}$ Adjusted downward for RSA. ${ }^{5}$ Dealer and South Atlantic Canvas data used to generate values from 2000-2011; Dealer data (cfders) was used to generate commercial landings. ${ }^{6}$ Old MRIP. ${ }^{7}$ Recreational discards were calculated assuming MRIP mean weight of fish landed or harvested in a given year multiplied by the MRIP B2s and assumed discard mortality rate of $15 \% .{ }^{8}$ Values for 2019 and beyond are presented using the new MRIP estimates. ${ }^{9} 2020$ will be the first year that the new MRIP landings can be compared to the RHL - this will allow for calculation of total landings, catch, and overage/underages. *Note: 2019 is the transition year for when recreational landings are reported using only new MRIP estimates. The 2019 ABC, RHL, and Commercial Quota were developed using old MRIP estimates and cannot be directly compared to the new recreational landings estimates.

## Past RHLs and Management Measures

From 2000-2018, the bluefish fishery exceeded the RHL twice, in 2007 and 2013 (Table 2). However, accountability measures were not triggered because the RHLs were exceeded due to transfers from the recreational to the commercial fishery. From 2000 to 2019, the only implemented management measures were a federal 15-fish bag limit. Due to the recent change in stock status to overfished, appropriate management measures were implemented for 2020-2021 (as indicated above) to constrain recreational harvest to a lower RHL. These measures implemented for the 2020 fishing year consisted of a 3-fish bag limit for private and shore modes and a 5-fish bag limit for the for-hire mode with no restrictions to minimum fish size or seasons.

## Recreational Catch, Harvest, and 2020 Projections

According to re-calibrated MRIP estimates, recreational bluefish catch has fluctuated from a peak of 62.35 M fish in 2010 to a low of 25.08 M fish in 1995. Harvest shifted from a high of 59.80 M lbs in 1991 to a low of 13.27 M lbs in 2018. Thus, 2018 was the worst year for recreational harvest across the time series (Figure 1, Table 3 [1991-2019]). In 2019, catch and harvest estimates increased to 20.72 M lbs and 15.56 M lbs, respectively.


Figure 1. Recreational bluefish catch and harvest from 1991-2019.

Table 3. Number of bluefish recreational fishing trips, recreational harvest, and recreational landings per trip from 2000 to 2019.

| Year | \# of bluefish <br> trips | Recreational <br> Harvest (N) | Recreational <br> Harvest (lbs) | Recreational <br> landings per <br> "bluefish" <br> trip |
| :---: | :---: | :---: | :---: | :---: |
|  | New MRIP Estimates |  |  |  |
| 2000 | $7,326,957$ | $12,879,485$ | $23,357,120$ | 1.76 |
| 2001 | $9,491,374$ | $18,048,645$ | $31,654,978$ | 1.90 |
| 2002 | $9,617,742$ | $17,607,380$ | $30,654,388$ | 1.83 |
| 2003 | $9,586,532$ | $16,411,932$ | $32,758,670$ | 1.71 |
| 2004 | $10,673,976$ | $18,631,904$ | $37,133,463$ | 1.75 |
| 2005 | $10,927,244$ | $18,341,452$ | $37,742,807$ | 1.68 |
| 2006 | $11,417,723$ | $19,397,272$ | $36,081,958$ | 1.70 |
| 2007 | $12,574,704$ | $19,189,747$ | $40,239,101$ | 1.53 |
| 2008 | $11,259,497$ | $14,845,435$ | $36,166,834$ | 1.32 |
| 2009 | $10,926,384$ | $18,085,386$ | $40,731,438$ | 1.66 |
| 2010 | $12,224,816$ | $21,929,517$ | $46,302,792$ | 1.79 |
| 2011 | $11,057,635$ | $20,814,884$ | $34,218,748$ | 1.88 |
| 2012 | $11,802,073$ | $18,578,838$ | $32,530,917$ | 1.57 |
| 2013 | $9,171,936$ | $19,975,051$ | $34,398,327$ | 2.18 |
| 2014 | $11,814,231$ | $21,510,651$ | $27,044,276$ | 1.82 |
| 2015 | $9,121,415$ | $13,725,106$ | $30,098,649$ | 1.50 |
| 2016 | $11,164,613$ | $14,899,723$ | $24,155,304$ | 1.33 |
| 2017 | $10,354,921$ | $13,845,806$ | $32,071,432$ | 1.34 |
| 2018 | $7,007,966$ | $10,245,710$ | $13,270,862$ | 1.46 |
| 2019 | $8,301,107$ | $12,137,290$ | $15,555,889$ | 1.46 |

${ }^{\text {a }}$ Estimated number of recreational fishing trips where the primary target was bluefish or bluefish were harvested regardless of target, Maine - Florida's East Coast. Source: MRIP.

Figure 2 presents MRIP estimates of landings by mode (1991 through 2019) and indicates that the recent primary modes landing bluefish are private boats and shore mode. Based on recreational harvest in 2019, landings from shore represented $60 \%$ of overall landings, followed by private rental mode at $36 \%$ and the for-hire sector at $4 \%$. From 2015-2019, 60\% of the total bluefish landings came from shore, $35 \%$ from private/rental boats, and $5 \%$ from for-hire boats.


Figure 2. Bluefish recreational harvest (pounds) by mode on the Atlantic Coast, 1991-2019. Source: MRIP.

Typically, projections for the current year are used in conjunction with previous years landings to estimate next years expected recreational landings. Given the restrictions and disturbances caused by the COVID-19 pandemic, bluefish landings projections through 2020 were not able to be developed as they were for 2019. Bluefish MRIP estimates for 2020 harvest broken down by wave were only available for Florida and North Carolina through wave 1 (Florida: 1,154,459 lbs, North Carolina: 7,140 lbs). However, estimates of overall effort for 2020 through wave 4 were available for all species combined and are summarized in Figures 3 and 4. Additionally, Table 4 further breaks down effort by mode for all species combined and shows that the percentage of fishing trips by private boats has increased from 2019-2020.


Figure 3. Coastwide fishing effort estimates combined for all species by year from 2018-2020.


Figure 4. Coastwide fishing effort estimates combined for all species by year and wave from 2018-2020.

Table 4. Coastwide fishing effort estimates combined for all species summarized as percentages by mode and wave from 2018-2020.

| Year | Mode | Wave 1 | Wave 2 | Wave 3 | Wave 4 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{2 0 1 8}$ | Party/Charter | $0.17 \%$ | $0.59 \%$ | $1.79 \%$ | $1.90 \%$ |
|  | Private | $26.33 \%$ | $29.45 \%$ | $35.88 \%$ | $38.28 \%$ |
|  | Shore | $73.50 \%$ | $69.96 \%$ | $62.33 \%$ | $59.82 \%$ |
|  | Party/Charter | $0.41 \%$ | $0.55 \%$ | $1.68 \%$ | $2.29 \%$ |
|  | Private | $34.20 \%$ | $29.36 \%$ | $33.78 \%$ | $35.92 \%$ |
|  | Shore | $65.39 \%$ | $70.08 \%$ | $64.54 \%$ | $61.79 \%$ |
|  | Party/Charter | $0.30 \%$ | $0.23 \%$ | $1.31 \%$ | $1.64 \%$ |
|  | Private | $28.23 \%$ | $38.78 \%$ | $34.05 \%$ | $40.71 \%$ |
|  | Shore | $71.47 \%$ | $60.98 \%$ | $64.64 \%$ | $57.65 \%$ |

## Accountability Measures

In 2013, the Council modified the recreational accountability measures (AMs) for Mid-Atlantic species through the Omnibus Recreational AM Amendment. In the event of an Annual Catch Limit (ACL) overage, recreational AMs no longer necessarily require a direct pound-for-pound payback of the overage amount in a subsequent fishing year. Instead, AMs are tied to stock status. Though paybacks may be required in some circumstances, any potential payback amount is scaled relative to biomass, as described below.

The ACL is evaluated based on a single-year examination of total catch (landings and dead discards). Both landings and dead discards are evaluated in determining if the ACL has been exceeded. If the ACL is exceeded, the appropriate AM is determined based on the following criteria:

Recreational landings AM when the ACL is exceeded and no sector-to-sector transfer of allowable landings has occurred. If the fishery-level ACL is exceeded and landings from the recreational fishery are determined to be the sole cause of the overage, and no transfer between the commercial and recreational sector was made for the fishing year, as outlined in $\S 648.162(\mathrm{~b})(2)$, then the following procedure will be followed:

If biomass is below the threshold, the stock is under rebuilding, or biological reference points are unknown. If the most recent estimate of biomass is below the Bmsy threshold (i.e., $\mathrm{B} / \mathrm{B}_{\mathrm{MSY}}$ is less than 0.5 ), the stock is under a rebuilding plan, or the biological reference points ( B or $\mathrm{B}_{\mathrm{msy}}$ ) are unknown, and the ACL has been exceeded, then the exact amount, in pounds, by which the most recent year's recreational catch estimate exceeded the most recent year's ACL will be deducted from the following year's recreational ACT, or as soon as possible thereafter, once catch data are available, as a single-year adjustment.

If the ACL has been exceeded. If the ACL has been exceeded, then adjustments to the recreational management measures, taking into account the performance of the measures and conditions that precipitated the overage, will be made in the following fishing year, or as soon as possible thereafter, once catch data are available, as a single-year adjustment.

## Monitoring Committee Responsibility

The MC must consider and recommend management measures to ensure that landings in 2021 will not exceed the 2021 RHL. Recreational possession limits, minimum fish size limits, and seasons can be modified to achieve this goal.

When considering management measures for future years, the MC operates under the assumption that fishery conditions remain fairly stable from year to year. In a typical year, the MC would project recreational harvest for 2020 and compare that to the 2021 harvest limit to determine how measures may need to be adjusted. However, preliminary 2020 bluefish estimates and harvest projections are not available this year due to gaps in recreational sampling related to the COVID19 pandemic. Recreational harvest in 2019 is also unlikely to be a good proxy for recent harvest, due to a substantial reduction in bag limit in mid-2020 to constrain harvest to a lower RHL. The currently implemented management measures were designed to achieve but not exceed an RHL of 9.48 million pounds, while the proposed 2021 RHL is 8.34 million pounds. Therefore, the MC could assume that status quo recreational management measures may result in a $\sim 12 \%$ overage in 2021, assuming trends in effort and catch rates remain similar to those used to develop 2020 measures.

## Staff Recommendation

The Council approved RHL of 8.34 M lbs is $12.03 \%$ lower than the 2020 RHL of 9.48 M lbs . Under normal circumstances, the reduced RHL would warrant increased management measures to constrain harvest, however, given the absence of MRIP angler intercept data in 2020 and timing of when state-specific bag limit went into effect in 2020 (Table 5), staff recommends status quo management measures for 2021. These measures include a coastwide 3-fish bag limit for private anglers and 5 -fish bag limit for for-hire anglers with no restrictions to minimum fish size or seasons.

Table 5. Dates when Atlantic coast states implemented the 2020 bluefish management measures. CE - indicates conservation equivalency.

| State | ME | NH | MA | RI | CT | NY | NJ | DE | MD | VA | NC | SC | GA | FL |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Date <br> Implemented <br> in 2020 | $1 / 1$ | $1 / 29$ | $5 / 1$ | $4 / 2$ | $3 / 26$ | $5 / 1$ | $4 / 1$ | $5 / 15$ | $2 / 1$ | $3 / 1$ | $2 / 1$ | $2 / 28$ | CE | TBD |

# Atlantic States Marine Fisheries Commission 

## MEMORANDUM

September 28, 2020

To: Bluefish Management Board<br>From: Bluefish Technical Committee<br>RE: Recommendations on Bluefish Age and Length Frequency Data Sampling

Technical Committee Members: Mike Celestino (Chair, NJ), Sam Truesdell (Vice Chair, MA), Kevin Sullivan (NH), Nicole Lengyel Costa (RI), Kurt Gottschall (CT), Sandra Dumais (NY), Richard Wong (DE), Eric Durell (MD), David Behringer (NC), Amy Zimney (SC), Joseph Munyandorero (FL), Anthony Wood (NEFSC), Matt Seeley (MAFMC), Katie Drew (ASMFC), Joseph Myers (ACCSP), Dustin Colson Leaning (ASMFC)

## Introduction

In August 2020, the Bluefish Management Board (Board) tasked the Technical Committee (TC) with reviewing the effectiveness of the Addendum I sampling design, specifically reevaluating the optimal geographic range and sample size for bluefish age data. The Board also tasked the TC with reviewing the increased importance of recreational discards in stock assessments. Currently, Rhode Island, Connecticut, and New Jersey have volunteer angler survey programs that provide release length data; additionally, data on released lengths also comes from the American Littoral Society (ALS) and the Marine Recreational Information Program (MRIP) (I9 at-sea releases from headboats), but more data may be needed to accurately capture discard trends along the entire coast. The robustness of stock assessments and catch accounting can be improved by generating reliable discard length data from recreational anglers and collecting age samples year round that are representative of all size classes and regions.

## Statement of the Problem

During the annual Plan Review Team's (PRT) review of the Bluefish Fishery Management Plan (FMP), the PRT identified a geographic and temporal mismatch between the age data sampling requirements under Addendum I and the current trends in bluefish landings across states. Under Addendum I, states that account for more than $5 \%$ of total coastwide bluefish harvest for the 1998-2008 period are required to collect a minimum of 100 bluefish ages ( 50 from January through June, 50 from July through December). Addendum I used MRIP data that relied upon the Coastal Household Telephone Survey for calculating the recreational state-specific apportionment of total harvest. MRIP has since transitioned to a new mail-in fishing effort survey. In July 2018, MRIP revised recreational catch estimates with a calibrated 1982-2017 time series that corresponds to the new MRIP survey methods. As such, the PRT thought it important that state contributions to coastwide harvest should be recalculated using the newly calibrated MRIP estimates as well as data from a more recent time period. In addition, the PRT noted the difficulty faced by some northern states in collecting age samples in the first half of the year when bluefish availability is frequently low due to the migratory nature of the stock. The PRT recommended the TC analyze state contribution to coastwide removals across two seasons (January-June and July-December) to resolve the mismatch between the Addendum I age sampling requirements and current trends in seasonal availability.

The 2019 operational stock assessment acknowledged the scaled up recreational landings and discards resulting from the new calibrated MRIP estimates had a significant impact on the assessments results. The report emphasized that accurately characterizing the recreational release lengths is integral to the assessment and any improvement to the methodology used to collect these data is recommended. Subsequently, the TC identified the need to expand the geographic range of where release lengths are sampled so they more accurately represent the stock-wide size composition of released bluefish. Currently Rhode Island, Connecticut, and New Jersey have volunteer angler survey programs that provide release length data; additionally, data on released lengths also comes from ALS and MRIP (I9 at-sea releases), but more data are needed to accurately capture discard trends along the entire coast. Figure 1 displays the spatial distribution of live releases and release length samples along the Atlantic coast. The figure demonstrates the lack of release length data coming from North Carolina and South Carolina, even though these two states comprised approximately $38 \%$ of the coastwide releases during the 2016-2018 period.

Figure 1. Spatial distribution of bluefish live releases and release length data
Legend and source: Red = release lengths - RI, CT, NJ volunteer angler surveys (RI 297 samples, CT 1057 samples, NJ 380 samples), American Littoral Society ( 660 samples), MRIP Type 9 ( 328 samples); blue $=$ MRIP estimates of live releases (B2s) across Atlantic coast states.


## Technical Committee Discussion on Age Data Sampling Requirements

Addendum I required Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Virginia, and North Carolina to collect age samples. Although Virginia did not meet the 5\% threshold of total coastwide harvest, it was required to maintain its sampling program that existed prior to Addendum I to sustain its collection of valuable age data. The TC determined the Addendum I sampling requirements should be revisited by analyzing recent trends in removals, relying upon new calibrated MRIP estimates. Table 1 displays coastwide removals
(landings plus dead discards ${ }^{1}$ ) by state using the base years 2010-2019. Percentages are provided for the full year (January-December), spring (January-June), and fall (July-December). Recent fishery trends and MRIP calibration has transitioned Florida from a less than 5\% contributor to coastwide harvest (Addendum I) to an approximately 15.4 \% contributor to coastwide harvest. Revised MRIP methods increased Florida's estimated landings of bluefish by an average of approximately $600 \%$ by weight during 1998-2008.

Table 1. Coastwide Bluefish Removals (commercial and recreational landings and dead discards) by State 2010-2019, based on revised MRIP estimates
Full year: January-December, Spring: January-June, Fall: July-December
Source: commercial data - ACCSP Data Warehouse, recreational data - Personal communication from the National Marine Fisheries Service, Fisheries Statistics Division. [September 2020]
Green indicates 4\% threshold has been met. The TC chose 4\% as the threshold because it would maintain all of the states that previously met the Addendum I threshold percentage while also accounting for inclusion of additional states as a result of MRIP calibration. As was done in Addendum I, Virginia would be required to maintain its biological monitoring program to support the age data collection effort.
The TC proposed to change the seasonal collection of 50 samples in the spring and 50 in the fall from a requirement to a target (seasonal target columns); targets based on fishery performance provides a range of target samples sizes that could be collected based on average availability (as suggested by average total removals).

| State | Coastwide Bluefish <br> Removals |  |  | Seasonal target |  | Annual <br> mandate | Targets based on <br> fishery performance |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Full year | Spring | Fall | Spring | Fall |  | Spring | Fall |
|  | $0.10 \%$ | $0.00 \%$ | $0.50 \%$ | - | - | - | - | - |
| NH | $0.10 \%$ | $0.00 \%$ | $0.20 \%$ | - | - | - | - | - |
| MA | $12.50 \%$ | $3.60 \%$ | $15.00 \%$ | 50 | 50 | 100 | $11-50$ | $50-89$ |
| RI | $4.10 \%$ | $2.70 \%$ | $6.80 \%$ | 50 | 50 | 100 | $24-50$ | $50-76$ |
| CT | $8.40 \%$ | $2.10 \%$ | $11.20 \%$ | 50 | 50 | 100 | $9-50$ | $50-91$ |
| NY | $20.70 \%$ | $17.90 \%$ | $21.20 \%$ | 50 | 50 | 100 | $33-50$ | $50-67$ |
| NJ | $17.70 \%$ | $20.90 \%$ | $19.50 \%$ | 50 | 50 | 100 | $44-50$ | $50-56$ |
| DE | $1.30 \%$ | $2.30 \%$ | $1.00 \%$ | - | - | - | - | - |
| MD | $1.60 \%$ | $0.50 \%$ | $3.20 \%$ | - | - | - | - | - |
| VA | $1.90 \%$ | $2.30 \%$ | $2.60 \%$ | 50 | 50 | 100 | $47-50$ | $50-53$ |
| NC | $13.70 \%$ | $18.20 \%$ | $8.20 \%$ | 50 | 50 | 100 | 50 | 50 |
| SC | $1.90 \%$ | $2.90 \%$ | $1.00 \%$ | - | - | - | - | - |
| GA | $0.10 \%$ | $0.10 \%$ | $0.10 \%$ | - | - | - | - | - |
| FL | $15.80 \%$ | $26.60 \%$ | $9.50 \%$ | 50 | 50 | 100 | $50-63$ | $37-50$ |

[^15]Table 1 also demonstrates the seasonal trends in bluefish availability to the recreational fishery as suggested by total seasonal removals. The challenge of collecting 50+ samples in the spring is highlighted by the contrast in New England states' spring and fall removals. Massachusetts, Rhode Island, and Connecticut have a much smaller contribution to spring coastwide removals compared to their contribution to the fall coastwide removals. In light of the collection challenges, the TC proposed to change the seasonal collection of 50 samples in the spring and 50 in the fall from a requirement to a target; the table above provides a range of target samples sizes that could be collected based on average availability (as suggested by average total removals). A target would preserve the importance of acquiring age data throughout the year, while still providing recognition of the historical seasonal availability of bluefish in certain states. The TC was concerned spring collections could become voluntary without some seasonal target sample size guidance. Most importantly, the TC agreed the requirement of collecting 100 samples should remain and states should not be penalized when unable to collect a seasonal target due to availability of fish when a good faith effort to collect samples has been made.

## Technical Committee Discussion on Release Length Sampling

An Atlantic Coastal Cooperative Statistics Program (ACCSP) staff member presented to the TC three options for electronic trip reporting that could be used for collecting recreational angler release data to remove the need for a state to create a new data collection system. SAFIS eTrips, SAFIS eLogbook, and the SAFMC Scamp Release application are all viable alternatives. SAFIS eTRIPs is the most robust reporting application that is mobile compatible. However, a potential drawback is the large number of required data entry fields, which could deter the average angler. SAFIS eLogbook is specifically designed for voluntary recreational reporting with the intent of reducing burden for private recreational captains. The downside is that SAFIS eLogbook is currently only offered on a web-based platform with no mobile version. The Scamp Release application is designed to collect information on scamp (Mycteroperca phenax) releases from commercial, for-hire, and recreational fishermen via a mobile platform, and could be modified to suit the needs of collecting bluefish release data. ACCSP is currently in the process of conducting scoping meetings and finding funds to develop a landings and discards reporting application that may be customized for use for multiple species. While the future development of this application is perhaps the most promising, its functionality is currently not readily available for bluefish.

While the TC expressed interest in these applications and the potential benefits to fisheries management, some TC members were concerned about the potential for bias in reporting by recreational anglers (self-selection bias, avidity bias, etc.). It was noted, it is possible to examine and correct for bias in data that are collected; but that assessment cannot occur without data. The TC pointed out that states have limited control over angler participation in a release length sampling program; thus there was some reticence about implementing specific state requirements related to participation. Ultimately the TC stressed the importance of acquiring additional information on bluefish releases as soon as possible, but not as a compliance requirement. Additionally, the TC recognized this need was not specific to bluefish, and the ASMFC's ISFMP Policy Board may be better suited for addressing this across all species.

The TC recommends the Board advance the importance of broadly collecting reliable recreational release length frequency data from all recreational species. The TC is supportive of ACCSP's efforts to develop a discard reporting application for multi-species use. The Policy Board is best suited to address the needs of a multispecies application and coordinating with the ACCSP Recreational Technical Committee. The TC emphasizes the importance of advancing a comprehensive data collection program that applies to more species than just bluefish. As such, the TC recommends the Bluefish Management Board ask the Policy Board to task either the Assessment Science Committee or the Management and Science Committee to work with ACCSP to develop a
comprehensive program for reporting released fish of all recreationally important species the Commission manages.

## Biological Monitoring Program recommendations

The TC recommends that the Board consider the following revisions to the Addendum 1 Biological Monitoring Program:

States that account for more than 4\% of total coastwide bluefish removals (recreational and commercial landings and dead discards) for the 2010-2019 period are required to collect a minimum of 100 bluefish ages. These states are: Massachusetts, Rhode Island, Connecticut, New York, New Jersey, North Carolina, and Florida. Virginia must continue its current sampling regime for bluefish and provide that same minimum 100 samples as the other states. States are required to achieve the target of collecting at least 50 samples in the spring (JanuaryJune) and 50 samples in the fall (July-December) subject to fish being available for collection. Table 1 provides additional guidance on seasonal targets that account for average seasonal availability. Additionally, every effort should be made to cover the full range of bluefish sizes with these samples. ${ }^{2}$ States who fail to meet the sampling targets due to availability of fish shall not be found out of compliance as long as it is demonstrated that a good faith effort was made to achieve the targets.

The PRT will continue to annually review the effectiveness of the sampling design and evaluate the optimal geographic range and sample size for bluefish age data. If changes are necessary to the sampling program, as recommended by the PRT or the TC, then sampling protocols should be modified through Board action for example, as part of the specification setting process.

In addition, states that comprise greater than 4\% of coastwide removals (Massachusetts, Rhode Island, Connecticut, New York, New Jersey, North Carolina, and Florida) for the period 2010-2019 are asked to make a good faith effort to collect discard length frequency data from their recreational fishery as soon as possible as part of a coastwide pilot program using the best tool for their stakeholders (e.g., one or more of the programs described above).

[^16]
# MEMORANDUM 

Date: $\quad$ December 4, 2020
To: Chris Moore, Executive Director
From: Julia Beaty, staff
Subject: Next steps for Recreational Reform Initiative Framework/Addendum and Amendment

## Introduction and Staff Recommendation

During their December 2020 joint meeting, the Mid-Atlantic Fishery Management Council (Council) and the Atlantic States Marine Fisheries Commission’s (Commission's) Summer Flounder, Scup, and Black Sea Bass Management Board will discuss next steps for the Recreational Reform Initiative.

The Recreational Reform Initiative considers improvements to management of the recreational fisheries for summer flounder, scup, black sea bass, and bluefish. The December 2020 discussion was scheduled as a joint meeting between the Council and the Summer Flounder, Scup, and Black Sea Bass Management Board; however, the Commission’s Bluefish Management Board and Policy Board were also notified.

During their October 2020 joint meeting, the Council and the Policy Board passed the following motion:

Move to initiate a joint framework/addendum to address the following topics for summer flounder, scup, black sea bass, and bluefish, as discussed today:

- Better incorporate MRIP uncertainty into management
- Develop guidelines for maintaining status quo measures
- Develop a process for setting multi-year measures
- Consider changes to the timing of federal waters measures recommendations
- Harvest control rule
and to also initiate an amendment to address recreational sector separation and recreational catch accounting such that scoping for the amendment would be conducted during the development of the framework/addendum.

Each topic is described in more detail on pages 3-17. Note that "better incorporate MRIP uncertainty into management" includes three specific objectives, as described in more detail later in this document.

Staff recommend that three of the prioritized topics be developed through a technical guidance document, rather than a framework/addendum. The rationale for this recommendation is that these topics are highly technical in nature and do not require changes to the Fishery Management Plans (FMPs). They would simply establish agreed upon guidelines for practices that the Monitoring and Technical Committees already have the flexibility to use and have used in the past. Further development of these topics through a technical guidance document would be more efficient than a joint framework/addendum. In addition, some of the topics included (e.g., identifying and smoothing outlier MRIP estimates) are highly technical in nature and may be challenging to explain in public hearings. The staff recommendation is summarized in Table 1.

Table 1: Staff recommendation for action type associated with each prioritized Recreational Reform Initiative Topic.

| Technical Guidance 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. |

*When the Council and Board passed the motion on page 1, it was understood that "better incorporate MRIP uncertainty into management" addressed these topics.

## Draft Timeline for Next Steps in 2021

Table 2 lists draft timelines for next steps in 2021 for development of a technical guidance document, a joint framework/addendum, and a joint amendment to address the prioritized Recreational Reform Initiative topics. These timelines assume the Council and Board approve the staff recommendation to develop some topics in a technical guidance document, rather than a joint framework/addendum. If the staff recommendation is not approved, then those topics would be developed through the framework/addendum and the timeline for that action could be longer than that listed below. These timelines take into consideration other ongoing priority actions for these species. All dates listed below are subject to change.
As shown in Table 2, the technical guidance document could be completed in 2021 and used in development of recreational management measures for 2022. The Council and Board could also take final action on the framework/addendum in 2021. Additional rulemaking for the framework/addendum would be needed in 2021.

The timeline for next steps on the amendment beyond 2021 are uncertain and will depend on the refined scope of the action, which will be determined after the scoping period, as well as the priority level of this action moving forward, considering other ongoing priorities.

Table 2: Draft timeline for next steps in 2021 for development of a technical guidance document, joint framework/addendum, and joint amendment to address all prioritized Recreational Reform Initiative topics. These timelines assume the Council and Board approve the staff recommendation to develop some topics in a technical guidance document, rather than a framework/addendum. If the staff recommendation is not approved, those topics would be developed through the framework/addendum and the timeline for that action could be longer than that listed below. Bold text indicates a potential joint meeting. All dates are subject to change.

| Month <br> in 2021 | Technical Guidance <br> Document | Framework/Addendum | Amendment |
| :---: | :--- | :--- | :--- |
| Jan | Form MC/TC subgroup or <br> other technical team | Form FMAT/PDT or <br> other group to assist with <br> analysis and development <br> of alternatives | Form FMAT/PDT |
| Feb | Further develop and | Development of <br> alternatives | Develop draft scoping <br> document |
| Mar | analyze topics | Council/Board review of <br> progress | Council/Board review and <br> refine alternatives |
| Apr | Council/Board approve <br> scoping document and <br> scoping plan |  |  |
| Jun | Further technical <br> development | Further develop <br> alternatives | Scoping |
| Jul | Council/Board review <br> draft document and <br> consider for approval | Council/Board review <br> alternatives and approve <br> draft addendum for public <br> hearings | Council/Board review <br> scoping comments and <br> define scope of action |
| -- | Public hearings, if desired <br> by states | FMAT/PDT development |  |
| Sep | -- | AP meeting to provide <br> input | fM alternatives |
| Oct | MC/TC consider for use <br> in 2022 recreational <br> specifications process | Council/Board take final <br> action | Council/Board review <br> alternatives |
| Nov |  |  |  |

## Technical Guidance Document Topics

As described above, staff recommend that the following three topics be further developed through a technical guidance document. Each of these topics are described in more detail below.

- Develop a process for identifying and smoothing outlier MRIP estimates (part of the prioritized topic of "better incorporate MRIP uncertainty into management").
- Evaluate the pros and cons of using preliminary current year MRIP data (part of the prioritized topic of "better incorporate MRIP uncertainty into management").
- Develop guidelines for maintaining status quo recreational management measures.


## Adopt a Process for Identifying and Smoothing Outlier MRIP Estimates

In recent years, the Commission’s Summer Flounder, Scup, and Black Sea Bass Technical Committee identified two MRIP black sea bass harvest estimates as outliers (i.e., New York 2016 wave 6 for all modes and New Jersey 2017 wave 3 private/rental mode only) and replaced them with smoothed estimates when developing state waters recreational management measures to prevent RHL overages. These smoothed estimates have not been used in other parts of the management process, including the stock assessment, RHL and ACL overage evaluations, and the setting of federal waters recreational management measures. Smoothed MRIP estimates have not been used in any parts of the management process for summer flounder, scup, or bluefish.

The Council and Board agreed that it would be beneficial to adopt a standardized process for identifying and adjusting (if needed) outlier MRIP estimates. This process would be applied to both high and low outlier estimates as appropriate and could be used for summer flounder, scup, black sea bass, and bluefish.

The Technical Committee used the Modified Thompson's Tau approach to identify the two outlier black sea bass estimates. They used two different methods to smooth those estimates. They agreed that the appropriate method may vary on a case by case basis. If guidelines are adopted for standardizing the process of identifying and smoothing outlier MRIP estimates, it will be important for the Monitoring and Technical Committees to maintain the discretion to deviate from this process if they provide justification for doing so.

The process currently used by the Monitoring and Technical Committees to recommend recreational management measures is not codified in the FMPs; therefore, a change to this method would not require an FMP framework/addendum or amendment.

## Evaluate the pros and cons of using preliminary current year data

Each fall, Council staff develop projections of recreational harvest of summer flounder, scup, and black sea bass in the current year to compare against the upcoming year's RHL. These projections combine preliminary current year harvest estimates through wave 4 (i.e., through August) with the proportion of harvest by wave in one or more past years. The Monitoring Committee provides recommendations on the appropriate methodology in any given year. The data used (e.g., one or multiple previous years) varies on a case by case basis.
A different process is used for bluefish. Historically, expected bluefish recreational harvest has been evaluated when considering a recreational to commercial transfer. Expected bluefish harvest was typically based on the previous year or a multiple year average and did not account for preliminary current year data.

These different methodologies were developed based on Monitoring Committee guidance. The FMPs do not prescribe which data should be used to develop recreational management measures, beyond requiring use of the best scientific information available. The Council and Board wish to evaluate the appropriateness of using preliminary current year data and data from one or multiple previous years to project harvest for comparison against the upcoming year's RHL. If the Council and Board wish to provide guidance to the Monitoring and Technical Committees on which data to use, then this could be considered through a technical guidance document. However, if they wish to place restrictions on the use of certain types of data (e.g., preliminary current year data), then an FMP framework/addendum may be necessary.

## Develop Guidelines for Maintaining Status Quo Recreational Management Measures

The Council and Board wish to consider standardized guidelines for comparing both recreational harvest data (all considerations described above related to outliers and preliminary data could apply) and multiple stock status metrics (biomass, fishing mortality, recruitment) when deciding if measures should remain unchanged. For example, poor or declining stock status indicators could require changes when status quo would otherwise be preferred.

The idea behind this concept is to establish a pre-determined, standardized checklist of metrics to evaluate when determining if recreational management measures can remain unchanged, should be more restrictive, or can be liberalized. For example, if projected recreational harvest falls within a pre-defined range above or below the next year's RHL (see framework/addendum topics, below), if recruitment and biomass trends are stable or increasing, if fishing mortality trends are stable or decreasing, and if fishing effort trends are stable or decreasing, then status quo management measures could be justified. Alternatively, if projected recreational harvest exceeds a pre-determined range above and below the RHL, if recruitment or biomass trends are declining, if fishing mortality is above the target level, or if fishing effort shows increasing trends, then more restrictive management measures may be needed. Decisions related to future management measures will be more complicated when these indicators show a mix of positive and negative signals. Therefore, it will be important for the Monitoring and Technical Committees to have the discretion to deviate from the pre-determined guidelines based on annual considerations.

The Recreational Reform Steering Committee referred to this as the "sign posts" method and drafted a preliminary example which was discussed at the October 2019 joint Council/Board meeting. ${ }^{1}$ However, other examples could be considered.
As previously noted, the FMPs do not prescribe which data should be used to develop recreational management measures, beyond requiring use of the best scientific information available. If the Council and Board wish to adopt guidelines on how to evaluate the available data, then this could be considered through a technical guidance document.

[^17]
## Framework/Addendum Topics

As described above, staff recommend that the following four topics be further developed through a joint framework/addendum. Each of these topics are described in more detail below.

- Envelope of uncertainty approach for determining if changes to recreational management measures are needed (part of the prioritized topic of "better incorporate MRIP uncertainty into management").
- Develop process for setting multi-year recreational management measures.
- Consider changes to the timing of federal waters measures recommendations.
- Harvest Control Rule proposal put forward by 6 recreational organizations.


## Envelope of Uncertainty Approach for determining if Changes to Recreational Management Measures are Needed

Under this approach, a pre-defined range above and below the projected harvest estimate (e.g., based on percent standard error) would be compared against the upcoming year's RHL. If the RHL falls within the pre-defined range above and below the projected harvest estimate, then no changes would be made to management measures.

In some recent years, the Monitoring and Technical Committees have made arguments for maintaining status quo measures for black sea bass and summer flounder based on percent standard error (PSE) values associated with MRIP estimates. The intent behind this approach is to develop a standard, repeatable, and transparent process to be used each year, rather than an ad hoc process. The Monitoring and Technical Committees would maintain the discretion to deviate from this process if they saw sufficient justification to do so.
This approach could be used in combination with other topics listed in this document, such as the process for identifying and smoothing outlier MRIP estimates, considerations related to the use of preliminary current year data, and considerations related to the timing of the recommendation for federal waters management measures.
The 2013 Omnibus Recreational Accountability Measures Amendment considered a similar approach using confidence intervals around catch estimates to determine if the recreational ACL had been exceeded; however, that amendment proposed using only the lower bound of the confidence interval, rather than the upper and lower bounds. For this reason, that portion of the amendment was disapproved by NOAA Fisheries.

## Develop Process for Setting Multi-Year Recreational Management Measures

The FMPs allow recreational catch and harvest limits to be set for up to three years at a time. However, each year the Council and Board consider recent data on recreational catch and harvest as well as updated stock status information, if available, before determining if the recreational possession limits, fish size limits, and open/closed seasons should be modified to ensure that the following year's RHL can be met but not exceeded. These annual considerations can result in frequent adjustments to the recreational management measures. Some Council and Board members have called this "chasing the RHL." This can be especially frustrating to stakeholders when availability is high and there is not a perceived conservation need to adjust the recreational management measures.

To address these issues, the Council and Board wish to further develop and evaluate a process for setting recreational management measures that apply for two years at a time, with a strong
commitment among all state and federal managers to making no changes in the interim year. This would include not reacting to new data that would otherwise allow for liberalizations or require restrictions. The Council and Board would react to these data when developing new recreational management measures for the following two years. The considerations described in the previous section regarding guidelines for maintaining status quo measures would not apply in the interim year. The Recreational Reform Steering Committee drafted a preliminary example process which was discussed at the October 2019 joint Council/Board meeting. ${ }^{2}$
An FMP framework/addendum would be required to allow for the use of multi-year recreational management measures in this way. For example, changes to the current accountability measure regulations would be needed. Additional considerations are needed regarding the MagnusonStevens Fishery Conservation and Management Act (MSA) requirements for annual ACL overage evaluation.

## Consider Changes to the Timing of Recommendations for Federal Waters Recreational Management Measures

Table 3 lists the timeline for development and implementation of recreational management measures for summer flounder, scup, and black sea bass in recent years. The timeline for bluefish has differed as preliminary current year data have not typically been used for bluefish.

The Council and Board wish to further evaluate the pros and cons of adopting federal waters recreational management measures in December (as is current practice for summer flounder, scup, and black sea bass), as opposed to earlier in the year, such as October or August.

The current process of recommending federal waters measures for the upcoming year in December can pose challenges for implementing needed changes in both federal and state waters in a timely and coordinated manner. It also limits how far in advance for-hire businesses can plan their trips for the upcoming year.
In recent years, changes to the federal recreational measures for summer flounder, scup, and/or black sea bass have not been implemented until May-July of the year in which the changes are needed. Adopting recommendations for federal waters measures in August or October could allow for changes to be implemented earlier in the year; however, fewer data on current year fishery performance would be available for consideration.
The current regulations associated with the recreational management measures for these species do not specify the time of year at which these decisions must be made. However, a change to this timeline would impact certain parts of the FMPs which are not defined in regulations. For example, Frameworks 2 and 6 to the Summer Flounder, Scup, and Black Sea Bass FMP include annual timelines for using conservation equivalency for summer flounder to consider if the federal waters recreational management measures should be waived in favor of state waters measures. For this reason, any changes to the timing of the federal waters measures recommendation should be done through a framework/addendum and cannot be addressed through a technical guidance document.

[^18]Table 3: Timeline for development and implementation of state and federal waters recreational management measures for summer flounder, scup, and black sea bass in recent years.

| Month | Action |
| :--- | :--- |
| August | Council/Board set or review next year's recreational catch and harvest limits. |
| Mid-October <br> through mid- <br> November | Monitoring Committee uses preliminary current year MRIP data through <br> wave 4 to project the full current year's harvest for comparison against the <br> next year’s RHL. The Monitoring Committee recommends changes to <br> recreational management measures, if needed. |
| December | Council/Board adopt federal waters recreational management measures for <br> the following year and agree on the overall level of reduction or liberalization <br> (if any) to be achieved by the combination of all state and federal waters <br> measures in the following year. |
| January - <br> April | States develop and Board reviews and approves state waters recreational <br> management measures for the current year. |
| May - July | Changes to federal waters measures implemented. |

## Harvest Control Rule

Six recreational organizations submitted a proposal called a Harvest Control Rule through the scoping period for the Summer Flounder, Scup, and Black Sea Bass Commercial/Recreational Allocation Amendment. ${ }^{3}$ This was originally put forward as an allocation proposal; however, after considering the advice of the FMAT and the Recreational Reform Steering Committee, the Council and Board agreed that the allocation aspects of this proposal are not feasible under the MSA. They expressed an interest in further considering the aspects of the proposal which address the setting of recreational management measures, considered independently from the commercial/recreational allocation aspects of the proposal. Specifically, they wished to further evaluate the proposal's recommendation for pre-determined recreational management measure "steps" associated with different biomass levels.

The conceptual idea behind this part of the proposal is to determine a range of pre-defined management measures which would be used at different biomass levels. The upper and lower bounds of these management measure "steps" would be informed by input from recreational stakeholders. The proposal states that the most liberal step would include the most liberal set of measures preferred by anglers when biomass is high. The proposal suggests that beyond a certain level, anglers do not "need" a smaller minimum fish size, higher bag limit, or longer open season. The most conservative step would include the most restrictive measures which could be tolerated without major loss of businesses such as bait and tackle shops and party/charter businesses. The proposal also suggests that there is a point at which making measures more restrictive no longer has a conservation benefit. These ideas are conceptual at this stage and have not been fully developed or analyzed. Fully developing these concepts would require extensive stakeholder input to meet the intent of the proposal.
The MSA requires that ACLs be set each year in pounds or numbers of fish, and that each ACL have associated AMs to prevent exceeding the ACL and to trigger a management response if an ACL is exceeded. The FMP must define a way to measure total removals (total dead catch) and

[^19]to evaluate performance relative to an ACL set in numbers of fish or pounds. This does not mean it is impossible to start with preferred measures and translate those into catch, but managers are still required to demonstrate that catch associated with the measures is not expected to exceed the ACL. Ultimately, managers must demonstrate that measures are expected to prevent overfishing.

To comply with these MSA requirements, each set of recreational measures should be clearly associated with projected catch levels. One concern with this approach is the feasibility of accurately predicting catch levels at each of the management measure steps. Even when recreational measures have remained similar across years, the resulting MRIP estimates have sometimes varied significantly. Total dead catch can vary substantially with external factors such as changing total and regional availability, recruitment events, or changing effort based on factors other than management measures. For these reasons, the pre-determined management measure steps, especially the upper and lower bounds, would be a starting point for consideration and would need to be regularly re-evaluated. The Council and Board could not commit to maintaining recreational management measures within a pre-determined range; however, the range could be put forward as a target.

The proposal suggests that higher levels of biomass correspond to higher levels of access, which could allow for liberalization of recreational measures. However, under current recreational fishery capacity, effort and catch can scale with biomass and availability, in some cases even under highly restrictive recreational measures. This complicates the assumption that recreational measures can liberalize when biomass increases. In addition, changes in the recreational fishery over time (e.g., general effort increases, species-specific effort changes, legal/policy constraints, and improved technology for targeting fish) further complicate the assumption that past recreational measures can be used to estimate expected future catch.

However, there are benefits to the transparency provided by a tiered management approach with clearly defined measures at each level. Additional exploration of the relationship between the effectiveness of recreational management measures and estimated biomass would also be worthwhile.

While some suggestions have been made for how to analyze and determine optimal recreational access levels and associated management measures at each biomass threshold, expertise outside of the FMAT and Council/Board may be required.

## Amendment topics

## Recreational Sector Separation

Recreational sector separation would entail managing the for-hire components of the recreational fisheries separately from anglers fishing on private or rental boats and from shore. The Council and Boards agreed that this topic should not be further considered through the ongoing amendments for summer flounder, scup, black sea bass, and bluefish and instead should be considered separately in a comprehensive manner for all four species.

Recreational sector separation could be considered through either separate allocations to the forhire sector and private anglers (including anglers fishing from private or rental boats and from shore), or as separate management measures for the two recreational sectors without a fully separate allocation, as summarized below.

## Sub-Allocation of the Recreational Annual Catch Limit or RHL

This option would specify within the FMP a percentage allocation to the for-hire recreational sector of either the ABC, the recreational ACL, or the RHL. There are several potential ways in which a separate allocation could be created as described below and illustrated in Figure 1. The differences between some options are nuanced, and the pros and cons of each approach should be further explored.
A. Current FMPs: The ABC is divided into the recreational ACL and the commercial ACL for summer flounder, scup, and black sea bass and the recreational ACT and commercial ACT for bluefish. Projected recreational discards are removed from the recreational ACL/ACT to derive the RHL. Both the private and for-hire recreational sectors are held to a single combined ACL/ACT and RHL. Evaluation of potential overages, and consequences for those overages, are considered for all recreational modes combined.
B. Separate ACLs: Under this approach, the ABC would be allocated three ways: into a private recreational ACL, a for-hire recreational ACL, and a commercial ACL. This method would require development of these three allocations, as well as separate AMs for the private recreational and for-hire sectors. The FMAT for the Summer Flounder, Scup, and Black Sea Bass Commercial/Recreational Allocation Amendment does not recommend this approach as it would impact the commercial allocation.
C. Recreational Sub-ACLs: Under this approach, the ABC would remain divided into the recreational ACL and commercial ACL based on the allocation approach defined in the FMPs. The recreational ACL would be further allocated into private and for-hire subACLs. This method would also require development of separate AMs for the private recreational and for-hire sectors. The FMAT for the Summer Flounder, Scup, and Black Sea Bass Commercial/Recreational Allocation Amendment recommends further development of this approach as it would maintain separation of the recreational sectors from the commercial sector, it allows for consideration of different discard trends by each recreational sector, and it allows for the full separation of accountability for overages (as opposed to separate RHLs, described below).
D. Separate RHLs: Under this approach, the private recreational and for-hire sectors would remain managed under a single recreational ACL. Separate RHLs could be developed for each sector for the purposes of determining management measures. Accountability under this option would likely be partially at the RHL level (in the sense that performance to the RHL could be evaluated for each recreational sector for the purposes of adjusting future management measures to constrain harvest to the RHL) and partially at the ACL level (in the sense that AMs must be established at the ACL level to trigger a response if the ACL is exceeded). This approach includes separate management of harvest only; dead discards are not included in RHLs and would be accounted for at the ACL level. The FMAT noted that separation at the RHL level does not represent full separation and would need to include joint accountability to a combined recreational ACL, which could be problematic if one sector is contributes more to an overage than the other.

Note that any approach creating separate ACLs or sub-ACLs would require the development of corresponding separate AMs.

In addition to determining where sector separation occurs, consideration should be given to which data sources and methods to use for sector allocation, including:

- How to use MRIP and/or VTR data in the allocations;
- Whether to allocate using catch (landings and dead discards) or harvest (related to the question of whether to allocate at the ACL or RHL level);
- Whether to allocate in numbers of fish or pounds;
- The base years or other method of evaluating this recreational sector data.


Figure 1: Conceptual flowcharts of potential recreational sector separation configurations including A) status quo, B) separate ACL allocations, C) sub-ACL allocations, and D) separate RHLs. This figure is based on the current management program for summer flounder, scup, and black sea bass. The commercial/recreational allocation for bluefish currently occurs at the ACT level.

Many scoping comments expressed an interest in sector separation to make better use of for-hire VTR data, which some stakeholders perceive as being more accurate than the MRIP for-hire estimates since vessels with federal for-hire permits are required to submit VTRs for every trip. However, there are also concerns about the accuracy of self-reported VTR data. VTR data also include only estimates of numbers of fish, not weight, so incorporating VTR data into allocations would require either establishing allocations based on numbers of fish, developing a method to estimate weights of harvested and discarded fish from the numbers reported on VTRs, or adding a required data field for weight to VTRs.
It is important to note that most states do not require that state-only permitted vessels submit VTRs and data from these groups would be missing if VTRs were used to determine for-hire allocations. Data from some state-specific VTR programs (e.g., New York) are incorporated into the MRIP estimates of for-hire effort; however, they are not incorporated into the MRIP estimates of catch as they have not been validated.
On average, for-hire VTR harvest is lower than the MRIP for-hire estimates since 1995 (Figure 2).

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Figure 2: Comparison of federal party/charter vessel VTR estimates of landed fish vs. MRIP estimated for-hire landed fish, 1995-2018, for a) summer flounder, b) scup, c) black sea bass, and d) bluefish.

The FMAT for the Summer Flounder, Scup, and Black Sea Bass Commercial/Recreational Allocation Amendment noted that there is currently some "borrowing" of data between the private angler and for-hire fisheries in the MRIP estimation process. For-hire estimation by MRIP incorporates some information from VTRs. While separate estimates for each recreational sector could serve as a basis for managing them separately, if the sectors were split completely, improvements would likely be needed in the sampling efforts for both sectors. Currently, much of the for-hire sampling for summer flounder, scup, and black sea bass is focused on discards, which provides information on the length frequency distribution of discarded fish that contributes to the discard estimates for the entire recreational fishery. Many of the length measurements for landings come from private anglers, which influences the mean weight of landed fish used to generate recreational harvest estimates.

Separate dead discard estimates in weight are not currently available by recreational sector. Technically it would be possible to generate these estimates, but it may not be entirely defensible. Calculation of sub-allocation options could use total dead catch in numbers of fish (for catch-based allocations for separate ACLs or sub-ACLs), or total harvest in numbers of fish or pounds (for harvest-based allocations for separate RHLs). Example allocations based on harvest in numbers of fish are shown in Table 4.

Table 4: Example approaches for calculating separate sub-allocations to private (i.e., private/rental and shore mode) and for-hire sectors, based on harvest in numbers of fish.

| Species | Approach | Years | Private | For-Hire |
| :---: | :---: | :---: | :---: | :---: |
| Summer <br> Flounder | 5 most recent years through 2018 | $2014-2018$ | $94 \%$ | $6 \%$ |
|  | 10 most recent years through 2018 | $2009-2018$ | $95 \%$ | $5 \%$ |
|  | 15 most recent years through 2018 | $2004-2018$ | $95 \%$ | $5 \%$ |
| Scup | 5 most recent years through 2018 | $2014-2018$ | $89 \%$ | $11 \%$ |
|  | 10 most recent years through 2018 | $2009-2018$ | $88 \%$ | $12 \%$ |
|  | 15 most recent years through 2018 | $2004-2018$ | $88 \%$ | $12 \%$ |
| Black Sea Bass | 5 most recent years through 2018 | $2014-2018$ | $86 \%$ | $14 \%$ |
|  | 10 most recent years through 2018 | $2009-2018$ | $87 \%$ | $13 \%$ |
|  | 15 most recent years through 2018 | $2004-2018$ | $82 \%$ | $18 \%$ |
| Bluefish | 5 most recent years through 2018 | $2014-2018$ | $97 \%$ | $3 \%$ |
|  | 10 most recent years through 2018 | $2009-2018$ | $96 \%$ | $4 \%$ |
|  | 15 most recent years through 2018 | $2004-2018$ | $95 \%$ | $5 \%$ |

The uncertainty in the recreational data by mode is an important consideration when determining if sector separation is appropriate. Because the uncertainty in the MRIP data increases as it is broken down by wave, state, and mode, the Council and Board would need to consider whether the benefits of sector separation outweigh the drawback of increased uncertainty when using modespecific data to set and evaluate catch limits and recreational measures.
As an example, MRIP percent standard errors (PSEs) were queried for the North and Mid-Atlantic regions (Maine through Virginia) for all for-hire modes combined and private/rental/shore modes combined for summer flounder, scup, and black sea bass. Table 5 shows that the PSEs increase for the for-hire mode when separated from the combined mode data. PSEs for the private/shore modes combined are slightly higher than those for all modes combined, but there is less of a difference from the combined modes PSEs given that private and shore estimates account for most harvest of these species. PSEs also vary by species.

There are no comparable estimates of uncertainty for VTR data because these data are not an expanded estimate associated with sampling uncertainty.

Table 5: MRIP PSEs for total catch in numbers of fish, North and Mid-Atlantic (Maine through Virginia) for summer flounder, scup, and black sea bass by mode, 2004-2019.

| Year | Summer Flounder |  | Scup |  |  | Black Sea Bass |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | All For- <br> Hire | Private/ <br> Shore | All <br> modes | All For- <br> Hire | Private/ <br> Shore | All <br> modes | All For- <br> Hire | Private/ <br> Shore | All <br> modes |
| 2004 | 13.8 | 5.9 | 5.7 | 28.4 | 15.4 | 14.4 | 19.7 | 16.3 | 14.2 |
| 2005 | 11.3 | 7.4 | 7.1 | 27.1 | 19.6 | 19.1 | 16.9 | 12.4 | 11 |
| 2006 | 16.8 | 8 | 7.7 | 18.1 | 16.1 | 15.4 | 15.3 | 11.1 | 9.8 |
| 2007 | 10.9 | 6.7 | 6.4 | 16.5 | 15.3 | 14.3 | 10.4 | 10.9 | 9.2 |
| 2008 | 10.1 | 6.5 | 6.3 | 16.8 | 11.6 | 10.5 | 9.5 | 15.7 | 14.4 |
| 2009 | 10.1 | 5.8 | 5.7 | 15.1 | 11.5 | 10.6 | 10.3 | 10.2 | 9.3 |
| 2010 | 12.6 | 6.8 | 6.7 | 24.8 | 10.4 | 9.8 | 12.0 | 23.2 | 21.8 |
| 2011 | 9.3 | 6.6 | 6.5 | 18.8 | 15.2 | 14.5 | 12.4 | 10.5 | 9.7 |
| 2012 | 9.9 | 11.3 | 11.1 | 16.4 | 12.3 | 11.3 | 10.1 | 9.7 | 9.1 |
| 2013 | 12.9 | 8.2 | 8.0 | 7.9 | 11.7 | 10.6 | 6.8 | 9 | 8.5 |
| 2014 | 18.2 | 8.6 | 8.2 | 17.8 | 10.5 | 9.7 | 13.5 | 8.4 | 7.6 |
| 2015 | 12.2 | 8 | 7.7 | 14.0 | 15.6 | 14.8 | 12.0 | 10.2 | 9.1 |
| 2016 | 8.5 | 8 | 7.8 | 10.6 | 10.5 | 10.0 | 7.1 | 8.5 | 7.9 |
| 2017 | 13.5 | 10.7 | 10.4 | 8.0 | 13.5 | 12.7 | 6.6 | 11.8 | 11.1 |
| 2018 | 8.7 | 6.6 | 6.4 | 9.2 | 8.6 | 8.1 | 9.6 | 6.3 | 5.7 |
| 2019 | 12.6 | 8.8 | 8.6 | 10.7 | 6.7 | 6.1 | 8.7 | 6.5 | 5.9 |
| AVG | $\mathbf{1 1 . 9}$ | $\mathbf{7 . 7}$ | 7.4 | $\mathbf{1 6 . 6}$ | $\mathbf{1 3 . 2}$ | $\mathbf{1 2 . 4}$ | $\mathbf{1 1 . 5}$ | $\mathbf{1 1 . 6}$ | $\mathbf{1 0 . 6}$ |

## Separate Management Measures for For-Hire vs. Private/Rental and Shore Modes Without Separate Allocations

Rather than creating a separate allocation for the for-hire sector, a degree of sector separation could be achieved by setting different management measures to account for the differing priorities and data for for-hire vs. private anglers (including the private/rental and shore modes).
Separate management measures by recreational sector are currently used in the bluefish fishery in federal and state waters and in a limited manner in state waters for scup and black sea bass. In the states of Massachusetts through New York, there are different scup possession limits for the for-hire sector at certain times of year. For black sea bass, Connecticut has a different possession limit for for-hire vessels during a certain time of the year.
It could be beneficial to develop a policy for how sector-specific measures should be developed, how accountability should be evaluated, and how adjustments would be applied to both recreational sectors. Such a policy could clarify the process for stakeholders and managers, reducing process uncertainty and increasing transparency when setting recreational measures.
Creating a policy for separate measures for for-hire vs private anglers does not require an amendment. This could possibly be done through specifications, or if not, through a framework/addendum. If separate allocations were created (see previous section), describing the process for setting separate recreational measures would be an inherent part of that option.

## Recreational Catch Accounting

The theme of improved recreational catch accounting was prominent in many scoping comments for the Summer Flounder, Scup, and Black Sea Bass Commercial/Recreational Allocation Amendment. Examples of changes recommended through scoping are listed below. The intent behind these recommendations is to reduce uncertainty in the recreational data. It is worth noting that MRIP is currently considered the best scientific information available for the recreational fisheries and will continue to be used for stock assessments and catch limit evaluations for the foreseeable future. MRIP is a national-level program and the Council and Commission have a very limited ability to influence changes to the MRIP estimates.

- Private angler reporting: Private angler reporting through smart phone apps has been explored in specific fisheries in other regions, and as of August 2020 is required in this region for blueline and golden tilefish. Consideration could be given to the feasibility of private angler reporting for summer flounder, scup, black sea bass, and bluefish given that these fisheries take place in state and federal waters, from shore and from private and for-hire vessels, and that there are millions of directed trips per year for each species (e.g., an estimated 8.7 angler trips for which summer flounder was the primary target, 2.7 million for which scup was the primary target, 1.4 million for which black sea bass was the primary target, and 5.3 million for which bluefish was the primary target in 2019). Given the scale of these recreational fisheries, mandatory private angler reporting may be a challenge to implement. Thorough consideration should be given to the potential levels of non-compliance and how this may impact the resulting data. It would be beneficial to consider lessons learned from other private angler reporting programs.
- Tagging programs: A few scoping comments suggested that anglers be issued tags for a specific number of fish each year. Tagging programs are used in some recreational fisheries, but they may be more appropriate for species with much lower harvest levels than summer flounder, scup, black sea bass, and bluefish. Consideration should be given to the pros and cons of moving forward with this approach compared to a traditional possession limit, especially considering the millions of participating anglers in the fisheries for these species. Ensuring that the program is fair and equitable is a challenge. For example, consideration would need to be given to who receives tags, how they are distributed, and how the program is administered.
- Mandatory tournament reporting: A few scoping comments recommended mandatory catch reporting for recreational fishing tournaments. During the May 2020 joint meeting, one Council/Board member questioned the value of mandatory reporting for tournaments given that tournament catch likely constitutes a very small percentage of total catch. An evaluation of summer flounder, scup, black sea bass, and bluefish catch in tournaments has not been performed and may be complicated by the lack of a centralized list of tournaments which would catch these species. Tournament catch of these species should be included in the MRIP estimates, but is not specifically designated as tournament catch.
- Enhanced VTR requirements: A few scoping comments recommended additional VTR requirements, such as requiring VTRs for for-hire vessels that do not have federal permits and reinstating "did not fish" reports for federal permit holders to better understand fishing effort.



## MEMORANDUM

Date: $\quad$ December 2, 2020
To: Chris Moore, Executive Director
From: Kiley Dancy, Karson Coutre, and Julia Beaty, Staff
Subject: Approval of Public Hearing Document and Commission Draft Amendment Document for the Summer Flounder, Scup, and Black Sea Bass
Commercial/Recreational Allocation Amendment

On Wednesday, December 16, the Council and Board will review and possibly approve a joint public hearing document for the Summer Flounder, Scup, and Black Sea Bass Commercial/Recreational Allocation Amendment. In addition, the Board will review and possibly approve the Commission's draft amendment document, which must be approved and released to the public 30 days prior to the first public hearing. Public hearings should be completed in February 2021 to ensure that any changes implemented through this action can be in place by January 1, 2022.

The briefing materials for this meeting include:

1) Draft joint public hearing document
2) FMAT meeting summary from November 5, 2020
3) White paper: Potential Effects of Alternative Allocation of Catch to Recreational and Commercial Sectors on the Probability of Overfishing
4) Action plan

The Commission's draft amendment document will be posted as supplemental on the meeting page.

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

## DRAFT PUBLIC HEARING DOCUMENT



December 2020

Prepared by the<br>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 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 is taken from both state ( $0-3$ miles offshore) and federal waters (3-200 miles offshore, also known as the Exclusive Economic Zone, or EEZ).

Comment may be submitted at [\# TBD] public hearings to be held [time frame], or via written comment until [date TBD]. Written comments may be sent by any of the following methods:

1. Online at [link to be added]
2. Email to the following address: [email TBD]
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 "Fluke, Scup, Sea Bass Allocation Amendment" on the outside of the envelope. If sending comments through email or fax, please write "Fluke, 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.
Interested members of the public are encouraged to attend any of the following [\# TBD] public hearings and to provide oral or written comments at these hearings.

| Date and Time | Location |
| :--- | :--- |
| Day, Date <br> Time | Location <br> Address/webinar details |

For additional information and updates, please visit: https://www.mafmc.org/actions/sfsbsb-allocation-amendment. If you have any questions, please contact either:

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### 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 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 has 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 (used to estimate catch rates) and its effort estimation methodology (namely, a transition from a telephone-based effort survey to a mail-based effort survey). These revisions 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 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 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 acceptable biological catch (ABC) increased by $69 \%$ compared to 2019. Although this led to an increase in the RHL, 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 catch accounting, 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 two 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.

### 3.3 What Happens Next?

This document is intended to solicit public comment via public hearings and through written input during the public comment period [January/February 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 Spring 2021. While the Commission’s actions are final for state waters ( $0-3$ miles from shore) upon approval of the amendment, 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 and annual catch targets, commercial quota, and RHL). Dead discards (discarded fish that are assumed to die) ${ }^{1}$ must be accounted for in the catch limits under both allocation approaches. Under both approaches, dead discards are subtracted from the catch limits to arrive at the sector-specific landings limit. The main difference between these approaches is the step in the calculations which applies the commercial/recreational allocation percentage. 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 ABC level, meaning the entire amount of allowable catch (including 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

[^20]landings and the amount expected to come 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 additional detail on example measures). 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: 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> - Dead discards must be projected 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. <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, ACTs, and landings limits (i.e., commercial quota and RHL) are required.
- 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 still 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 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 <br> years, approximate status quo harvest per sector <br> compared to 2017/2018, and average of other <br> approaches approved by Council/Board in June <br> 2020 |
| 1a-3: 40\% commercial, 60\% recreational | 2014-2018 base years |
| Summer Flounder Landings-based Allocation Percentages |  |
| Alternative | Basis (see Appendix B for details) |
| $\mathbf{1 a - 4 : \mathbf { 6 0 \% }}$ commercial, 40\% recreational | No action/status quo (1980-1989) |
| 1a-5: 55\% commercial, 45\% recreational | Same base years, new data (1981-1989; 1980 data <br> unavailable) |
| 1a-6: 45\% commercial, 55\% recreational | Multiple approaches: 2004-2018 and 2009-2018 <br> base years |
| $\mathbf{1 a - 7 : ~ 4 1 \% ~ c o m m e r c i a l , ~ 5 9 \% ~ r e c r e a t i o n a l ~}$ | 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) |
| 1b-1: 78\% commercial, 22\% recreational | No action/status quo |
| 1b-2: 65\% commercial, 35\% recreational | Same base years, new data (1988-1992) |
| 1b-3: 61\% commercial, 39\% recreational | Multiple approaches: 2009-2018 base years and average of other approaches approved by Council/Board in June 2020 |
| 1b-4: 59\% commercial, 41\% recreational | Approximate status quo harvest per sector compared to 2018/2019 |
| Scup Landings-based Allocation Percentages |  |
| Alternative | Basis (see Appendix B for details) |
| 1b-5: 57\% commercial, 43\% recreational | Multiple approaches: Same base years, new data; 2014-2018 base years; 2009-2018 base years |
| 1b-6: 56\% commercial, 44\% rec | 2004-2018 base years |
| 1b-7: 50\% commercial, 50\% recreational | Approximate status quo harvest per sector 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. However, 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 | Basis (see Appendix B for details) |
| :--- | :--- |
| Alternative | Approximate status quo harvest per sector compared <br> to 2018/2019 |
| $\mathbf{1 c - 1 : ~ 3 2 \% ~ c o m m e r c i a l , ~ 6 8 \% ~ r e c r e a t i o n a l ~}$ |  |
| 1c-2: 28\% commercial, 72\% recreational | 2004-2018 base years |
| $\mathbf{1 c - 3 :} \mathbf{2 4 \%}$ commercial, 76\% recreational | 2009-2018 base years |
| Black Sea Bass Landings-based Percentages |  |
| Alternative | Basis (see Appendix B for details) |
| $\mathbf{1 c - 4 :} \mathbf{4 9 \%}$ commercial, 51\% recreational | No action/status quo |
| $\mathbf{1 c - 5 : ~ 4 5 \% ~ c o m m e r c i a l , ~ 5 5 \% ~ r e c r e a t i o n a l ~}$ | Same base years, new data (1983-1992) |
| 1c-6: 29\% commercial, 71\% recreational | Multiple approaches: Approximate status quo <br> harvest per sector compared to 2018/2019and <br> average of other approaches approved by <br> Council/Board in June 2020 |
| $\mathbf{1 c - 7 : ~ 2 2 \% ~ c o m m e r c i a l , ~ 7 8 \% ~ r e c r e a t i o n a l ~}$ | 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. A more complete impacts analysis, including consideration of the potential impacts on other components of the environment such as non-target species, habitat, 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.

This section contains example projected RHLs and commercial quotas for each allocation alternative to demonstrate potential impacts to the recreational and commercial fisheries. The 2020 ABC 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. Use of a different method was necessary to account 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. As such, the use of one method for projecting landings limits across all allocation alternatives, including the status quo allocation alternative, is necessary for a true side-by-side comparison of impacts. A more detailed description of the methodology used to generate example RHLs and quotas can be found in Appendix C.

### 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 increased RHLs compared to 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 the RHL to be achieved, but not exceeded. 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 decrease commercial quotas compared to the current allocations. The commercial sector may experience a loss in revenue due to corresponding decreased 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 ${ }^{2}$ 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; 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 reduced substantially, 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 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 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 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

[^21]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. ${ }^{3}$

## 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, a new large year class can lead to high availability of fish smaller than the minimum size for a few years, which can lead to increased 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 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, 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 through the specifications process, an increase in allocation to the recreational sector may allow for a liberalization of these measures and could increase access to anglers. A

[^22]reduction in the minimum size 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 provides a comparison of 2018-2019 average landings and example RHLs and commercial quotas associated with each allocation alternative that were derived from the analysis in Appendix C using the 2020 ABC . All alternatives represent an increase in allocation to the recreational sector relative to the no action/status quo alternative (1a-4). The example RHL associated with the no action/status quo alternative is $4 \%$ lower than average 2018-2019 harvest, suggesting that recreational harvest could remain similar to recent levels under this alternative if ABC remains at levels similar to 2020. All other allocation alternatives project RHLs that are higher than 20182019 average landings. The projected RHLs for alternatives 1a-1, 1a-2, 1a-3, 1a-6, and 1-a7 exceed 2018-2019 recreational landings by more than $30 \%$ which indicates that a liberalization of recreational measures may be possible, depending on actual future RHLs as well as current and future harvest trends, under the aforementioned allocation alternatives.

As previously stated, all the summer flounder alternatives would reduce the allocation to the commercial sector, with the exception of the no action/status quo alternative (1a-4). Table 5 demonstrates that the 2018-2019 average landings value is less than the projected commercial quotas under all alternatives. However, the 2018-2019 landings were restricted by quotas that were below-average for the time series, and it is likely that the commercial allocation reductions under non-status-quo alternatives would be limiting on the commercial fishery's effort and revenues for summer flounder.

Starting January 1, 2021, as the result of Amendment 21 to the FMP, ${ }^{4}$ 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 allocations that have been in place since Amendment 2 (1993). Any surplus quota above 9.55 million pounds will be allocated 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 fall 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 1). Using the equation in Figure 1, 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 actually decrease to $\$ 20.2$ 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. This simplified example does offer some limited support that full utilization of the quota under the highest commercial quota alternative may not maximize fisherywide revenues.

[^23]Table 5: Comparison of 2018-2019 summer flounder landings to example RHLs and commercial quotas for each allocation alternative under the 2020 ABC ( 25.03 million pounds) and the assumptions outlined in Appendix C. (Landings and limits in millions of pounds; 2018-2019 landings provided by the Northeast Fisheries Science Center or NEFSC).

| Alternative | 1a-1 | 1a-2 | 1a-3 | 1a-4 | 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 | 11.10 | 10.20 | 8.38 | 7.65 |
| 2018-2019 avg comm. landings | 7.60 |  |  |  |  |  |  |
| \% Difference from 20182019 Com Landings | 16\% | 13\% | 4\% | 46\% | 34\% | 10\% | 1\% |
| Example RHL | 10.24 | 10.47 | 11.15 | 7.40 | 8.34 | 10.25 | 11.02 |
| 2018-2019 avg rec. landings | 7.70 |  |  |  |  |  |  |
| \% Difference from 20182019 Rec Landings | 33\% | 36\% | 45\% | -4\% | 8\% | 33\% | 43\% |



Figure 1: 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 provides a comparison of 2017-2019 average landings and example RHLs and commercial quotas associated with each allocation alternative that were derived from the analysis in Appendix C using the 2020 ABC . Under the no action/status quo alternative for scup (alternative $1 \mathrm{~b}-1$ ), 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;

Table 6). Alternatives 1b-2 through 1b-7 would increase the recreational allocation; however, 1b7 is the only alternative that projects an example RHL that is higher than 2017-2019 average recreational harvest. 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.

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. Recent landings fall below the example quotas shown in Table 6 for all alternatives. However, alternatives 1b-2 through 1b-7 may limit the potential for market expansion and future increases in landings and ex-vessel revenue compared to the no action/status quo alternative (1b-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 $1 \mathrm{~b}-2$ through $1 \mathrm{~b}-7$ 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.

Along with scup commercial landings potentially varying under the different 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 1b-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 1b-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 scup harvesting fleet as a whole.

Table 6: Comparison of 2017-2019 scup landings to example RHLs and commercial quotas for each allocation alternative under the 2020 ABC ( 35.77 million pounds) and the assumptions outlined in Appendix C. (Landings and limits in millions of pounds; 2017-2019 landings provided by NEFSC).

| Alternative | 1b-1 | 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 | 22.91 | $\mathbf{1 6 . 9 0}$ | 15.92 | 15.44 | 16.85 | 16.56 | 14.81 |  |  |  |
| 2017-2019 avg comm. <br> landings | 14.20 |  |  |  |  |  |  |  |  |  |
| \% Difference from <br> 2017-2019 Com <br> Landings | $61 \%$ | $19 \%$ | $12 \%$ | $9 \%$ | $19 \%$ | $17 \%$ | $4 \%$ |  |  |  |
| Example RHL | 6.46 | 11.04 | 13.04 | 13.04 | 12.71 | 13.01 | 14.81 |  |  |  |
| 2017-2019 avg rec. <br> landings | 13.55 |  |  |  |  |  |  |  |  |  |
| \% Difference from <br> 2017- 2019 Rec <br> Landings | $-52 \%$ | $-19 \%$ | $-4 \%$ | $-4 \%$ | $-6 \%$ | $-4 \%$ | $9 \%$ |  |  |  |



Figure 2. 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 average 2018-2019 landings to example commercial quotas and RHLs under each
allocation alternative calculated based on the analysis described in Appendix C. As shown in Table 7, alternatives $1 \mathrm{c}-3$ and $1 \mathrm{c}-7$ result in example RHLs that are greater than average 2018-2019 recreational harvest; therefore, these alternatives could allow for some liberalizations in recreational management measures if ABCs remain at levels similar to 2020. This could result in increased angler satisfaction and increased revenues for for-hire businesses and other businesses that support recreational fisheries, compared to 2018-2019. Under alternatives 1c-2, 1c-4, and 1c5, the example RHLs are lower than average 2018-2019 recreational harvest. Therefore, these alternatives could require reductions in the bag limit, shorter open seasons, or increases to the minimum fish size to prevent future RHL overages. These restrictions 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.

As shown in Table 7 , under the assumptions described in Appendix C, alternatives 1c-2, 1c-3, and $1 \mathrm{c}-7$ result in example commercial quotas that are $15 \%, 24 \%$, and $25 \%$ lower, respectively, than average 2018-2019 commercial landings. Therefore, they would be expected to result in a reduction in commercial landings and revenues compared to recent fishery conditions. Alternatives $1 \mathrm{c}-1$ and 1c-6 result in example quotas that are 5\% and 3\% lower, respectively, than 2018-2019 average commercial landings. Therefore, depending on annual considerations, these alternatives could result in commercial landings and revenues that are either similar or slightly lower than recent levels. Alternatives $1 \mathrm{c}-4$ and $1 \mathrm{c}-5$ result in example quotas that are $55 \%$ and $44 \%$ higher, respectively, than average 2018-2019 commercial landings; therefore, they could result in increased commercial landings and revenues compared to recent conditions.

It is important to note that all example quotas assume that the ABC is similar to the 2020 ABC, which was higher than any previous ABC for black sea bass. The commercial quotas for 2020 ( 5.58 million pounds) and 2021 ( 6.09 million pounds) are $59 \%$ and $73 \%$ higher than 2018-2019 ( 3.52 million pounds in both years); therefore, it is useful to compare the example commercial quotas not only to average 2018-2019 commercial landings, but also to the 2020 and 2021 commercial quotas. The commercial black sea bass fishery has landed close to the quota for many years. Although commercial landings in 2020 and 2021 are unknown (and will likely be atypical due to the impacts of Covid-19 on market demand), it can be assumed that all alternatives except the no action/status quo alternative (alternative $1 \mathrm{c}-4$ ) could require a reduction in allowable commercial landings compared to 2020-2021, as they would result in a lower quota than the quota implemented for 2020-2021, assuming the same ABC level. However, as stated above, they would not require a reduction in landings compared to 2018-2019. This reduction in potential commercial landings could be considered a negative socioeconomic impact.
None of the alternatives project landings limits that would prevent a need for restrictions in both the recreational and commercial sectors, based on the assumptions described in Appendix C. Alternatives $1 \mathrm{c}-1$ and $1 \mathrm{c}-6$ represent roughly equal and relatively small potential restrictions needed in both sectors compared to average 2018-2019 landings.

Ex-vessel prices for commercial landings may also change in response to the different potential quota levels under each alternative (Figure 3). 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 1c-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 ex-
vessel revenue. If the same process is followed for the alternative 1c-4 example quota ( 5.43 million lbs.), 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.

Table 7: Comparison of 2018-2019 black sea bass landings to example RHLs and commercial quotas for each allocation alternative under the 2020 ABC ( 15.07 million pounds) and the assumptions outlined in Appendix C. (Landings and limits in millions of pounds; 2018-2019 landings provided by the NMFS Greater Atlantic Regional Fisheries Office).

| Alternative | 1c-1 | 1c-2 | 1c-3 | 1c-4 | 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 | 5.43 | 5.04 | 3.38 | 2.61 |
| 2018-2019 avg com. landings | 3.50 |  |  |  |  |  |  |
| \% Difference from 2018-2019 com. <br> Landings | -5\% | -15\% | -24\% | 55\% | 44\% | -3\% | -25\% |
| Example RHL | 8.16 | 8.65 | 9.14 | 5.65 | 6.15 | 8.28 | 9.27 |
| 2018-2019 avg rec. landings | 8.73 |  |  |  |  |  |  |
| \% Difference from 2018- 2019 rec. landings | -7\% | -1\% | 5\% | -35\% | -30\% | -5\% | 6\% |



Figure 3. 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 $1 \mathrm{~d}-1$, no phase in) or if the change should be spread over 2,3 , or 5 years (alternatives $1 \mathrm{~d}-2$ 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 under consideration in this amendment 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, and usually varies from the landings-based allocation percentage. As a result, under a landings-based allocation, the percentage of ABC (landings + dead discards) assigned to each sector typically varies from year to year and does not usually match the landings-based allocation percent. To illustrate this, the 2021 percent split of landings, dead discards, and sector Annual Catch Limits (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) | Comm. \% <br> of discards <br> in 2021 | Rec. \% of <br> discards in <br> $\mathbf{2 0 2 1}$ | Comm <br> ACL \% of <br> ABC in <br> 2021 | 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> 2021 | Comm. \% <br> of discards <br> in 2021 | 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 | 74 | 23 | 81 | 19 | 78 | 22 |

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 | $11(100 \%)$ | $22(100 \%)$ | $33(100 \%)$ |

### 4.3.2.1 Summer Flounder Phase-In Impacts

If the summer flounder allocation is modified but a landings-based allocation system is maintained (alternatives 1a-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 approach (alternatives 1a-1 through 1a-3), dead discards would first need to be incorporated into the current baseline to determine the total and annual percent 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 catch by sector. Specifically, the percentage of the ABC that each sector will receive in 2021 as a sector ACL should be used as the starting point for calculating transition percentages.

For summer flounder, in 2021, the commercial ACL represents $54 \%$ of the ABC and the recreational ACL represents $46 \%$ of the ABC. 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\% | 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 | 2.2\% shift per year |
| 1a-3: 40\% commercial, 60\% 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): 60\% commercial, 40\% recreational | 0\% | N/A | N/A | N/A |
| 1a-5: 55\% commercial, 45\% recreational | 5\% | 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\% | 9.5\% shift per year | 6.3\% shift per year | 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.
${ }^{\mathrm{b}}$ 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 needed (if allocations are modified) from the commercial to the recreational fishery would range from 5-19\% from current measures, 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.

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, potentially tempering declines in ex-vessel revenue. The recreational sector 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 $1 \mathrm{~d}-2$ ) is expected to have positive 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. This has implications for recreational management measures, which may be able to 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. However, this is also dependent on future projections of stock biomass, trends in recreational catch and effort, and other factors. If recreational measures are able to be liberalized, this could result in a decrease in recreational discards. Alternatives $1 \mathrm{~d}-3$ and 1d4 (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

For scup, the current allocation is catch-based. If the allocation is modified but a catch-based allocation system is maintained (alternatives $1 \mathrm{~b}-2$ through $1 \mathrm{~b}-4$ ), 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 approach (alternatives 1b-5 through 1b-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) should be used as the starting point for calculating transition percentages.

For scup, in 2021, the commercial quota represents 77\% of the TAL and the RHL represents 23\% of the TAL. 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\% | 10.5\% shift per year | 7\% shift per year | 4 \% shift per year |
| 1b-7: 50\% commercial, 50\% recreational | 27\% | 13.5\% 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 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. 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 of 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 measures, 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.

As described in Section 4.2, a decline in commercial allocation is expected to lead to loss of revenue especially in states where the commercial allocation is fully utilized. However, the potential loss in revenue may be partially offset by the increase in demand due to reduced commercial allocations across the management unit. In addition, for scup, the commercial quota has not been fully utilized in recent years, which is expected to help offset negative impacts to the commercial sector. 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. 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 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 $1 \mathrm{~d}-3$ and $1 \mathrm{~d}-4$ (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.

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 positive 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. 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 severe restrictions that would otherwise be taken). 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 may be able to be liberalized under an increased allocation. 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 scup. This is likely to mean that recreational measures and fishing opportunities will need to be restricted during the transition years, possibly severely given recent MRIP estimates, 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 system is maintained (alternatives $1 \mathrm{c}-5$ through 1c-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 approach (alternatives 1c-1 through $1 \mathrm{c}-3$ ), 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 should be used as the starting point for calculating transition percentages.

For black sea bass, in 2021, the commercial ACL represents 55\% of the ABC and the recreational ACL represents $45 \%$ of the ABC. 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, 68\% recreational | 23\% | 11.5\% shift per year | 7.7\% shift per year | 4.6\% shift per year |
| 1c-2: 28\% commercial, 72\% recreational | 27\% | 13.5\% shift per year | 9.0\% shift per year | 5.4\% shift per year |
| 1c-3: 24\% commercial, 76\% recreational | 31\% | 15.5\% 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): 49\% commercial, <br> 51\% recreational | 0\% | N/A | N/A | N/A |
| 1c-5: 45\% commercial, 55\% recreational | 4\% | 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\% | 13.5\% 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.
${ }^{\mathrm{b}}$ 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 of 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.

As described in Section 4.2, a decline in commercial allocation is expected to lead to loss of revenue, especially in states where the commercial allocation is fully utilized. However, the potential loss in revenue may be partially offset by the increase in demand due to reduced commercial allocations across the management unit. 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 $1 \mathrm{c}-4$ ). 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 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 $1 \mathrm{~d}-2$ ) is expected to have positive 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. This has implications for recreational management measures, which for black sea bass, are currently resulting in harvest levels much 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 black sea bass measures could remain the same (avoiding severe restrictions that would otherwise be taken). 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, recreational measures may be able to be liberalized under an increased allocation. Alternatives 1d-3 and 1d-4 (a 3- or 5year phase-in, respectively), would provide a longer transition to an increased recreational allocation for black sea bass. This is likely to mean that recreational measures and fishing opportunities will need to be restricted during the transition years, possibly severely given recent MRIP estimates, 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 2a, 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 would have the ability to 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. The Council and Board 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 sub-alternatives 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 $\mathbf{2 b}$.

| 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 and 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 posttransfer 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.

### 5.1 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 is experiencing a surplus. However, the process for determining when a transfer is needed and how much to transfer could be complex for these species, 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, longer-term solutions could be needed to make necessary adjustments to the allocation, such as an FMP amendment (or framework/addendum if these provisions, as discussed in Section 6.0, are adopted by the Council and Board).

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.

Under alternative $\mathbf{2 b}$, there are impacts associated with the proposed transfer process as well as impacts associated with the transfers themselves, as described below.

### 5.2.1 Impacts of the Proposed Process

A major disadvantage of the process proposed in Section 5.1.1 is that it 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 that the transfer would actually occur. 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 inherently 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. Frequent changes in management are often needed (especially in the recreational fisheries), and the effects of these changes on expected harvest must be considered in determining a transfer amount (both past and expected future changes to measures). 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 is not likely to 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, it is thought that transfer provisions may be more useful for the scup fishery (given that the fishery has not been fully utilized in recent 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. If these landings limits are modified by either the Council and Board or the NMFS Greater Atlantic Regional Fisheries Office (GARFO), the MC's transfer recommendation may no longer be
appropriate. It could be difficult for the Council and Board to adopt a modified transfer amount during this meeting if needed.

The conclusion about whether or not a transfer is needed is likely to 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.

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.

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 measures when a reduction may otherwise be needed, and a reduced risk of an RHL or ACL overage that may impose negative consequences in a future year. These outcomes are likely to 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 frequently 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. 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. 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 2c-2) would accomplish this more so than a larger cap (alternative 2c-4).

Under all alternatives, potential fluctuation in allocation from year to year can partially negate the positive impacts from a transfer even if a cap is in place, although transfer caps under alternatives 2c-2 through 2c-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. This would indicate that longerterm adjustments through an action to modify the FMP may be needed.

Table 17 shows what a $5 \%, 10 \%$, and $15 \%$ transfer cap would look like 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 $A B C$ and will vary as ABCs rise and fall.

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 2c-2 through 2c-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 |
| 2c-3: 10\% of ABC | 2017-2021 Low Transfer Cap | 1.13 | 2.84 | 0.89 |
|  | 2017-2021 High Transfer Cap | 2.71 | 3.91 | 1.75 |
| 2c-4: 15\% of ABC | 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) 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 reviews simpler and less time consuming. The Council adopted an allocation review policy in $2019^{5}$, 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

[^24]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

In general, the framework/addendum alternatives considered in this action are primarily procedural in nature and are intended to simplify and improve the efficiency of future actions to the extent possible. 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). The impacts of alternatives 3a and 3b are briefly described below.

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. 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) or an FMP addendum (for the Commission) and would not have any direct impacts on the environment or human communities as this alternative is primarily procedural. 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 ${ }^{6}$, 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

[^25]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 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 4).


Figure 4: 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, 1 b - scup, and 1c - 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 1c-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 $2017 .{ }^{7}$

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 5 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 5: Scatterplot of black sea bass recreational discards and landings (2004-2018).


## Deriving Landings Limits for Catch-based Allocation Shares

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 $A B C$ 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 regression approach was used to determine the example commercial quota and RHL rather than using the actual implemented 2020 limits in order to make these values more comparable to the other alternatives.

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 | 1c-1 | 1c-2 | 1c-3 | 1c-4 | 1c-5 | 1c-6 | 1c-7 |
| Com. allocation | 32\% | 28\% | 24\% | 49\% | 45\% | 29\% | 22\% |
| Rec. allocation | 68\% | 72\% | 76\% | 51\% | 55\% | 71\% | 78\% |
| Commercial ACL | 4.82 | 4.22 | 3.62 | 7.94 | 7.32 | 4.69 | 3.47 |
| Commercial discards | 1.51 | 1.23 | 0.95 | 2.51 | 2.28 | 1.31 | 0.85 |
| Commercial quota | 3.31 | 2.99 | 2.66 | 5.43 | 5.04 | 3.38 | 2.61 |
| Recreational ACL | 10.25 | 10.85 | 11.45 | 7.13 | 7.75 | 10.38 | 11.60 |
| Recreational discards | 2.08 | 2.20 | 2.32 | 1.48 | 1.60 | 2.10 | 2.34 |
| RHL | 8.16 | 8.65 | 9.14 | 5.65 | 6.15 | 8.28 | 9.27 |

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 | 1b-1 | 1b-2 | 1b-3 | 1b-4 | 1b-5 | 1b-6 | 1b-7 |
| Com. allocation | 78\% | 65\% | 61\% | 59\% | 57\% | 56\% | 50\% |
| Rec. allocation | 22\% | 35\% | 39\% | 41\% | 43\% | 44\% | 50\% |
|  |  |  |  |  |  |  |  |
| Commercial ACL | 28.12 | 23.25 | 21.82 | 21.10 | 21.49 | 21.18 | 19.27 |
| Commercial discards | 5.21 | 6.35 | 5.90 | 5.67 | 4.65 | 4.62 | 4.46 |
| Commercial quota | 22.91 | 16.90 | 15.92 | 15.44 | 16.85 | 16.56 | 14.81 |
| Recreational ACL | 7.65 | 12.52 | 13.95 | 14.67 | 14.28 | 14.59 | 16.50 |
| Recreational discards | 1.18 | 1.48 | 1.58 | 1.62 | 1.57 | 1.59 | 1.70 |
| RHL | 6.46 | 11.04 | 13.04 | 13.04 | 12.71 | 13.01 | 14.81 |

Table 23: Summer flounder example quotas and RHLs in millions of pounds, under an ABC of 25.03 million pounds.

| Summer Flounder |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2020 ABC: 25.03 mil lb. | CATCH-BASED |  |  | LANDINGS-BASED |  |  |  |
| Alternative | 1a-1 | 1a-2 | 1a-3 | 1a-4 | 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 | 13.67 | 12.69 | 10.72 | 9.92 |
| Commercial discards | 2.22 | 2.19 | 2.10 | 2.58 | 2.49 | 2.33 | 2.26 |
| Commercial quota | 8.79 | 8.57 | 7.92 | 11.10 | 10.20 | 8.38 | 7.65 |
| Recreational ACL | 14.02 | 14.27 | 15.02 | 11.36 | 12.34 | 14.31 | 15.11 |
| Recreational discards | 3.77 | 3.80 | 3.87 | 3.96 | 3.99 | 4.07 | 4.10 |
| RHL | 10.24 | 10.47 | 11.15 | 7.40 | 8.34 | 10.25 | 11.02 |

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 |

# Summer Flounder, Scup, Black Sea Bass <br> Commercial/Recreational Allocation Amendment 

# FMAT Meeting Summary 

November 5, 2020, 9:00 AM-11:00 AM

Attendees<br>FMAT members: Greg Ardini, Julia Beaty, Dustin Colson-Leaning, Karson Coutre, Kiley Dancy, Marianne Ferguson, Emily Keiley, Gary Shepherd, Caitlin Starks, Mark Terceiro, Tony Wood, Savannah Lewis<br>Others: Paul Rago, Mike Waine, Joe Cimino, Greg DiDomenico, Dewey Hemilright, Michelle Duval, Tony DiLernia

## Meeting objectives

The objectives of this meeting were for the Fishery Management Action Team (FMAT) to 1) review and discuss the analysis performed by Paul Rago in response to the Council and Board's request to evaluate impacts of allocation changes on the risk of exceeding the ABC/OFL and 2) review and provide preliminary feedback on a partial draft of the public hearing document .

## Meeting summary

Sector variability analysis provided by Dr. Paul Rago
The FMAT received a draft white paper and presentation from Dr. Rago summarizing an analysis of the potential risk of exceeding the catch target (e.g., ABC or OFL) under different commercial/recreational allocations given the inherent variability of the catch data for each sector. This included a theoretical example of a fishery with two sectors, one sector having higher variability in the catch component data than the other. It also included examples for each of the three species using the actual coefficients of variation (CV) for commercial and recreational landings and dead discards in recent years using the same data included in the stock assessments. This analysis evaluated the probability of exceeding the catch target by different amounts under a range of different proportions of total dead catch coming from the commercial versus recreational sectors.

FMAT members discussed that this analysis does not address the efficacy of management in constraining landings and dead discards in either sector. The analysis assumes that each catch component matches its allocation exactly, and only evaluates the effects of the uncertainty associated with the inherent variability of the harvest and discard data for each sector. It also does not assess whether the estimates are biased or not. It will be important to clearly communicate the limited scope of this analysis to the Council, Board, and public. One FMAT member said his impression of Council and public perception is that the estimates are incorrect or there is a large bias, and this analysis does not address those concerns. He also noted that it would be hard to quantify this perceived bias and it would require a lot of assumptions.

The FMAT discussed that the white paper provides a theoretical example with more extreme variability in order to illustrate the extremes of possible impacts, however these CVs are much higher than the actual CVs for these three species. One FMAT member noted that the results of the analysis with the actual CVs will be helpful for the Council and Board to see, because it shows that for both sectors, the catch components are fairly well estimated. However, the FMAT and Dr. Rago also noted that for black sea bass, commercial discards had a higher CV than recreational harvest or discards. If the precision estimates for each of the three species are taken at face value, 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, especially changes within the range currently under consideration, may not have notably different impacts on the risk of exceeding the ABC. One FMAT member said the issue is more that people do not believe the recreational estimates, not that they are not precise. There may be a bias that is not captured, but that is hard to quantify and whether any exists is unknown at this time.

Multiple FMAT members felt that the species-specific analysis would be helpful to include in the environmental assessment for this action and some of the broad conclusions could be included in the Public Hearing Document (PHD). Multiple FMAT members discussed concerns over including the hypothetical more extreme example in amendment documents because it does not necessarily reflect the fisheries and it might be confusing for the public and decision makers trying to understand the impacts of the alternatives. Dr. Rago noted that the theoretical example is more of a teaching tool to help explain how the exercise worked and agreed that it is probably not worth including in a PHD because readers may miss the important sections or get stuck on something that is hypothetical. He added that this analysis diffuses a potential topic that might otherwise take center stage because it suggests that the variability of the estimates is not of major concern; rather, separate issues such as the believability of the estimates and controllability of the fisheries are of greater concern for some managers and stakeholders.

The FMAT agreed to move forward working with Dr. Rago to draft a document that focuses on the species-specific examples of the analysis using less technical language. This document would be included in the December briefing materials for the Council and Board to decide if they want some or part of it included in the PHD.

## Draft Public Hearing Document

The FMAT reviewed the draft PHD, provided general feedback, and discussed future deadlines for the document. Staff highlighted planned socioeconomic analyses, recent rewrites of the sector transfer section, and the draft explanation of catch- and landings-based allocations. The FMAT did not discuss the draft in detail but focused on certain sections for specific feedback.

FMAT members reiterated concerns about data availability and timing of sector transfers, noting that while they are not impossible to implement, they could turn into an annual allocation argument and may put the sector giving up quota in jeopardy of an overage. One FMAT member said that although she has concerns about the feasibility of transfers between the sectors, it would be useful to solicit public comments on this topic. It will be important to outline the caveats associated with these alternatives in the PHD.

One FMAT member recommended that the price and landings figures included in the PHD be produced at a coastwide level since this action is not expected to have notable geographic differences in impacts.

The FMAT also discussed the catch versus landings-based allocation explanation sections in the document. One FMAT member liked the flow charts and said that it is good to illustrate that the steps are the same, they just occur in a different order between the two types of allocation. There was one suggestion to consider including simplified numeric examples with the flowcharts. Staff noted they were working with a few stakeholders to get feedback on the descriptions of this issue that are intended for the PHD. One member of the public asked several clarifying questions and setup a time to discuss them in detail in a separate meeting with staff.

# Potential Effects of Alternative Allocation of Catch to Recreational and Commercial Sectors on the Probability of Overfishing 

# White Paper for MAFMC Summer Flounder, Scup, Black Sea Bass Commercial/Recreational Allocation Amendment FMAT 

Analyses by Dr. Paul Rago<br>Document developed by Paul Rago and Council and Commission Staff

November 2020

## Summary

The Mid-Atlantic Fishery Management Council (Council) and the Atlantic States Marine Fisheries Commission (ASMFC) are in the process of considering whether and how to revise the allocations of total allowable catch or landings between the commercial and recreational sectors for summer flounder, scup, and black sea bass. This document examines the question of how the potential allocation changes might impact variance in the estimates of total catch and how this might impact the likelihood of exceeding the acceptable biological catch (ABC) level for each species. This approach could help inform choices among alternatives but would not be sufficient as the sole basis of selecting a preferred alternative.

The commercial and recreational sectors for summer flounder, scup, and black sea bass have varying degrees of precision in the estimates of total landings and dead discards (see Table 1 below). Catch and harvest limits for each sector are allocated without regard to precision of the estimates. At higher levels of variability (i.e., lower precision) the likelihood of an estimate exceeding a target catch level (e.g., the ABC ) due to this variability in the data will increase. Similarly, it also true that at higher levels of variability, there is a higher likelihood of catch falling below the target catch level (underachieving the ABC ). However, the Council and ASMFC have raised concerns that changes in the allocation may result in an increased probability of overfishing, and as preventing overfishing is a primary goal of management, that is what is evaluated here.

The evaluation below describes the overall probability of exceeding a target catch level as a function of the component allocations and the precision of the estimates. It is important to note that this analysis assumes that each catch component exactly meets its specified allocation, meaning that this analysis considers only impacts related to variances in the catch estimates for the commercial and recreational sectors and does not consider factors such as the efficacy of the management program in constraining catch in either sector.

This analysis considers the implications of different proportions of total dead catch (i.e., landings and dead discards) from the two sectors. These proportions are only the same as the commercial/recreational allocations if the allocations are catch-based and catch in both sectors exactly matches the allocations. While it is theoretically possible to do this analysis for landings-based allocations, this would require several assumptions about how discards should be allocated to each sector, and landings-based allocations were not evaluated for this exercise.

As described below, the results of this exercise demonstrate that if the precision estimates for each of the three species are taken at face value, 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, especially changes within the range currently under consideration, may not have notably different impacts on the risk of exceeding the ABC.

## Background

Sustainable fisheries management relies on a fundamental principle of preventing overfishing by preventing catch from exceeding the Overfishing Limit (OFL), a catch level derived from stock assessments. To reduce the probability of overfishing, annual catch limits for each species are set to a level known as the Acceptable Biological Catch (ABC) that is below the OFL by some appropriate buffer. For Council managed stocks, this level is set by the Scientific and Statistical Committee (SSC) by accounting for both the estimated level of uncertainty in the OFL and a desired or acceptable level of risk by the Council. Given that the results of any single model are likely to underestimate the variation in the OFL, the SSC assigns a level of uncertainty (i.e., a CV of $60 \%, 100 \%$, or $150 \%$ ) to the OFL using a set of criteria that examine the model, the underlying data, the history of the fishery, and other factors.

Managers monitor fishery catch relative to the ABC by assembling catch estimates in as timely a manner as possible. Commercial landings are most readily available, and this data set is an assumed census given the commercial reporting and monitoring systems in place. Commercial discards, recreational landings, and recreational discards are all estimated quantities derived from sampling programs. Recreational landings and discards are estimated in two-month waves, with about a month lag after the wave for final estimation. Commercial discards can be approximated during the season, but the final estimates of total discards and their variances, are generally not available until after the fishing season is complete. Thus the realized catch that actually occurs given this ABC guidance is uncertain because of uncontrollable factors and expected sampling variation. For example, commercial discards may vary due to influence of strong but not fully recruited year classes. Recreational landings and discards are the products of a complex statistical survey that relies on estimation of total fishing effort and random sampling of angler trips at fishing locations.

Allocation is not a matter of science because it involves a complex set of social, historical and economic issues and is ultimately a policy decision. The SSC sets the ABC without consideration of the proportional allocation of catches to sectors. Moreover, the catches are monitored without consideration of the uncertainty of estimation. Consider two example scenarios with equal estimated catch. A catch estimate with a $10 \%$ CV is used in management in the same manner as a less precise estimate with a $100 \%$ CV, despite the fact that the confidence interval of the latter ensures a higher probability that the true catch may be substantially higher (or lower) than measured. The following sections outline some of the implications of the underlying variability in catches among fishery types and describe a general procedure along with examples using species-specific CVs for summer flounder, scup and black sea bass.

## Species Examples

The following examples use the methodology described in Appendix A to assess the probability of exceeding a catch target (e.g., ABC) by varying amounts under different proportions of total catch from each sector. The varying proportions of catch from each sector are expressed as "fraction of catch to the commercial fishery" and the ranges used represent the allocation percentages considered in the amendment. The fraction of catch from the recreational fishery is equal to 1 minus the fraction from the
commercial fishery. As previously stated, these fractions are only the same as the commercial/recreational allocations if catch in both sectors exactly meets the allocations under a catch-based allocation approach. The examples use CVs associated with the commercial and recreational landings and dead discards in each sector over the past 10 years (Table 1).

Table 1: Summary of average commercial and recreational landings and dead discards by species with associated CVs. Data provided by NEFSC and MRIP (MRIP for black sea bass recreational only).

|  |  | Commercial (mt) |  | Recreational (mt) |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Species | Quantity | Landings | Discards | Landings | Discards |  |
| Summer flounder, 2010-2019 | $m t$ | 4,813.3 | 1,151.4 | 5,766.6 | 1,873.6 | 13,604.9 |
|  | CV | 0.01 | 0.127 | 0.089 | 0.078 |  |
| Scup, 2010-2019 | mt | 6,797.4 | 2,250.9 | 5,298.7 | 671.3 | 15,018.3 |
|  | CV | 0.01 | 0.104 | 0.134 | 0.127 |  |
| Black Sea Bass, 2010-2019a | mt | 1,156 | $464{ }^{\text {a }}$ | 3,847.3 | 974.4 | 6,441.7 |
|  | CV | 0.01 | 0.31 ${ }^{\text {a }}$ | $0.126^{\text {b }}$ | $0.10{ }^{\text {b }}$ |  |

${ }^{\text {a }}$ Commercial black sea bass dead discards are for 2010-2018 as final 2019 dead discard estimates are not currently available.
${ }^{\mathrm{b}}$ For black sea bass, recreational harvest and dead discard CVs are based on numbers of fish which are closely correlated with the CVs for weight estimates.

## Summer Flounder

For summer flounder, a range of $40 \%$ to $60 \%$ of the catch allocated to the commercial fishery is considered based on the summer flounder alternatives in the amendment. Assuming a normal distribution of each catch component, and assuming that the catch for each component matches its allocation, the theoretical probability of exactly meeting the ABC , as opposed to exceeding (or underachieving) the ABC by any amount, due to variance in the data is $50 \%$. The probability of exceeding the ABC by a specified percentage gets lower as that specified percentage increases. For example, it is much less likely that the ABC will be exceeded by $10 \%$ based on variance in the catch component data than it is that the ABC will be exceeded by $5 \%$.

The probability of a $5 \%$ ABC overage (or underage) varies based on the allocation percent to the commercial fishery, from about $12 \%$ under a $40 \%$ allocation to the commercial fishery to $6 \%$ under a $60 \%$ allocation to the commercial fishery. The probability of exceeding the ABC by $10 \%$ or more given the variance in the underlying data is $1 \%$ or less over the range of allocations considered for summer flounder.

Table 2: Probability of exceeding the summer flounder ABC by varying amounts under varying levels of total catch coming from the commercial fishery based on the methodology described in Appendix A and the CVs shown in Table 1. The remainder of the total catch comes from the recreational fishery. The fraction of total catch from the commercial fishery is only the same as the commercial allocation if commercial catch exactly meets the commercial allocation under a catch-based allocation approach. The range of fractions of total catch from the commercial fishery is based on the range of allocation percentages currently under consideration through the Commercial/Recreational Allocation Amendment.

| Fraction <br> of total <br> catch <br> from com. <br> fishery | 0\% <br> ABC <br> overage | 5\% <br> ABC <br> overage | 10\% ABC <br> overage | $\mathbf{1 5 \%}$ ABC <br> overage | 20\% ABC <br> overage | 25\% ABC <br> overage | 30\% ABC <br> overage |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $50.00 \%$ | $12.33 \%$ | $1.03 \%$ | $0.03 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $41 \%$ | $50.00 \%$ | $12.00 \%$ | $0.94 \%$ | $0.02 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $42 \%$ | $50.00 \%$ | $11.66 \%$ | $0.85 \%$ | $0.02 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $43 \%$ | $50.00 \%$ | $11.32 \%$ | $0.78 \%$ | $0.01 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $44 \%$ | $50.00 \%$ | $10.98 \%$ | $0.70 \%$ | $0.01 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $45 \%$ | $50.00 \%$ | $10.64 \%$ | $0.64 \%$ | $0.01 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $46 \%$ | $50.00 \%$ | $10.30 \%$ | $0.57 \%$ | $0.01 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $47 \%$ | $50.00 \%$ | $9.97 \%$ | $0.51 \%$ | $0.01 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $48 \%$ | $50.00 \%$ | $9.63 \%$ | $0.46 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $49 \%$ | $50.00 \%$ | $9.30 \%$ | $0.41 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $50 \%$ | $50.00 \%$ | $8.96 \%$ | $0.36 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $51 \%$ | $50.00 \%$ | $8.63 \%$ | $0.32 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $52 \%$ | $50.00 \%$ | $8.31 \%$ | $0.28 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $53 \%$ | $50.00 \%$ | $7.99 \%$ | $0.25 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $54 \%$ | $50.00 \%$ | $7.67 \%$ | $0.21 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $55 \%$ | $50.00 \%$ | $7.36 \%$ | $0.19 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $56 \%$ | $50.00 \%$ | $7.05 \%$ | $0.16 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $57 \%$ | $50.00 \%$ | $6.74 \%$ | $0.14 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $58 \%$ | $50.00 \%$ | $6.45 \%$ | $0.12 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $59 \%$ | $50.00 \%$ | $6.16 \%$ | $0.10 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $60 \%$ | $50.00 \%$ | $5.88 \%$ | $0.09 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |

## Scup

For scup, a range of $50 \%$ to $80 \%$ of the catch allocated to the commercial fishery is considered based on the scup alternatives in the amendment. Assuming a normal distribution of each catch component, and assuming that the catch for each component matches its allocation, the theoretical probability of exactly meeting the ABC , as opposed to exceeding (or underachieving) the ABC by any amount, due to variance in the data is $50 \%$. The probability of exceeding the ABC by a specified percentage gets lower as that specified percentage increases. For example, it is much less likely that the ABC will be exceeded by $10 \%$ based on variance in the catch component data than it is that the ABC will be exceeded by $5 \%$.

The probability of a $5 \%$ ABC overage (or underage) varies based on the allocation percent to the commercial fishery, from about $21 \%$ under a $50 \%$ allocation to the commercial fishery to $6 \%$ under an $80 \%$ allocation to the commercial fishery. The probability of exceeding the ABC by $10 \%$ or more given the variance in the underlying data is $5 \%$ or less over the range of allocations considered for scup.

Table 3: Probability of exceeding the scup ABC by varying amounts under varying levels of total catch coming from the commercial fishery based on the methodology described in Appendix A and the CVs shown in Table 1. The remainder of the total catch comes from the recreational fishery. The fraction of total catch from the commercial fishery is only the same as the commercial allocation if commercial catch exactly meets the commercial allocation under a catch-based allocation approach. The range of fractions of total catch from the commercial fishery is based on the range of allocation percentages currently under consideration through the Commercial/Recreational Allocation Amendment.

| Fraction <br> of total <br> catch to <br> com. <br> fishery | 0\% ABC <br> overage | 5\% ABC <br> overage | $\mathbf{1 0 \%}$ ABC <br> overage | $\mathbf{1 5 \%}$ ABC <br> overage | 20\% ABC <br> overage | 25\% ABC <br> overage | $\mathbf{3 0 \%}$ ABC <br> overage |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $50.00 \%$ | $20.77 \%$ | $5.17 \%$ | $0.73 \%$ | $0.06 \%$ | $0.00 \%$ | $0.00 \%$ |
| $52 \%$ | $50.00 \%$ | $20.13 \%$ | $4.70 \%$ | $0.60 \%$ | $0.04 \%$ | $0.00 \%$ | $0.00 \%$ |
| $53 \%$ | $50.00 \%$ | $19.47 \%$ | $4.26 \%$ | $0.49 \%$ | $0.03 \%$ | $0.00 \%$ | $0.00 \%$ |
| $55 \%$ | $50.00 \%$ | $18.79 \%$ | $3.82 \%$ | $0.39 \%$ | $0.02 \%$ | $0.00 \%$ | $0.00 \%$ |
| $56 \%$ | $50.00 \%$ | $18.09 \%$ | $3.41 \%$ | $0.31 \%$ | $0.01 \%$ | $0.00 \%$ | $0.00 \%$ |
| $58 \%$ | $50.00 \%$ | $17.37 \%$ | $3.01 \%$ | $0.24 \%$ | $0.01 \%$ | $0.00 \%$ | $0.00 \%$ |
| $59 \%$ | $50.00 \%$ | $16.64 \%$ | $2.64 \%$ | $0.18 \%$ | $0.01 \%$ | $0.00 \%$ | $0.00 \%$ |
| $61 \%$ | $50.00 \%$ | $15.89 \%$ | $2.28 \%$ | $0.14 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $62 \%$ | $50.00 \%$ | $15.12 \%$ | $1.96 \%$ | $0.10 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $64 \%$ | $50.00 \%$ | $14.34 \%$ | $1.66 \%$ | $0.07 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $65 \%$ | $50.00 \%$ | $13.56 \%$ | $1.39 \%$ | $0.05 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $67 \%$ | $50.00 \%$ | $12.76 \%$ | $1.14 \%$ | $0.03 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $68 \%$ | $50.00 \%$ | $11.96 \%$ | $0.93 \%$ | $0.02 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $70 \%$ | $50.00 \%$ | $11.16 \%$ | $0.74 \%$ | $0.01 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $71 \%$ | $50.00 \%$ | $10.37 \%$ | $0.58 \%$ | $0.01 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $73 \%$ | $50.00 \%$ | $9.58 \%$ | $0.45 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $74 \%$ | $50.00 \%$ | $8.82 \%$ | $0.34 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $76 \%$ | $50.00 \%$ | $8.07 \%$ | $0.26 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $77 \%$ | $50.00 \%$ | $7.36 \%$ | $0.19 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $79 \%$ | $50.00 \%$ | $6.68 \%$ | $0.13 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $80 \%$ | $50.00 \%$ | $6.04 \%$ | $0.10 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |

## Black Sea Bass

For black sea bass, a range of $20 \%$ to $50 \%$ of the catch allocated to the commercial fishery is considered based on the black sea bass alternatives in the amendment. Assuming a normal distribution of each catch component, and assuming that the catch for each component matches its allocation, the theoretical probability of exactly meeting the ABC , as opposed to exceeding (or underachieving) the ABC by any amount, due to variance in the data is $50 \%$. The probability of exceeding the ABC by a specified percentage gets lower as that specified percentage increases. For example, it is much less likely that the ABC will be exceeded by $10 \%$ based on variance in the catch component data than it is that the ABC will be exceeded by $5 \%$.

For example, the probability of a $5 \%$ ABC overage (or underage) varies based on the allocation percent to the commercial fishery, from about $24 \%$ under a $20 \%$ allocation to the commercial fishery to $1 \%$ under a $50 \%$ allocation to the commercial fishery. The probability of exceeding the ABC by $10 \%$ or more given the variance in the underlying data is $8 \%$ or less over the range of allocations considered for black sea bass.

Table 4: Probability of exceeding the black sea bass ABC by varying amounts under varying levels of total catch coming from the commercial fishery based on the methodology described in Appendix A and the CVs shown in Table 1. The remainder of the total catch comes from the recreational fishery. The fraction of total catch from the commercial fishery is only the same as the commercial allocation if commercial catch exactly meets the commercial allocation under a catch-based allocation approach. The range of fractions of total catch from the commercial fishery is based on the range of allocation percentages currently under consideration through the Commercial/Recreational Allocation Amendment.

| Fraction <br> of total <br> catch to <br> com. <br> fishery | Probability of Exceeding Black Sea Bass ABC by X\% <br>  <br> ABC <br> overage | 5\% ABC <br> overage | $\mathbf{1 0 \%}$ ABC <br> overage | $\mathbf{1 5 \%}$ ABC <br> overage | 20\% ABC <br> overage | 25\% ABC <br> overage | $\mathbf{3 0 \%}$ ABC <br> overage |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $50.00 \%$ | $24.02 \%$ | $7.91 \%$ | $1.71 \%$ | $0.24 \%$ | $0.02 \%$ | $0.00 \%$ |
| $22 \%$ | $50.00 \%$ | $22.83 \%$ | $6.82 \%$ | $1.28 \%$ | $0.15 \%$ | $0.01 \%$ | $0.00 \%$ |
| $23 \%$ | $50.00 \%$ | $21.55 \%$ | $5.76 \%$ | $0.91 \%$ | $0.08 \%$ | $0.00 \%$ | $0.00 \%$ |
| $25 \%$ | $50.00 \%$ | $20.17 \%$ | $4.73 \%$ | $0.61 \%$ | $0.04 \%$ | $0.00 \%$ | $0.00 \%$ |
| $26 \%$ | $50.00 \%$ | $18.69 \%$ | $3.76 \%$ | $0.38 \%$ | $0.02 \%$ | $0.00 \%$ | $0.00 \%$ |
| $28 \%$ | $50.00 \%$ | $17.11 \%$ | $2.88 \%$ | $0.22 \%$ | $0.01 \%$ | $0.00 \%$ | $0.00 \%$ |
| $29 \%$ | $50.00 \%$ | $15.44 \%$ | $2.09 \%$ | $0.11 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $31 \%$ | $50.00 \%$ | $13.67 \%$ | $1.43 \%$ | $0.05 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $32 \%$ | $50.00 \%$ | $11.84 \%$ | $0.90 \%$ | $0.02 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $34 \%$ | $50.00 \%$ | $9.98 \%$ | $0.51 \%$ | $0.01 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $35 \%$ | $50.00 \%$ | $8.13 \%$ | $0.26 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $37 \%$ | $50.00 \%$ | $6.36 \%$ | $0.11 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $38 \%$ | $50.00 \%$ | $4.76 \%$ | $0.04 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $40 \%$ | $50.00 \%$ | $3.41 \%$ | $0.01 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $41 \%$ | $50.00 \%$ | $2.37 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $43 \%$ | $50.00 \%$ | $1.66 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $44 \%$ | $50.00 \%$ | $1.24 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $46 \%$ | $50.00 \%$ | $1.06 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $47 \%$ | $50.00 \%$ | $1.10 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $49 \%$ | $50.00 \%$ | $1.20 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $50 \%$ | $50.00 \%$ | $1.29 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |

## Appendix A: Methods

The balance of catch components has important implications for the variance of the overall catch since the components have different degrees of variation. Assuming that there are no additional buffers for management uncertainty or other reasons, total catch for these species is written as:
Total dead catch = Comm landings + Comm dead discards + Rec landings + Rec dead discards

Or

$$
\begin{equation*}
\mathrm{C}_{\mathrm{T}}=\mathrm{L}_{\mathrm{C}}+\mathrm{D}_{\mathrm{C}}+\mathrm{L}_{\mathrm{R}}+\mathrm{D}_{\mathrm{R}} . \tag{1}
\end{equation*}
$$

If each of the components on the right-hand side are considered to be independent random variables, then the expected value ( E ) of $\mathrm{C}_{\mathrm{T}}$ is simply equal to the sum of the expected values (2). Similarly, the variance $(\mathrm{V})$ of $\mathrm{C}_{\mathrm{T}}$ is the sum of the variances of the right-hand side variables (3).

Thus

$$
\begin{equation*}
\mathrm{E}\left(\mathrm{C}_{\mathrm{T}}\right)=\mathrm{E}\left(\mathrm{~L}_{\mathrm{C}}\right)+\mathrm{E}\left(\mathrm{D}_{\mathrm{C}}\right)+\mathrm{E}\left(\mathrm{~L}_{\mathrm{R}}\right)+\mathrm{E}\left(\mathrm{D}_{\mathrm{R}}\right) \tag{2}
\end{equation*}
$$

and

$$
\begin{equation*}
V\left(C_{T}\right)=V\left(L_{c}\right)+V\left(D_{C}\right)+V\left(L_{R}\right)+V\left(D_{R}\right) . \tag{3}
\end{equation*}
$$

The probability that $\mathrm{E}\left(\mathrm{C}_{т}\right)$ exceeds some target value $\mathrm{C}^{*}$ can now be computed by estimating the cumulative distribution function of a normally distributed variable $\mathrm{Y} \sim \mathrm{N}\left(\mathrm{m}, \mathrm{s}^{2}\right)=1-\mathrm{Q}\left(\mathrm{C}^{*} \mid \mathrm{E}\left(\mathrm{C}_{\mathrm{T}}\right), \mathrm{V}\left(\mathrm{C}_{\mathrm{T}}\right.\right.$ )), where $Q($.$) is the cumulative normal distribution evaluated at C^{*}$ with parameters $m=E\left(C_{T}\right)$ and $s^{2}$ $=\mathrm{V}\left(\mathrm{C}_{\mathrm{T}}\right)$ set equal to the sample estimates. Alternatively, one could assume that the components of total catch have a skewed distribution, such as a lognormal distribution.

## Effect of an Alternative Allocation

The current allocation scheme can be written as

$$
\begin{equation*}
\mathrm{C}_{\mathrm{T}}=\mathrm{p} \mathrm{C}_{\mathrm{T}}+(1-\mathrm{p}) \mathrm{C}_{\mathrm{T}} \tag{4}
\end{equation*}
$$

where

$$
\begin{align*}
& \mathrm{p}=\left(\mathrm{L}_{\mathrm{C}}+\mathrm{D}_{\mathrm{C}}\right) / \mathrm{C}_{\mathrm{T}}  \tag{5}\\
& (1-\mathrm{p})=\left(\mathrm{L}_{\mathrm{R}}+\mathrm{D}_{\mathrm{R}}\right) / \mathrm{C}_{\mathrm{T}} \tag{6}
\end{align*}
$$

The effect of a new allocation scheme, say p' is simply obtained by multiplying the original values by p’/p for $L_{C}+D_{C}$ and (1-p’)/(1-p) for $\left(L_{R}+D_{R}\right)$.

Thus the revised values are defined as follows.

$$
\begin{gather*}
L^{\prime}{ }_{C}=\left(p^{\prime} / p\right) L_{C}  \tag{7}\\
D^{\prime}{ }_{C}=\left(p^{\prime} / p\right) D_{C}  \tag{8}\\
L^{\prime}{ }_{R}=\left(\left(1-p^{\prime}\right) /(1-p)\right) L_{R}  \tag{9}\\
D^{\prime}{ }_{R}=\left(\left(1-p^{\prime}\right) /(1-p)\right) D_{R} . \tag{10}
\end{gather*}
$$

Using standard methods of pluggation, it can be shown that

$$
\begin{equation*}
\mathrm{C}_{\mathrm{T}}=\mathrm{L}{ }_{\mathrm{C}}{ }^{+}+\mathrm{D}^{\prime}{ }_{\mathrm{C}}+\mathrm{L}^{\prime}{ }^{2}+\mathrm{D}^{\prime}{ }_{\mathrm{R}} . \tag{11}
\end{equation*}
$$

by substituting Equation 5 into Eq 7 and 8 and Equation 6 into Eq 9 and 10 . Since $0<\mathrm{p}$ ’ $<1$ then Equation 11 becomes

$$
\mathrm{C}_{\mathrm{T}}=\mathrm{p}^{\prime} \mathrm{C}_{\mathrm{T}}+\left(1-\mathrm{p}^{\prime}\right) \mathrm{C}_{\mathrm{T}}(12)
$$

In general, the coefficients of variation (CVs) for landings and discards are typically constant, which implies the variances increase with the mean. More specifically, $V(X)^{0.5} / E(X)=g$. Or $V(X)=(g E(X))^{2}$. Assuming that the CV is invariant with scale, then the variance estimates for the revised allocation scheme can be expressed as

$$
\begin{equation*}
\left.V\left(C_{T} \mid p^{\prime}\right)=\left(g_{1} L^{\prime}\right)^{2}\right)^{2}+\left(g_{2} D^{\prime} \mathrm{C}\right)^{2}+\left(\left(g_{3} L^{\prime}\right)^{2}+\left(g_{4} D^{\prime}{ }_{R}\right)^{2}\right. \tag{13}
\end{equation*}
$$

Where the $g_{i}$ refer to the original CV for each component of catch. Thus the relationship between the mean and variance of the catch component is maintained irrespective of the revised scale induced by the choice of the allocation parameter p'.

Now of course the real estimate of interest is the probability that the OFL will be exceeded given an original $\mathrm{ABC}=\mathrm{C}_{\mathrm{T}}$ under the current allocation scheme p versus the comparable probability induced by the choice of an alternative allocation scheme p'. Generalizing from the above, the probability that that $\mathrm{C}_{\mathrm{T}}>$ OFL given p can be written as

$$
\begin{equation*}
\operatorname{Prob}\left(\mathrm{C}_{\mathrm{T}}>\mathrm{OFL} \mid \mathrm{p}\right)=1-\mathrm{Q}\left(\mathrm{OFL} \mid \mathrm{p}, \mathrm{E}\left(\mathrm{C}_{\mathrm{T}}\right), \mathrm{V}\left(\mathrm{C}_{\mathrm{T}} \mid \mathrm{p}\right)\right) \tag{14}
\end{equation*}
$$

The comparable value for the alternative allocation scheme p' is

$$
\begin{equation*}
\operatorname{Prob}\left(\mathrm{C}_{\mathrm{T}}>\mathrm{OFL} \mid \mathrm{p}^{\prime}\right)=1-\mathrm{Q}\left(\mathrm{OFL} \mid \mathrm{p}^{\prime}, \mathrm{E}\left(\mathrm{C}_{\mathrm{T}}\right), \mathrm{V}\left(\mathrm{C}_{\mathrm{T}} \mid \mathrm{p}^{\prime}\right)\right) \tag{15}
\end{equation*}
$$

Note that the expected total $\mathrm{E}\left(\mathrm{C}_{\mathrm{T}}\right)$ is the same in both Equation 14 and 15 ; the choice of p' does not alter the total expected catch, only the magnitude of the variances.

The concepts described in Equations 1 to 15 are very simple but the notation gets a bit complicated. In a nutshell, the choice of allocation does not alter the overall total catch, but it does alter the estimated variance of the total. If the alternative allocation results in an overall increase in the variance of the total (i.e., Eq. 13) then the probability of $\mathrm{C}_{\mathrm{T}}$ exceeding the OFL will increase. Note also that the OFL can be expressed as any alternative scalar of the ABC. For example, the FMAT might wish to consider allocations that have a probability of exceeding $120 \%$ of the ABC to be less than $5 \%$. The inverse problem could also be addressed such that a p' is chosen such that the probability of exceeding the OFL is equal to or less than the Council's risk policy given the state of the stock.

# Action Plan for Commercial/Recreational Allocation Amendment to the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan Draft as of 10/19/2020 <br> http://www.mafmc.org/actions/sfsbsb-allocation-amendment 

Amendment Goal: The purpose of this amendment is to review and consider revisions to the commercial/recreational sector allocations for the summer flounder, scup, and black sea bass fisheries. This action aims to address the allocation-related impacts of the revised data on catch and landings for the recreational and commercial sectors. This is a joint amendment of the Mid-Atlantic Fishery Management Council and Atlantic States Marine Fisheries Commission.

Type of NEPA Analysis Expected: Environmental Assessment (EA)
Additional Expertise Sought: The Council's Fishery Management Action Team (FMAT) for this action will be composed of Council and Commission staff and management partners from the Greater Atlantic Regional Fisheries Office (GARFO) and Northeast Fisheries Science Center (NEFSC), with input from other organizations as appropriate.

| Agency | FMAT Role | Person(s) |
| :---: | :---: | :---: |
| MAFMC | Council staff (summer flounder) | Kiley Dancy |
| MAFMC | Council staff (scup) | Karson Coutré |
| MAFMC | Council staff (black sea bass) | Julia Beaty |
| ASMFC | Commission staff (summer flounder and scup) | Dustin Colson Leaning |
| ASMFC | Commission staff (black sea bass) | Caitlin Starks/Savannah Lewis |
| NMFS GARFO | Sustainable fisheries | Emily Keiley |
| NMFS GARFO | NEPA | Marianne Ferguson |
| NMFS NEFSC | Socioeconomics | Greg Ardini |
| NMFS NEFSC | Stock assessment/population dynamics (consult as needed) | Gary Shepherd |
| NMFS NEFSC | Stock assessment/population dynamics (consult as needed) | Mark Terceiro |
| NMFS GARFO | General counsel (consult as needed) | John Almeida |

Types of Measures Expected to be Considered: The Council and Board will review and consider revisions to the commercial/recreational sector allocations for summer flounder, scup, and black sea bass. The types of alternatives currently under consideration include:

- No action/status quo;
- Updating the current allocation percentages using the existing base years but with revised MRIP data;
- Using alternative base years to derive new allocation percentages;
- Using different allocation approaches which do not rely on base years;
- Considering whether each allocation should be catch based or landings based;
- Considering whether a transfer of allocation from one sector to another should be allowed through specifications;
- Considering whether future allocation changes or allocation transfer provisions could be implemented through a framework/addendum rather than an amendment;
- Other approaches to be determined.


## Applicable laws/issues:

| Magnuson-Stevens Act | Yes |
| :---: | :---: |
| National Environmental Policy Act | Yes |
| Administrative Procedures Act | Yes |
| Regulatory Flexibility Act | Yes |
| Paperwork Reduction Act | Possibly; depends on data collection needs |
| Coastal Zone Management Act | Possibly; depends on effects of the action on the resources of the <br> coastal states in the management unit |
| Endangered Species Act | Possibly; level of consultation, if necessary, depends on the |
| actions taken |  |

## Expected Amendment Timeline (as of July 2020; assuming EA; subject to change):

| October 2019 | Amendment initiated |
| :--- | :--- |
| Early 2020 | FMAT formed |
| December 2019 | Council and Board approve a scoping and public information document for <br> public comment |
| February-March 2020 | Scoping hearings and comment period |
| April 2020 | APs review scoping comments and provide input to Council and Board |
| April 2020 | FMAT reviews scoping comments and provides recommendations to Council <br> and Board on scope of action and possible approaches |


| May 2020 | Council and Board review scoping comments and FMAT and AP <br> recommendations; define scope of action |
| :--- | :--- |
| May 2020 | FMAT begins to develop draft alternatives |
| June 2020 | Council and Board meeting to refine draft alternatives <br> June-July 2020 <br> Continued FMAT development and analysis of alternatives; Advisory Panel <br> input on draft alternatives |
| August 2020 | Council and Board approve final range of alternatives for inclusion in a <br> public hearing document/Commission draft amendment document |
| Fall 2020 | Development of public hearing document/Commission draft amendment <br> document, |
| December 2020 | Council and Board approve public hearing document; Board approves draft <br> amendment document for public comment; hearing schedule developed |
| Early 2021 | Public hearings |
| Spring 2021 | Advisory Panel meeting to provide input on preferred alternatives |
| Spring 2021 | Final action |
| Summer 2021 | EA finalized and submitted; NMFS and other agencies review; final edits <br> completed |
| Summer/Fall 2021 | Rulemaking and comment periods (4-7 months from after EA finalized) |
| January 1, 2022 | Expected effective date |

## MEMORANDUM

Date: $\quad$ December 4, 2020
To: Chris Moore, Executive Director
From: Julia Beaty, staff
Subject: Black Sea Bass Commercial Allocation Amendment and Draft Addendum XXXIII

During their joint meeting on December 16, 2020 the Mid-Atlantic Fishery Management Council (Council) and the Atlantic States Marine Fisheries Commission’s Summer Flounder, Scup, and Black Sea Bass Management Board (Board) will meet to take final action on the Black Sea Bass Commercial State Allocation Amendment/Draft Addendum XXXIII after considering public comments, Advisory Panel input, and the Council staff recommendation.

The following documents are included behind this tab for Council and Board consideration:

1) Draft Addendum XXXIII
2) Staff memo dated December 1, 2020 on recommendations for final action
3) Public comment summary
4) Summary of November 19, 2020 Advisory Panel meeting
5) Memo from Council staff on potential impacts of management alternatives
6) Additional comments from Advisory Panel members

## Atlantic States Marine Fisheries Commission

# DRAFT ADDENDUM XXXIII TO THE SUMMER FLOUNDER, SCUP, AND BLACK SEA BASS FISHERY MANAGEMENT PLAN FOR PUBLIC COMMENT 

Black Sea Bass Commercial Management


August 2020

Sustainable and Cooperative Management of Atlantic Coastal Fisheries

## Draft Addendum for Public Comment

## Public Comment Process and Proposed Timeline

In October 2019, the Summer Flounder, Scup, and Black Sea Bass Management Board (Board) initiated development of Draft Addendum XXXIII to the Interstate Fishery Management Plan (FMP) for Summer Flounder, Scup, and Black Sea Bass. The Draft Addendum considers modifications to the black sea bass commercial state allocations. In December 2019, the MidAtlantic Fishery Management Council (Council) initiated a complementary amendment as a parallel action to the Board's Draft Addendum. The amendment will consider including the state specific commercial allocations in the Council FMP. This document presents background on black sea bass commercial management and a range of management options for public consideration and comment. The addendum process and expected timeline are below.


The public is encouraged to submit comments regarding this document at any time during the public comment period. The final date comments will be accepted is November 13, 2020 at 11:59 p.m. Comments may be submitted at state public hearings or by mail, email, or fax. If you have any questions or would like to submit comment, please use the contact information below. All comments will be made available to both the Commission and Council for consideration; duplicate comments do not need to be submitted to both bodies.

Mail: Caitlin Starks, FMP Coordinator
Atlantic States Marine Fisheries Commission
1050 North Highland Street, Suite 200 A-N
Arlington, VA 22201

Email: comments@asmfc.org
(Subject: Draft Addendum XXXIII)
Phone: 703.842.0740
FAX: 703.842.0741

## Tips for Providing Public Comment

We value your input, and to be most effective we request that your comment include specific details as to why you support or oppose a particular proposed management option. Specifically, address the following:

- Which proposed options/sub-options do you support, and which options/suboptions do you oppose?
- Why do you support or oppose the option(s)?
- Is there any additional information you think should be considered?


## Draft Addendum for Public Comment

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## Draft Addendum for Public Comment

### 1.0 Introduction

Draft Addendum XXXIII proposes alternative approaches for allocating the coastwide black sea bass commercial quota among the states ${ }^{1}$. On October 9, 2019, the Atlantic States Marine Fisheries Commission's (Commission) Summer Flounder, Scup, and Black Sea Bass Management Board (Board) approved the following motion:

Move to initiate an addendum to consider adjustments to the commercial black sea bass allocations consistent with the goal statement and options developed by the Board.

In December 2019, the Council initiated a complementary amendment as a parallel action to the Board's Draft Addendum, which will consider including the state specific commercial allocations in the Council FMP. These actions have two goals:

- To consider adjusting the current commercial black sea bass allocations using current distribution and abundance of black sea bass as one of several adjustment factors to achieve more balanced access to the resource. These adjustment factors will be identified as the development process moves forward.
- To consider whether the state allocations should continue to be managed only under the Commission's FMP or whether they should be managed under both the Commission and Council FMPs².

The management unit for black sea bass in US waters is the western Atlantic Ocean from Cape Hatteras, North Carolina northward to the US-Canadian border. The black sea bass fisheries are managed cooperatively by the states through the Commission in state waters ( $0-3$ miles), and through the Mid-Atlantic Fishery Management Council (Council) and NOAA Fisheries in federal waters (3-200 miles).

The Council and Commission are both responsible for implementing the annual coastwide commercial quota, but only the Commission is responsible for managing the state by state allocation of the coastwide quota. The current state quota allocations were established in 2003 through Amendment 13 to the Summer Flounder, Scup, and Black Sea Bass FMP, and extended indefinitely through Addendum XIX (2007).

This draft addendum is proposed under the adaptive management procedures of Amendment 12 to the Summer Flounder, Scup, and Black Sea Bass FMP.

[^27]
## Draft Addendum for Public Comment

### 2.0 Overview

### 2.1 Statement of Problem

State allocations of the commercial black sea bass coastwide quota were originally implemented in 2003 as part of Amendment 13, loosely based on historical landings from 19802001. The state shares in Amendment 13 allocated $67 \%$ of the coast-wide commercial quota among the states of New Jersey through North Carolina (North of Cape Hatteras) and 33\% among the states of New York through Maine. These state commercial allocations have been unchanged for 17 years.

Over the last decade, the distribution of the black sea bass stock has changed, abundance and biomass have increased significantly, and there have been corresponding changes in fishing effort and behavior. According to the most recent black sea bass stock assessment, which modeled fish north and south of Hudson Canyon separately, the majority of the stock occurred in the southern region prior to the mid-2000s (NEFSC 2019). Since then the biomass in the northern region has grown considerably. Although the amount of biomass in the southern region has not declined in recent years, the northern region currently accounts for the majority of spawning stock biomass (Figure 1). This shift in black sea biomass distribution has also been supported by peer reviewed scientific research (e.g., Bell et al., 2015).

In some cases, expansion of the black sea bass stock into areas with historically minimal fishing effort has created significant disparities between state allocations and current abundance and resource availability. The most noteworthy example is Connecticut, which has experienced significant increases in black sea bass abundance and fishery availability in Long Island Sound in recent years but is only allocated $1 \%$ of the coastwide commercial quota (this allocation was based loosely on landings from 1980-2001).


Figure 1. Black sea bass spawning stock biomass by region from the 2019 Operational Assessment Update. Open marks represent retro-adjusted values (used to set catch limits). Source: Personal communication with Northeast Fishery Science Center.

## Draft Addendum for Public Comment

### 2.2 Background

The Commission's FMP for black sea bass was approved in October 1996. The Council added black sea bass to their summer flounder FMP in 1996 through Amendment 9. Both FMPs established an annual process of developing commercial quotas, recreational harvest limits, and recreational and commercial management measures, as well as a series of permitting and reporting requirements. Under the original FMP, the annual coastwide commercial quota was divided into four quarters: January 1 through March 31, April 1 through June 30, July 1 through September 30, and October 1 through December 31.

Under the quarterly quota allocation system, the fishery was subjected to lengthy closures and some significant quota overages. Fishery closures occurring as a result of quotas being fully utilized or exceeded resulted in increased discards of legal sized black sea bass in mixed species fisheries for the remainder of the closure period. Significant financial hardship on the part of the fishing industry also resulted from a decrease in market demand caused by a fluctuating supply. To address these issues, the Management Board enacted a series of emergency rules in 2001 establishing initial possession limits, triggers, and adjusted possession limits. While these measures helped reduce the length of fishery closures, the frequent regulatory changes confused fishermen and added significant administrative burden to the states. Addendum VI (2002) provided a mechanism for setting initial possession limits, triggers, and adjusted possession limits during the annual specification setting process without the need for further emergency rules.

The quarterly quota system was replaced with an annual quota system under Amendment 13, approved by the Commission and Council in May 2002. The Amendment implemented a federal coastwide commercial quota, and a state-by-state allocation system for 2003 and 2004 to be managed by the Commission. This system was adopted to reduce fishery closures, achieve more equitable distribution of quota to fishermen, and allow the states to manage their commercial quota for the greatest benefit of the industry in their state.

At the time of final action on Amendment 13, the Council expressed a desire that the state allocations be managed at both the state and federal levels and contained in both the Council and Commission's FMPs. However, the NOAA Fisheries Regional Administrator at the time said a state quota system at the federal level could not be monitored effectively with the then current monitoring methods due to the anticipated low allocations in some states. As a result, the Council approved a federal annual coastwide quota, acknowledging that this would facilitate the use of state allocations through the Commission's FMP. Many of the concerns with monitoring state quotas at the federal level have subsequently been resolved with changes to how commercial landings are reported.

State-specific shares were adopted as follows: Maine and New Hampshire 0.5\%, Connecticut 1\%, Delaware 5\%, New York 7\%, Rhode Island, North Carolina and Maryland 11\%, Massachusetts 13\%, New Jersey and Virginia 20\% (Table 1).

The individual state shares management program was continued in 2005 and 2006 through Addendum XII (2004). Addendum XIX, approved in 2007, extended the state shares of the commercial black sea bass quota indefinitely. No further changes have been made to the black sea bass commercial state shares. Addenda XII and XIX (2004 and 2007, respectively) allowed

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for the transfer of black sea bass commercial quota among states, and Addendum XX (2009) established the process for state to state quota transfers. Under the management program established through these Addenda, states have the responsibility of managing their quota to provide the greatest benefit to their commercial black sea bass industry. The ability to transfer or combine quota further increased the flexibility of the system to respond to annual variations in fishing practices or landings patterns.

In response to some states' concerns about changing resource availability and associated fishery impacts, the Board formed a Commercial Black Sea Bass Working Group in August 2018 to identify management issues related to changes in stock distribution and abundance, and propose potential management strategies for Board consideration. In February 2019, the Board reviewed the Working Group report. The key issue the Working Group identified is that the state commercial allocations implemented in 2003 do not reflect the current distribution of the resource, which has expanded significantly north of Hudson Canyon. The Board then requested the Plan Development Team (PDT) perform additional analyses and further develop proposed management options related to the issue of state commercial allocations. After reviewing the PDT report, in October 2019 the Board initiated Draft Addendum XXXIII to consider changes to the black sea bass commercial state allocations. In December 2019, the Council initiated a complementary amendment to consider including the state shares in the Council FMP.

Table 1. State shares of Black Sea Bass as allocated by Addendum XIX to Amendment 13.

| State | Percent of <br> Coastwide Quota |
| :---: | :---: |
| Maine | $0.5 \%$ |
| New Hampshire | $0.5 \%$ |
| Massachusetts | $13 \%$ |
| Rhode Island | $11 \%$ |
| Connecticut | $1 \%$ |
| New York | $7 \%$ |
| New Jersey | $20 \%$ |
| Delaware | $5 \%$ |
| Maryland | $11 \%$ |
| Virginia | $20 \%$ |
| North Carolina | $11 \%$ |

### 2.3 Status of the Stock

The most recent stock status information comes from the 2019 operational stock assessment, which was peer-reviewed in August 2019 and approved for management use in October 2019 (NEFSC 2019). The assessment indicated that the black sea bass stock north of Cape Hatteras, North Carolina was not overfished and overfishing was not occurring in 2018, the terminal year of data used in the assessment.

The operational stock assessment updated the Age Structured Assessment Program (ASAP) models used in the 2016 benchmark stock assessment with commercial and recreational catch

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data, research survey and fishery-dependent indices of abundance, and analyses of those data through $2018^{3}$. For modeling purposes, the stock was partitioned into two sub-units divided approximately at Hudson Canyon to account for spatial differences in abundance and size at age. The sub-units are not considered separate stocks. Although the stock was assessed by subunit, the combined results were used to develop reference points, determine stock status, and recommend fishery specifications.

Spawning stock biomass (SSB), which includes both mature male and female biomass, averaged around 8 million pounds during the late 1980s and early 1990 s and then steadily increased from 1997 to 2002 when it reached 22.2 million pounds. From 2007 to 2014, SSB dramatically increased, reaching a peak in 2014 at 76.5 million pounds; since 2014 SSB has trended back down. After adjusting for retrospective error in the model, SSB in the terminal year (2018) is estimated at 73.6 million pounds, approximately 2.4 times the target SSB reference point (SSB ${ }_{\text {MSY }}$ proxy $=$ SSB40\% = 31.1 million pounds) (Figure 2). The (similarly adjusted) fishing mortality rate (F) in 2018 was 0.42 , about $91 \%$ of the fishing mortality threshold reference point ( $F_{\text {MSY }}$ proxy $=\mathrm{F} 40 \%$ ) of 0.46 . Except for 2017, F has been below the $\mathrm{F}_{\text {MSY }}$ proxy for the last five years. Average recruitment of black sea bass from 1989 to 2018 was 36 million fish at age 1. The 2011 year class was estimated to be the largest in the time series at 144.7 million fish and the 2015 year class was the second largest at 79.2 million fish. Recruitment of the 2017 year class as age 1 in 2018 was estimated at 16.0 million, well below the time series average.


Figure 2. Black sea bass spawning stock biomass and recruitment. Source: 2019 Operational Assessment Prepublication Report, Northeast Fishery Science Center.

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### 2.4 Status of the Fishery

The following information is based on commercial fishery dealer data (landings), the most recent stock assessment (discards), federal vessel trip reports (gear types and area of catch), and input from a small sample of fishermen and dealers. Input was provided by 6 individuals who primarily identify as fishermen and 4 individuals who represent two commercial fish dealers. Collectively, these 10 individuals are from 5 states and use three different gear types (i.e., bottom otter trawl, pot/trap, and hand line). Their input is not intended to be a representative sample of the commercial black sea bass fishery as a whole, but was solicited to provide context to trends shown in the data and document relevant information not captured in the available data.

Commercial landings have been constrained by a coastwide (i.e., Maine through Cape Hatteras, North Carolina) commercial quota since 1998, and state allocations were introduced in 2003. From 1998 to 2019, coastwide landings have closely followed quotas, ranging from a low of 1.16 million pounds in 2009 to a high of 3.98 million pounds in 2017 . State landings have also closely followed quotas since they were implemented in 2003. A process for interstate quota transfers was established in 2009, but until 2017 states were highly constrained by low quotas and thus there was not much opportunity for transfers. Under higher quotas more interstate transfers have occurred; in the last three years, the states of Massachusetts through New Jersey have all received quota transfers from other states to prevent or mitigate overages of their state quotas. Since the coastwide quota was implemented in 1998, on average commercial discards have constituted $17 \%$ of total commercial removals. Over the last five years of the time series (2014-2018) discards were generally higher, averaging $33 \%$ of total commercial removals; discards in recent years have likely been influenced by high availability coupled with quota and minimum fish size limitations.

The average price per pound paid to fishermen by dealers for black sea bass (adjusted to 2019 values based on the Gross Domestic Product Price Deflator) appears to show an inverse relationship with landings in the southern region states (New Jersey - North Carolina) during 2010-2019 (i.e., price generally decreased with increases in landings, $p=0.002$ ). There did not appear to be a strong relationship between price and landings in the northern region (Maine New York) during 2010-2019 ( $p=0.498$, Figure 3). Some fishermen and dealers said temporary price drops can occur at both local and regional levels due to increases in the coastwide quota, state-specific seasonal openings, or individual trawl trips with high landings, all of which can be interrelated. They note that these sudden price drops are often temporary and the price usually rises again. This is evident in the coastwide relationship between average price per pound and the coastwide quota, which increased by $52 \%$ mid-year in 2017 and then decreased by $15 \%$ from 2017 to 2018. The average coastwide price per pound dropped from $\$ 3.92$ in 2016 to $\$ 3.49$ in 2017, but increased to $\$ 3.82$ in 2018 (all prices are adjusted to 2019 values based on the Gross Domestic Product Price Deflator).

Input from fishermen and federal vessel trip report data from 2009-2019 suggest that in years with higher quotas, bottom trawl gear accounted for a greater proportion and pots/traps accounted for a smaller proportion of total commercial landings compared to years with lower quotas. For example, the lowest quotas during 2010-2019 occurred in 20010-2012. During those years, bottom trawl gear accounted for around $39-41 \%$ of total commercial black sea bass

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landings (depending on the year) and pots/traps accounted for about 33-36\%. In comparison, the highest quotas occurred in 2016-2019, during which around 52-61\% of total commercial black sea bass landings could be attributed to bottom trawl gear and around 21-26\% to pot/trap gear. Some fishermen have said trawlers are better able to take advantage of increases in quota as they can land higher volumes than vessels using pot/trap gear. This can be especially beneficial when the price of black sea bass drops (usually temporarily) in response to sudden increases of fish on the market.

According to commercial dealer data for 2010-2019, the average coastwide ex-vessel price per pound for black sea bass caught with bottom trawl gear was $\$ 3.90$ (adjusted to 2019 values), $6 \%$ greater than the average price for black sea bass caught with pots/traps (\$3.70). However, some fishermen report that they can get higher prices for black sea bass caught with pots/traps as they can market their fish as fresher and better quality than trawl-caught fish. Pot/trap and hook and line commercial fishermen in some states also sell black sea bass to live markets, which offer even higher prices. Some fishermen and dealers say size has a greater impact on price than gear, though the two are interrelated as fishermen using bottom trawl gear tend to land larger black sea bass than those using pots/traps.

The states have taken different approaches to managing their commercial black sea bass fisheries. Delaware, Maryland, and Virginia use Individual Transferable Quota (ITQ) systems, while other states utilize different combinations of quota periods, closed seasons, and initial or adjustable trip and possession limits to prevent quota overages ${ }^{4}$. For some states like Connecticut, quota availability and resulting management measures are highly dependent on quota transfers from other states. Some fishermen and dealers say they take these differences in state management measures into account when deciding when to fish, where to sell fish, and what price to offer for fish. For example, the price offered by local dealers may be higher when neighboring states are closed. Alternatively, some fishermen and dealers in comparatively low allocation states say they generally do not make business decisions based on black sea bass. Due to the low allocations in some states, black sea bass provides supplemental income for these fishermen and dealers, but is not a primary target species. For these reasons, the economic impacts of changes to state quotas can vary in part based on how states adjust their management measures in response to quota changes. For example, an increase in the possession limit could have different impacts than an extension of the open season. ITQ fishermen may be impacted differently than non-ITQ fishermen, and impacts may vary between gear types.

From 2010-2017, the commercial black sea bass landings from Maine through North Carolina which were caught in the northern region (as defined in the stock assessment, corresponding to approximately Hudson Canyon and north) increased steadily, with the greatest increases occurring during 2015-2017. After 2017, the proportion caught in the northern region declined, but remained much higher than the proportion from the southern region. During 2010-2019, the amount of commercial black sea bass landings caught in the southern region did not vary greatly (Figure 4).

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Figure 3. Average annual ex-vessel price per pound for black sea bass compared to annual black sea bass commercial landings by region (ME-NY and NJ-NC), 2010-2019, with associated linear relationship. Prices are adjusted to 2019 values based on the Gross Domestic Product Price Deflator. Data source: dealer data (CFDERS, provided by the NOAA Fisheries Greater Atlantic Regional Fisheries Office Analysis and Program Support Division).


Figure 4. Total commercial black sea bass landings, 2010-2019, Maine through North Carolina, by region of catch location (North or South). Region is assigned based on statistical area of catch using the delineation defined in the stock assessment. Landings with an unknown statistical area were assigned to region based on the state of landing. Data source: dealer AA tables provided by the Northeast Fisheries Science Center

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### 3.0 Proposed Management Program

The Board is seeking public comment on each of the options included in the Draft Addendum. A flowchart of all management options for modifying the commercial state allocations is found in Appendix 1. Note that the options listed in Section 3.2 would result in changes to the Council's FMP and the federal regulations, but not the Commission's FMP.

### 3.1 Management Options for Commercial State Allocations

## A. Status Quo (Current Commercial State Allocations)

This option would maintain the current state allocation percentages (Table 1).
B. Increase Connecticut Quota to 5\%

Note: This option is proposed for consideration before, or in addition to any of the following allocation options. It could also be selected as a standalone option if no other changes are desired. If this option is selected, the base allocations under any other option will be equal to the \% New Allocations shown in Table 2.

This option would increase Connecticut's $1 \%$ allocation of the coastal quota to $5 \%$. Connecticut has experienced a substantial increase in abundance of black sea bass in state waters over the last seven years (see Figure 5), though the state's 1\% allocation has remained unchanged. This option attempts to reduce the disparity between the abundance of black sea bass in Connecticut waters and Connecticut's quota allocation by increasing Connecticut's allocation to 5\%, using the following approach:

1) Hold New York and Delaware allocations constant. New York has experienced a similar substantial increase in black sea bass abundance in state waters; therefore, a reduction to the New York allocation is not proposed. Delaware's current allocation is $5 \%$. This option does not seek to make Connecticut's percent allocation larger than any other state.
2) Move half of Maine and New Hampshire quotas to Connecticut. Since 2012, neither Maine nor New Hampshire has reported commercial black sea bass landings, and neither state currently has declared an interest in the fishery.
3) Move some allocation from Massachusetts, Rhode Island, New Jersey, Maryland, Virginia, and North Carolina to Connecticut; the amount moved from each state would be proportional to that state's current percent allocation.

Table 2. Proposed changes in state allocations.

| State | Current \% <br> Allocation | Change in \% <br> Allocation | New \% <br> Allocation |  |
| :---: | :---: | :---: | :---: | :---: |
| ME | $0.5 \%$ | $-0.25 \%$ | $0.25 \%$ |  |
| NH | $0.5 \%$ | $-0.25 \%$ | $0.25 \%$ |  |
| MA | $13.0 \%$ | $-0.53 \%$ | $12.47 \%$ |  |
| RI | $11.0 \%$ | $-0.45 \%$ | $10.55 \%$ |  |
| CT | $1.0 \%$ | $4.00 \%$ | $5.00 \%$ |  |
| NY | $7.0 \%$ | $0.00 \%$ | $7.00 \%$ |  |
| NJ | $20.0 \%$ | $-0.81 \%$ | $19.19 \%$ |  |
| DE | $5.0 \%$ | $0.00 \%$ | $5.00 \%$ |  |
| MD | $11.0 \%$ | $-0.45 \%$ | $10.55 \%$ |  |
| VA | $20.0 \%$ | $-0.81 \%$ | $19.19 \%$ |  |
| NC | $11.0 \%$ | $-0.45 \%$ | $10.55 \%$ |  |



Figure 5. Connecticut Long Island Sound Trawl Survey Spring Black Sea Bass Index

## C. Dynamic Adjustments to Regional Allocations

The Dynamic Adjustments to Regional Allocations approach (DARA approach) is a formulaic method that aims to balance fishery stability and responsiveness to the changing distribution of the stock. State allocations would be gradually adjusted based on regional shifts in biomass distribution. Stock distribution (defined as proportion of exploitable biomass by assessment sub-area) would be derived from updated stock

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assessments or surveys ${ }^{5}$. This approach recognizes traditional involvement and investment in the development of the fishery, and addresses the changing distribution of the stock and the resulting effects within the fishery.

There are two phases to the DARA approach. The first is the transition phase, during which the initial allocations (either the current allocations, or allocations modified through option B) are gradually adjusted to allocations partially based on distribution of the stock. During this phase, the state allocations become less dependent on the initial allocations and more dependent on regional stock distribution.

After the transition phase is complete, the relative importance of the initial allocations and current stock distribution in determining the allocations would be fixed, but allocations would continue to be adjusted when updated stock distribution information becomes available. The DARA approach proposes use of the 2019 operational stock assessment results (NEFSC, 2019) and additional stock assessments thereafter to determine the values for regional stock distribution ${ }^{6}$. Taking into account the initial allocations and regional stock distribution, the two components are integrated to produce dynamic regional allocation shares, which are then subdivided into statespecific allocations. The formulas for calculating regional and state shares can be found in Appendix 2.

As described below, there are various sub-options to set the scale and pace of the change in allocations. Appendix 2 includes a complete description of the method and examples of the DARA approach retrospectively applied to recent years. If this option is selected, a regional configuration would also need to be selected under option set G .

## Sub-options for Dynamic Adjustments to Regional Allocations Approach

The DARA approach affords considerable flexibility, with regard to both the initial configuration and application of the allocation formula over time. The overall approach can be modified in various ways to achieve different results. Below are descriptions and proposed sub-options for each adjustable component of the approach. Note that the sub-options for each component represent the minimum and maximum bounds on the range of options; the Board could select an alternative configuration within this range.

## 1. Final relative importance of initial allocations versus resource distribution

The sub-options below determine the final relative importance of the initial allocations compared to stock distribution at the end of the transition phase. Before the transition begins (year 0), the allocations are 100\% based on the initial allocations, and 0\% based on stock distribution. The weights assigned to initial allocations and stock distribution

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must always sum to $100 \%$; therefore, if the final weight of the initial allocations is $10 \%$, the final weight of the resource distribution factor is $90 \%$. As the final weight of the distribution factor increases, the weight of the initial allocations decreases, and the regional allocations resulting from the DARA approach become more dependent on the spatial distribution of black sea bass biomass, and less dependent on the initial allocations.

- Sub-option C1-A: Under this option, at the end of the transition phase allocations are based $90 \%$ on stock distribution and $10 \%$ on the initial allocations.
- Sub-option C1-B: Under this option, at the end of the transition phase allocations are based $50 \%$ on stock distribution and $50 \%$ on the initial allocations.


## 2. Change in relative weights of each factor per adjustment

The transition to allocations based partially on historical allocations and partially on resource distribution would occur through incremental adjustments to the relative importance of each factor. These sub-options would determine how much the relative weights of the initial allocations and stock distribution factors would change with each adjustment. Larger adjustments could potentially result in a faster transition away from the initial allocations (see above). Smaller adjustments would likely result in a slower transition. Adjustments to the relative weights of each factor also have the potential to impact the regional allocations during the transition; smaller changes to the weights would likely produce smaller changes in the regional allocations during each adjustment.

- Sub-option C2-A: Under this option the relative weights of each factor (initial allocations and stock distribution) would change by $5 \%$ per adjustment. For example, in the first adjustment, the respective weights assigned to the initial allocations and stock distribution would change from $100 \% / 0 \%$ to $95 \% / 5 \%$. This would result in a slower transition to the final weighting scheme, and a slower change in the allocations compared to sub-option C2-B.
- Sub-option C2-B: Under this option the relative weights of each factor (initial allocations and stock distribution) would change by 20\% per adjustment. For example, in the first adjustment, the respective weights assigned to the initial allocations and stock distribution would change from $100 \% / 0 \%$ to $80 \% / 20 \%$. This would result in a faster transition to the final weighting scheme and a faster change in the allocations compared to sub-option C2-A.


## 3. Frequency of weight adjustments

These sub-options determine how often the weights assigned to each factor (initial allocations and stock distribution) would be adjusted during the transition phase. More frequent adjustments to the weights will result in a faster transition to the final weighting scheme. Note that each time an adjustment is made to the weights, it would

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likely result in a change to the allocations, even if the distribution information remains unchanged.

- Sub-option C3-A: Under this option adjustments to the weights assigned to the initial allocations and stock distribution would occur every year. This would result in a faster transition from the initial weights to the final weights. It could also result in yearly changes in the allocations, even if stock distribution information remains unchanged.
- Sub-option C3-B: Under this option adjustments to the weights assigned to the initial allocations and stock distribution would occur every other year. This would result in a slower transition from the initial weights to the final weights. It could also result in changes to the allocations every other year, even if stock distribution information remains unchanged.


## 4. Regional allocation adjustment cap

These sub-options would establish a cap for the maximum percent by which the regional allocations could change at one time. A lower \% cap would result in smaller incremental changes to the allocations, and could increase the total duration of the transition phase.

- Sub-option C4-A: This option would cap the change in regional allocations at a maximum of $3 \%$ per adjustment.
- Sub-option C4-C: This option would cap the change in regional allocations at a maximum of $10 \%$ per adjustment.
- Sub-option C4-D: Under this option there would be no cap to the change in regional allocations per adjustment. This means the regional allocations would change according to the formula based only on changes in the weights assigned to the initial allocations and stock distribution and any changes in resource distribution values.


## D. Trigger Approach

Using a trigger-based approach, a minimum level of coastwide quota would be established as a trigger for a change in allocations to the states. If the coastwide quota in a given year were higher than the established quota trigger value, then the coastwide quota would be distributed to the states in two steps: 1) the amount of coastwide quota up to and including the trigger would be distributed to the states according to "base allocations" (dependent on Option B, and sub-option set D4); and 2) the amount of quota in excess of the established trigger amount, hereafter referred to as the surplus quota, would be distributed using a different allocation scheme. This method somewhat reduces fishery disruption or instability by allowing changes to state allocations only when the coastwide quota exceeds a predetermined amount.

## Trigger Approach Sub-options

Below are all sets of sub-options for configuration of the trigger approach. The first set of sub-options relates to the established trigger value (sub-options D1-A and D1-B). The second set relates to how surplus quota above the trigger would be distributed among

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the states (sub-options D2-A, and D2-B). The third and fourth sub-option sets are only applicable if option D2-B is selected, and would establish how surplus quota would be distributed within a region, and whether base allocations would remain the same each year or change over time. Examples of several trigger approach configurations are provided in examples 1-6 in Appendix 3.

## 1. Trigger value

Note that the Board and Council could select an alternative value within the range of sub-options below.

- Sub-option D1-A: Trigger value of 3 million pounds

A 3 million pound trigger represents approximately the average coastwide commercial quota from 2003 through 2018, excluding years in which specifications were set using a constant catch approach (Figure 6).

- Sub-option D1-B: Trigger value of 4.5 million pounds

A 4.5 million pound trigger was selected by the Board as the maximum trigger level for consideration under this approach. It is greater than all quotas implemented prior to 2020 (i.e., maximum quota of 4.12 million pounds in 2017), but lower than the 2020 quota of 5.58 million pounds (Figure 6).


Figure 6. Black sea bass commercial quotas over time compared to 3 million, 4 million and 4.5 million pound triggers. Note that the Board and Council may recommend revisions to the 2021 quota during their August 2020 meeting.

## 2. Distribution of surplus quota

## - Sub-option D2-A: Even distribution of surplus quota

If the coastwide quota in a given year is higher than the trigger, then the surplus quota would be distributed equally to the states of Massachusetts through North Carolina. Maine and New Hampshire would each receive 1\% of the surplus, based on their historically low participation in the fishery. Should the annual

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coastwide quota be less than or equal to the established quota trigger, allocation percentages would default to the base allocations.

- Sub-option D2-B: Distribution of surplus quota based on regional biomass from stock assessment
This sub-option attempts to address the goal statement of this action by incorporating the regional biomass distribution. If the coastwide quota in a given year were higher than the trigger, then the surplus quota would first be allocated to each region based on regional biomass proportions from the stock assessment, and then the regional quotas would be distributed to the states within each region. A method for distributing quota to states within each region would be specified by selecting sub-option D3-A or D3-B. If this option is selected, a regional configuration would also need to be selected under option set G.


## 3. Distribution of regional surplus quota to states within a region (only applicable if

 Sub-option D2-B is selected)- Sub-option D3-A: Even distribution of regional surplus quota

Regional surplus quota would be distributed to the states within each region equally. ME and NH would each receive $1 \%$ of the northern region surplus quota. Examples of this allocation approach are provided in Appendix 3 (examples 3 and 5).

- Sub-option D3-B: Proportional distribution of regional surplus quota Regional surplus quota would be distributed to the states within each region in proportion to their initial allocations (see sub-option set D4). ME and NH would each receive $1 \%$ of the northern region surplus quota.


## 4. Allowing base allocations to change over time (only applicable if Sub-option D2-B is selected).

- Sub-option D4-A: Static base allocations

Under, this sub-option, the quota up to and including the trigger amount would be allocated based on the initial base allocations every year (status quo, or the modified allocations proposed in Option B). Examples of this allocation approach are provided in Appendix 3 (examples 1-3).

- Sub-option D4-B: Dynamic base allocations

Under this option, the quota up to and including the trigger amount would be allocated according to the previous year's final state allocations. This sub-option has the potential to change allocations more quickly than the static base allocations sub-option. Examples of this allocation approach are provided in Appendix 3 (examples 4-6).

## E. Trigger Approach with Increase to Connecticut and New York Quotas First

This option proposes a 3 million pound trigger (see previous section). Annually, the coastwide quota up to and including 3 million pounds would be distributed based on the initial allocations (Table 1). Surplus quota above 3 million pounds would first be used to

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increase Connecticut's allocation to 5\% of the overall quota, and then to increase New York's allocation to $9 \%$ of the overall quota. Any remaining additional quota would be split between the regions according to the proportion of biomass in each region based on the most recent stock assessment information, and then allocated among the states within each region in proportion to the initial allocations. Examples of this option are provided in Appendix 3 (examples 7 and 7-B). If this option is selected, a regional configuration would also need to be selected under option set $G$.

## F. Percentage of Coastwide Quota Distributed Based on Initial Allocations

This approach would allocate a fixed percentage of the annual coastwide quota using the initial allocations regardless of the coastwide quota level. Fluctuations in annual quota values would result in similar fluctuations in the number of pounds allocated using the initial allocations (equal to the status quo allocations, or the modified allocations proposed under Option B). For example, if the established percentage of quota to be distributed using the initial allocations is $50 \%, 2$ million pounds of a 4 million pound coastwide quota would be distributed using the initial allocations. Unlike the trigger approach, this approach would still allow a portion of the quota to be allocated using a distribution other than the initial allocations even under lower coastwide quotas. The sub-options below establish how the remaining quota would be allocated to the states.

## Percentage Approach Sub-options

Below are all sets of sub-options for configuration of the percentage approach. Examples of several percentage approach configurations are provided in Appendix 3 (examples 8-12).

## 1. Percentage of quota to be allocated using initial allocations

Note that the Board and Council could select an alternative value within the range of sub-options below.

- Sub-option F1-A: 25\%

Under this sub-option, $25 \%$ of the annual coastwide quota would be allocated to the states using the initial allocations. Therefore, $75 \%$ of the coastwide quota would be allocated to the states according to the sub-options selected in the following sets.

- Sub-option F1-B: 75\%

Under this sub-option, $75 \%$ of the annual coastwide quota would be allocated to the states using the initial allocations. Therefore, $25 \%$ of the coastwide quota would be allocated to the states according to the sub-options selected in the following sets.

## 2. Distribution of remaining quota

- Sub-option F2-A: Even distribution of remaining quota


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Remaining quota would be distributed equally to the states of Massachusetts through North Carolina. Maine and New Hampshire would each receive 1\% of the remaining quota, based on their historically low participation in the fishery.

- Sub-option F2-B: Distribution of remaining quota based on regional biomass from stock assessment
Remaining quota would first be allocated to each region based on regional biomass proportions from the stock assessment, then regional quotas would be distributed to the states within each region. A method for distributing quota to states within each region would be specified by selecting sub-option F3-A or F3B. If this option is selected, a regional configuration would also need to be selected under option set G.


## 3. Distribution of regional quota to states within a region <br> (Only applicable if Sub-option F2-B is selected)

- Sub-option F3-A: Even distribution of regional quota

Remaining quota would be distributed to the states within each region equally, except ME and NH would each receive $1 \%$ of the northern region quota.

- Sub-option F3-B: Proportional distribution of regional quota

Remaining quota would be distributed to the states within each region in proportion to their initial allocations, except ME and NH would each receive 1\% of the northern region quota.

## G. Regional Configuration Options

Options C through F consider changing the current state allocations to incorporate regional distribution information from the stock assessment. In order to apply a regional component to the allocations, it is necessary to establish a regional configuration. The following sub-options establish which states would be grouped together as regions for the purposes of allocating a combined regional quota which would then be distributed to the states in each region. Though neither state has declared an interest in the fishery, Maine and New Hampshire are included in the northern region and their allocations will be determined according to the allocation approach selected above.

- Sub-option G1: This option would establish two regions: 1) ME-NY, and 2) NJ-NC. These regions generally align with those used for the assessment, which used Hudson Canyon as the dividing line based on several pieces of evidence that stock dynamics have an important break in this area.
- Sub-option G2: This option would establish three regions: 1) ME-NY; 2) NJ; and 3) DE-NC. This option attempts to address the unique position of New Jersey by treating it as a separate region, as the state straddles the border between the northern and southern spatial sub-units at Hudson Canyon (Figure 7). Under this option, New Jersey's initial 20\% allocation is treated as follows: $10 \%$ is considered to come from the northern region, and $10 \%$ from the southern region. As the regional allocations change, NJ's "northern" 10\% of the coastwide quota will change according to the proportion of biomass in northern region, and


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the "southern" $10 \%$ will change according to the proportion of biomass in the southern region. NJ's total allocation will be the sum of the northern and southern components of its allocation. This is consistent with the spatial distribution of black sea bass landings in recent years, which is roughly an even split between north and south of Hudson canyon (see Table 3 and Figure 8).


Figure 7. NMFS statistical areas showing the dividing line between the northern and southern regions as defined in the black sea bass stock assessment.

Table 3. Proportion of black sea bass commercial harvest landed in New Jersey from northern and southern region statistical areas. Only landings associated with valid northeast region statistical areas were included in the calculations. Data were provided by the ACCSP. Landings by area were estimated by applying VTR proportions of landings by area to dealer data.

|  | oे | $\underset{\sim}{7}$ | $\underset{\sim}{\sim}$ | $\underset{\sim}{\underset{\sim}{c}}$ | $\underset{\sim}{\underset{N}{N}}$ | $\stackrel{\sim}{i}$ | $\stackrel{0}{0}$ | $\underset{\sim}{i}$ | $\stackrel{\infty}{\stackrel{1}{N}}$ | $\stackrel{\square}{0}$ | $\begin{gathered} \hline \text { Average } \\ 2010- \\ 2019 \end{gathered}$ | Average 20102014 | $\begin{gathered} \hline \text { Average } \\ \text { 2015- } \\ 2019 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \% North | 38\% | 28\% | 47\% | 46\% | 54\% | 78\% | 65\% | 74\% | 58\% | 57\% | 54\% | 43\% | 66\% |
| \% South | 62\% | 72\% | 53\% | 54\% | 46\% | 22\% | 35\% | 26\% | 42\% | 43\% | 46\% | 57\% | 34\% |

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Figure 8. Proportion of black sea bass commercial harvest landed in New Jersey from northern and southern region statistical areas by year.

### 3.2 Management Options for Changes to Federal Regulations

The Council amendment will also consider 1) whether the state allocations should be added to the Council's FMP or if they should remain only in the Commission's FMP, 2) if added to the Council's FMP, should changes be made to the regulations regarding paybacks of state quota overages, and 3) whether to modify regulations regarding federal in-season closures. The following options relate to Council management and the federal regulations.

### 3.2.2 Options for adding state commercial allocations to the Council FMP

A. Status Quo (No action): Commercial state allocations included only in the Commission's FMP
Under this option, the black sea bass commercial state allocations would remain only in the Commission's FMP. Changes to these allocations would not require a joint action with the Council.
B. Commercial state allocations for black sea bass included in both Commission and Council FMPs
Under this option, the state allocations would be added to the Council's FMP. Future changes to the allocations would be considered through a joint action between the Commission and Council.

Including the state allocations in both FMPs would require NOAA Fisheries to monitor landings at the state level. Transfers of quota between states would continue to be allowed, but would be managed by NOAA Fisheries, rather than the Commission. It should be noted there are differences between the two bodies in how transfers are conducted. The Commission allows for transfers to occur at any time in the fishing season up to 45 days after the last day of the fishing season. Commission transfers are not limited. While NOAA Fisheries allows for late season quota transfers for other species, they are limited to unforeseeable late season events. Generally, the deadline

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for a state to submit routine transfer requests is the close of business on December 16. While the Commission allows for transfers at the end or after the fishing season to help states balance quota overages, NOAA Fisheries would likely not allow for such transfers unless the overage was unforeseen in the last two weeks of the fishery; the burden of proof would then be on the state to justify the transfer. Lastly, the Commission is able to approve and finalize transfers within a day or two of receiving the request, while quota transfers through NOAA Fisheries may take several weeks to be finalized.

If this option is selected, the following sub-options could modify the Council's FMP to establish how overages of state quotas are handled.

- Sub-option B1: Paybacks only if coastwide quota is exceeded. Under this option, states would only pay back overages of their allocations if the entire coastwide quota is exceeded. This is the current process for state-level quota overages under the Commission's FMP (Addendum XX). No other changes to the current commercial accountability measure regulations would be made.
- Sub-option B2: States always pay back overages. Under this option, the exact amount in pounds by which a state exceeds its allocation would be deducted from their allocation in a following year, regardless of if the coastwide quota was exceeded or not. All other aspects of the commercial accountability measures would remain unchanged.


### 3.2.2 Options for federal in-season closures

The Board and Council are considering three options related to in-season federal closures. The current regulations for in-season closures require the entire commercial fishery to close inseason for all federally permitted vessels and dealers, regardless of state, once the coastwide quota is projected to be landed. This has not occurred to date; however, concerns have been expressed about the potential for overages in some states to impact all states through inseason closures.

The following options specify when the commercial fishery would close in-season for all federal permit holders coastwide. Under all options below, individual states would close in-season if their allocations are reached prior to the end of the year, as is currently required under the Commission's FMP.
A. Status Quo (No action): coastwide federal in-season closure when landings are projected to exceed the coastwide quota
Under this option, the entire commercial fishery would close in-season for all federally permitted vessels and dealers, regardless of state, once the coastwide quota is projected to be landed, as is currently required under the Council's FMP.
B. Coastwide federal in-season closure when landings are projected to exceed the commercial quota plus a buffer of up to $5 \%$
Under this option, the entire commercial fishery would close in-season for all federally permitted vessels and dealers, regardless of state, once landings exceed the coastwide quota plus an additional buffer of up to $5 \%$. The Council and Board would agree to the appropriate buffer for the upcoming year through the specifications process. The intent

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behind allowing an additional buffer is to help minimize negative economic impacts of coastwide closures on states that have not fully harvested their allocations. This is not expected to create an incentive for quota overages as states would still be required to close when their state-specific quotas are reached and states would still be required to pay back quota overages (see sub-option set above).
C. Coastwide federal in-season closure when the commercial ACL is projected to be exceeded.
Under this option, the entire commercial fishery would close in-season for all federally permitted vessels and dealers, regardless of state, once the coastwide commercial ACL is projected to be landed, as opposed to when the quota is projected to be landed under the current regulations. Discards in weight cannot be monitored in-season using current discard estimation methods. Therefore, in practice, this option would require GARFO to make assumptions about discards in the current year.

### 4.0 Compliance

TBD

### 5.0 Literature Cited

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MAFMC. 2003. Amendment 13 to the Fishery Management Plan for Black Sea Bass. Available at: http://www.mafmc.org/sf-s-bsb
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Appendix 1. Flowchart of Management Options for Commercial State Allocations





# Proposed New Allocation Alternative For Black Sea Bass: Dynamic Adjustment to Regional Allocations (DARA) 

Black Sea Bass PDT

17 July 2020

## Introduction

This proposal offers a new alternative for modifying the allocation of the commercial black sea bass quota. It involves a dynamic approach for gradually adjusting state-specific allocations using a combination of historical allocations and current levels of stock distribution. The alternative is modeled after the Transboundary Management Guidance Committee (TMGC) approach, which was developed and used for the management of shared Georges Bank resources between the United States and Canada.
As noted by Gulland (1980), the designation of units for management entails a compromise between the biological realities of stock structure and the practical convenience of analysis and policy making. For black sea bass, the Atlantic Coast states from North Carolina to Maine - acting through and by the MAFMC, ASMFC, and GARFO - use a single management unit encompassing the entire region occupied by the stock, from the southern border of North Carolina northward to the U.S.- Canadian border. While there is a general scientific consensus that the black sea bass population has shifted its center of biomass to the northen portion of its range (Bell et al. 2014 and NEFSC 2017), the current management structure, as reflected by current state-by-state allocations, does not recognize this new population dynamic.

This new alternative sets forth an approach that balances stability within the fishery, based on historical allocations, with gradual adjustments to the fishery, based on regional shifts in stock distribution emanating from updated stock assessments or surveys. The approach affords considerable flexibility, both with regard to initial configurization and application over time. A key feature involves the use of an algorithm to guard against abrupt shifts in allocations.
This new alternative draws upon established principles of resource sharing, which include consideration of access to resources occurring or produced in close spatial proximity to the states in the management unit and historical participation in the exploitation of the resources (Gavaris and Murawski 2004). The former has emerged from the changing distribution of the black sea bass resource and the effects this creates within the fishery. The latter recognizes traditional involvement and investment in the development of the fishery since the the beginning of black sea bass joint management in 1996. Both principles were incorporated in the TMGC approach; historical participation was initially afforded primary emphasis, then gradually down-weighted so that, after a nine-year phase-in period, the annual allocation was based primarily on stock distribution (Murawski and Gavaris 2004). The approach proposed here for black sea bass is similar; the proposal envisions a gradual transition, giving more weight to historical participation at first, then slowly phasing in the distributional aspects over time, and then implements changes to state specific allocations through a two-step process.

Details for the calculations used for the TMGC approach were described by Murawski and Gavaris (2004). Modifications to that approach are necessary, given key differences between the shared Georges Bank resources and the shared black sea bass resource. Those differences include the state-by-state allocation system currently in place for black sea bass, the need to translate from regional to state-specific allocations, and the need to accomodate multiple jurisdictional differences in the fishery.

This new alternative proposes use of existing state-by-state allocations to reflect initial values for historical participation (aka initial allocations) and proposes use of the 2019 update stock assessment results(NEFSC 2019) to determine the values for stock distribution; the two values are then integrated in the form of regional shares. An alternative to using the stock assessment would be to use synoptic trawl survey information. This potential alternative is described in more detail below. The two regions as defined in the assessment are proposed: (1) ME - NY, (2) NJ - NC. They emanate from the spatial stratification of the stock in to units that generally align with those used for the assessment, which used the Hudson Canyon as the dividing line based on several pieces of evidence that stock dynamics had an important break in this area. These regional shares are then sub-divided into state-specific allocations.

The overall approach can be modified by the Board and Council in various ways. For example, sub-alternatives can be developed for:

- the regional configuration;
- the values for historical participation/initial allocations (e.g., current, status quo allocations, or some variant thereof);
- the weighting values for Initial Allocation and Stock Distribution (90:10, or some variant thereof);
- the increment of change in these values from one year to the next $(10 \% /$ year, or some variant thereof, and;
- the periodicity of adjustments (e.g., annually vs. biannually).

A cap can also be established to limit the amount of change to the allocations during an adjustment (e.g. $3 \%-10 \%$ ).

## Data and Methods

## Formula

Adapted from the TMGC application (TMGC 2002), the approach for calculating the respective regional shares, which takes historical utilization in to account and adapts to shifts in stock distribution, is as follows:

$$
\begin{equation*}
\% \text { RegionalShare }=\left(\alpha_{y} * \sum_{r} \text { StateSpecAlloc }\right)+\left(\beta_{y} * \% \text { ResDistr }_{r, y}\right) \tag{1}
\end{equation*}
$$

Where $\alpha_{y}=$ percentage weighting for utilization by year; $\beta_{y}=$ percentage weighting for stock distribution by year; $\alpha_{y}+\beta_{y}=100 \%$; StateSpecAlloc $=$ state specific allocation; ResDistr $=$ stock distribution; $r=$ region; $y=$ year

## Proposed regions:

There are two choices for regional configuration: (1) ME - NY and NJ - NC, or (2) ME - NY, NJ, and DE NC.

Proposed values for historical participation/initial allocation:
See Initial Allocation section below.
Proposed values for stock distribution:
The current proposal is to use the distribution in the two regions based on the stock assessment exploitable biomass calculations. This could be altered to use synoptic trawl survey information, therefore stock distribution would be based on most recent trawl survey information in that case.

Proposed percentage weighting values for initial allocation and stock distribution:
The initial sharing formula is proposed to be based on the weighting of initial allocation (from historical allocations) by $90 \%$ and the weighting of stock distribution by $10 \%$. By the end of the period the shares will be the reciprocal; initial allocation at $10 \%$ and stock distribution at $90 \%$. Additional alternatives are presented below.

Proposed increments of change in the weighting values from one adjustment period to the next: Initially proposed at $10 \%$ per period. Thus, $90: 10$ to begin, then: $80: 20,70: 30,60: 40,50: 50 ; 40: 60 ; 30: 70 ; 20: 80$,
concluding at 10:90. Other alternatives are tested below.
Proposed periodicity of the adjustments:
Bi-annually based on stock assessment updates. If the survey alternative were used, this could be increased to annually.

## Overall time horizon for the transition:

The initial proposal would conclude in 9 years. If commenced in 2020, it would conclude in 2028. The duration is dependent on the other options chosen

With these - or alternative - parameters assigned, the region-specific shares then need to be prorated into the existing state-specific allocation structure. This can be accomplished by the equation:

$$
\begin{equation*}
\text { NewStateAllocation }=\frac{\text { Allocation }_{s}}{\sum_{r} \text { StateSpecAlloc }^{\prime}} * \% \text { RegionalShare } \tag{2}
\end{equation*}
$$

Where Allocation $_{s}=$ the specific state being calculated and the other parameters have already been defined above. This formula basically takes the existing state specific allocations and reproportions them in to the share they represent within the region.

## Initial Allocations

Historical state-specific commercial allocations for black sea bass are codified in Amendment 13 to the Fishery Management Plan for Black Sea Bass (FMP) (MAFMC 2003) (Table 2). These allocations can serve as the basis for the initial allocation values in the allocation formula. These values, as used in the formula, would remain consistent throughout the reallocation process, even as the final state allocations change over time, based on equations 1 and 2. This is philosophically consistent with the FMP, as this portion of the allocation formula is meant to represent the historical fishing aspects of the black sea bass fishery.
However, alternative strategies (set forth in the form of sub-alternatives) could be used to set the initial allocation design. That is, the initial initial allocation portion of the allocation design could be adjusted, via revised state allocations, before transitioning into the formulaic approach to be used as the process moves forward.

One way to implement this type of approach would be the following, working from equation 2 above:

$$
\begin{equation*}
\text { NewStateAllocation }=\frac{\text { Allocation }_{s}+\lambda_{s}}{\sum_{r} \text { StateSpecAlloc }} * \% \text { RegionalShare } \tag{3}
\end{equation*}
$$

Where $\lambda=$ a state specific allocation additive or reduction factor and $s=$ the state being calculated.
This formula allows for a shift in initial (status quo) allocations to account for potential discrepencies believed to be represented in the existing allocations. Currently, a proposal to add an initial amount to CT's allocation has been considered by the black sea bass management board, so using the equation above, a new allocation amount $(\lambda)$ would be added to the historical allocation for $\mathrm{CT}(s)$.

## Stock Distribution

This proposal offers two options for calculating the stock distribution. The first option would be to use the spatial stock assessment to determine the amount of resource in each region (north $=\mathrm{NY}, \mathrm{CT}, \mathrm{RI}, \mathrm{MA}, \mathrm{NH}$, ME; south = NJ, DE, MD, VA, NC). The spatial stock assessment calculates a north and south exploitable biomass value, which can then be turned in to a proportion. The benefit of this approach is this number is calculated through a synthesis of many biological parameters and represents the best available science for the population. The drawback is that the assessment is updated periodically (not every year), therefore the information will not be evaluated every year, but would depend on the assessment cycle. Additionally, if the spatial stock assessment were to fail at some point in the future, this would impact the ability to do the dynamic allocation calculations. The current estimated allocation from the 2019 update assessment would be 5,272 MT ( 2018 exploitable biomass) in the south, $16,924 \mathrm{MT}$ ( 2018 exploitable biomass) in the north,
equating to $24 \%$ of the exploitable biomass in the south and $76 \%$ of the exploitable biomass in the north (NEFSC 2019). It is important to note that these are the unadjusted exploitable biomass amounts from the assessment. Since data are readily available for this option, an example calculation and projection has been developed below. The process set forth below addresses total biomass, but it could be modified (and presented as a sub-alternative) to address exploitable biomass.

As an alternative, values for stock distribution can be obtained and calculated using scientific surveys, with results apportioned into regions. Since surveys are undertaken annually, the values for stock distribution, by region, can be recalculated and updated annually, biannually, or upon whatever timeframe is deemed most appropriate, affording an opportunity to regularly adjust allocations in sync with shifts in stock distribution. Such shifts may, or may not, follow consistent trends. Accordingly, the technique affords a dynamic approach, consistent with actual changes in stock distribution. Drawing upon the TMGC approach, a swept area biomass, considered a relative index of abundance, can be computed in each stratum, then summed to derive the biomass index for each region. The biomass index estimate derived from each survey would represent a synoptic snapshot of stock distribution at a specific time during a year. Combining the results of multiple surveys requires an understanding of seasonal movement patterns and how much of the biological year each survey represents. For this reason, it is proposed to use the National Marine Fisheries Service (NMFS) Trawl Survey in combination with the North East Area Monitoring and Assessment Program (NEAMAP) Survey. These are both well-established surveys, currently used in the stock assessment, and are synoptic, covering both offshore and inshore strata. As proposed in this alternative, the existing survey strata could be used to partition the survey information into two stock regions: (1) ME - NY, and (2) NJ - NC. The strata do not align perfectly with these two spatial configurations, but they are relatively close (Figures 1 and 2). Table 1 provides an example of how the strata could be applied for each region.


Figure 1: Map of National Marine Fisheries Service trawl survey strata.


Figure 2: Map of North East Area Monitoring and Assessment Program trawl survey strata.

Table 1 - Strata or Region assigned to each region for stock distribution calculations.

| Regions | NMFS Strata | NEAMAP Regions |
| :--- | :--- | :--- |
| Region 1: ME - NY | $1-40$ | $1-5$, BIS, RIS |
| Region 2: NJ - NC | $3,61-76$ | $6-15$ |

*Note: This is a first cut, these should be finalized through discussions between the TC and survey staff.
This approach could be refined over time by developing area polygons that better align with the boards desired regional configuration. Then, using the spatial information from the surveys, the survey information could be partitioned into the polygons.

Additionally, there may be ways to use state survey information within the analysis - either directly by averaging those surveys into the swept area biomass calculations, or indirectly such as using them to verify or corroborate the information from the surveys used in the calculations. Such use of state survey information could be developed and integrated into the process over time via analysis and recommendations from the monitoring and technical committees.

A robust, locally weighted regression algorithm (Cleveland 1979), referred to as LOESS, could then be used to mitigate excessive variations in sampling results. Per the TMGC approach, a $30 \%$ smoothing parameter could be used. That level of smoothing was chosen because it reflected current trends, was responsive to changes, and provided the most appropriate results for contemporary resource sharing. The recommended
default of two robustness iterations also was adopted (Cleveland 1979) in the TMGC approach and could also be adopted here. Stock distributions could then be updated annually by incorporating data from the latest survey year available and dropping data from the earliest survey used in the previous year so that a consistent window of data is maintained. After the surveys are combined, the LOESS smoother would be applied to the survey data. The fixed initial allocation ( $90 \%$ weighting in year 1 ) and the most recent stock distributions as calculated by the surveys ( $10 \%$ weighting in year 1 ) can then be applied to the sharing formula to determine regional allocation shares for the upcoming fishing year.
The benefit of this approach is that it could be performed annually with the most contemporary data. The drawback is that survey data are prone to variability. The LOESS smoothing and the adjustment cap that is set forth below are designed to account for some of this variability to keep it from causing unreasonable changes in a single year.

As a final nuance to the survey alternative, a sophisticated modeling approach could be developed to achieve the same information as above. Techniques like the use of the VAST model (Thorson 2015) have been shown to be appropriate for this type of an analysis and could be adopted, in lieu of the swept area biomass technique, as a method for calculating stock distribution by region.

For this proposal, the assessment technique will be used as there is actual data that can be used to examine an example. With additional work, a retrospective analysis using trawl survey information could be developed.

## Adjustment cap

In addition to the formula for calculating the regional allocations and then translating into the state specific allocations, additional measures could be added by way of an adjustment cap. Such measures would enable various checks and balances to be incorporated into the process to guard against unintended consequences.

One such algorithm, proposed here, is to guard against any abrupt change occurring to any regional allocation in any given year (or other time frame), and thus minimize short-term impacts, by capping the amount of any annual or bi-annual change to the regional shares anywhere between $3-10 \%$. This can be shown as:

$$
\% \text { RegionalShare }= \begin{cases}3 \text { to10\%, } & \text { if } \Delta \text { AnnualChange }>3 \text { to } 10 \%  \tag{1}\\ \% \text { RegionalShare }, & \text { if } \Delta \text { AnnualChange } \leq 3 \text { to } 10 \%\end{cases}
$$

The effect would be to ensure that any changes to allocations occur incrementally, even in a case of large shifts in stock distribution in any given year or period. This algorithm serves as an additional layer of protection against large changes, in addition to the other factors outlined above that are also built in to contend with uncertainty and variability.

## Flexibility

A key attribute of this proposed new approach for modifying the allocation system is its flexibility. All of the decision points set forth in this proposal, once agreed to, can be adjusted as the process moves forward. Such adjustments, emanating from routine reviews by the Board and Council, can address any of the range of parameters initially set by the Board and Council. The Board and Council could define how changes to the system would be considered and enacted moving forward - e.g., via Addenda and Frameworks, the specifications process, or some other mechanism. The ranges of parameters/issues that readily lend themselves to such adjustment include:

- The $\alpha$ and $\beta$ parameters can be adjusted to change the way the utilization and distribution are weighted in the equation;
- The increment of change in the $\alpha$ and $\beta$ parameters can be adjusted to increase or decrease the transition speed;
- The initial state allocations can be set at status quo, or shifted to accommodate various objectives; and
- The adjustment cap can be adjusted to be more or less protective of incremental changes.

Given such flexibility, the Board and Council could decide to implement a transition program that begins in 2021, with either current, status quo allocations, or some variant thereof, and based on assessment information through 2018 (same information used for the proposed 2019 operational stock assessment update), establish stock distribution values for each of the two regions. Using those parameters, and a weighting of allocations by $90 \%$ and stock distribution by $10 \%$, enact new, slightly revised state-specific allocations for 2021. If the Board and Council opted for a transitional program involving $10 \%$ annual increments, until the weightings reached $10 \%$ utilization from initial allocations and $90 \%$ stock distribution, this sharing formula would transition from a 90:10 initial allocation-to-stock distribution weighting in 2021 to a $10: 90$ weighting by 2029. During every adjustment, the trawl survey information would be updated and factored into the stock distribution values. As such, each regional and associated state-specific adjustment would not necessarily be the same, whether in magnitude or direction.

Alternatively, the Board and Council could opt for a transitional program involving $10 \%$ increments every two years, or $5 \%$ annual increments, or $5 \%$ increments every two years, etc. Those alternatives would significantly slow the transition. Some of these variants are illustrated below as examples.

## Example

The following are examples of how the new approach can be applied; it incorporates various proposed or strawman parameters, all of which can be modified upon review and consideration by the Board and Council:

- The assessment information is used to calculate the Stock Distribution values.
- Step 1: Apply the state-specific allocations and stock distribution information to equation 1.
- Summed state allocations for Region 1 (sum of ME-NY)

```
sum.reg1
```

\#\# [1] 0.33

- Summed state allocation for Region 2 (NJ - NC)
sum.reg2
\#\# [1] 0.67
- Step 2: Apply the Stock Distribution information to equation 1.
- Strawman values:
dist.reg1 $=0.76$
dist.reg2 $=0.24$
- Step 3: Select the increment of adjustment, which will determine the $\alpha$ and $\beta$ parameters for equation 1 for year 1 :
- The initial sharing formula is proposed to be based on an annual $10 \%$ adjustement resulting in the weighting of historical allocations by $90 \%$ and the weighting of stock distribution by $10 \%$. Thus:

```
alpha = 0.9
```

beta $=0.1$

- Step 4: Calculate the results, in the form of proportional regional shares, from equation 1:

```
# Region 1 equation and result
Reg1.Share = (alpha*sum.reg1) + (beta*dist.reg1)
Reg1.Share
```

\#\# [1] 0.373

```
# Region 2 equation and result
Reg2.Share = (alpha*sum.reg2) + (beta*dist.reg2)
Reg2.Share
## [1] 0.627
```

- This does not account for any change to the original allocations, see step 6 below.
- Step 5: Determine need to apply the adjustment cap

```
# Algorithm
if (abs(Reg1.Share-sum.reg1) > 0.1 | abs(Reg2.Share-sum.reg2) > 0.1 ) {
    if (Reg1.Share-sum.reg1 > 0) {
        Reg1.Share = (sum.reg1*(0.1))+sum.reg1
        Reg2.Share = (sum.reg2*(-0.1))+sum.reg2
    }
    if (Reg2.Share-sum.reg2 > 0) {
        Reg1.Share = (sum.reg1*(-.1))+sum.reg1
    Reg2.Share = (sum.reg2*(0.1))+sum.reg2
    }
}
```

- As proposed, the rule would cap any change at $10 \%$. Since none of the resulting shares change by more than $10 \%$, the algorithm would not apply in this case.
- Step 6: Establish the state-specific allocation structure to be pro-rated by the regional shares. This example does not apply a $\lambda$ value to alter the allocations per equation 3 .
- The state-specific allocations could be the current, status quo allocations; or they could be variants, established via equation 3.

Table 2 - Current state by state allocations.

| State | Current Allocation |
| :--- | ---: |
| Maine | 0.005 |
| New Hampshire | 0.005 |
| Massachusetts | 0.130 |
| Rhode Island | 0.110 |
| Connecticut | 0.010 |
| New York | 0.070 |
| New Jersey | 0.200 |
| Delaware | 0.050 |
| Maryland | 0.110 |
| Virginia | 0.200 |
| North Carolina | 0.110 |

Four hypothetical examples of state-specific allocations under the new program were performed and are presented below (Tables 3, 4, and 5; Figures 3, 4, and 5).

Example 1: The first example represents a configuration resulting in more liberal change in state allocations. The parameters are set as follows: 2 regions (ME - NY; NJ - NC); initial allocation $=$ status quo allocations ; transition from 90:10 to 10:90; $10 \%$ per year change in the transition from utilization to distribution; annual adjustments; the transition time to $90 \%$ weight on the stock distribution is 9 years; $10 \%$ adjustment cap; distribution assumption is based on the exploitable biomass by region from the assessment for the time period of 2004-2012; distribution of adjustments to states within a region are based on initial allocations.

Example 2: The second example represents a more conservative configuration, with more limited changes to state allocations. The parameters are set as follows: 2 regions (ME - NY; NJ - NC); initial allocation = status quo allocations; transition from 90:10 to $30: 70$; $5 \%$ per year change in the transition from utilization to distribution; annual adjustments; the transition time to $70 \%$ weight on the stock distribution is 12 years; $3 \%$ adjustment cap; distribution assumption is based on the exploitable biomass by region from the assessment for the time period of 2004-2015; distribution of adjustments to states within a region are based on initial allocations.

Example 3: The final example is intended to showcase a number of additional modifications that could be made to the approach to achieve certain objectives. In discussions amongst the PDT (and previously the Board regarding recreational black sea bass) it has been noted that it may be appropriate to treat New Jersey as an individual region due to its geographic position straddling the division of the Northern and Southern regions adjacent to Hudson Canyon. Additionally, this option increases the allocations for Connecticut and New York due to their allocations being disproportionate to their current resource availability (as defined in Equation 3 above). Lastly, the PDT discussed the option of holding Maine and New Hampshire's current allocations static throughout the transaction. To demonstrate these modifications, the parameters are set as follows: 4 regions (ME and NH remaining as a non-dynamic region with static allocations; MA - NY; NJ as a stand-alone region; and DE-NC); initial allocation $=\mathrm{CT}$ and NY base allocations increased by $1 \%$ in each of the first three years; transition from 90:10 to 10:90; $10 \%$ per year change in the transition from utilization to distribution; annual adjustments; the transition time to $90 \%$ weight on the stock distribution is 9 years; $10 \%$ adjustment cap; distribution assumption is based on the exploitable biomass by region from the assessment for the time period of 2004-2012, and assumes NJ gets $10 \%$ of its allocation from the northern region distribution and $10 \%$ of its allocation from the southern region distribution; distribution of adjustments to states within a region are based on initial allocations plus the incremental change as noted above.
The allocations presented in these tables would be different if any of the parameters were changed. Additionally, note that these examples are based on a scenario where the approach was implemented in 2004. The example shows how the system would work and the effects to the states over the initial period of adjustment from initial allocation having the highest weight in the equation to stock distribution having the highest weight during a period of time where the exploitable biomass was rapidly changing.

Table 3 - Allocation trajectory for all states under the parameters outlined in example 1 above. The adjustment cap is not triggered in any year in this example. This is a retrospective analysis as if this method were in place beginning in 2004.

| State | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Maine | 0.005 | 0.006 | 0.006 | 0.007 | 0.008 | 0.008 | 0.009 | 0.011 | 0.011 |
| New Hampshire | 0.005 | 0.006 | 0.006 | 0.007 | 0.008 | 0.008 | 0.009 | 0.011 | 0.011 |
| Massachusetts | 0.137 | 0.147 | 0.158 | 0.174 | 0.195 | 0.210 | 0.238 | 0.275 | 0.293 |
| Rhode Island | 0.116 | 0.125 | 0.134 | 0.147 | 0.165 | 0.178 | 0.201 | 0.233 | 0.248 |
| Connecticut | 0.011 | 0.011 | 0.012 | 0.013 | 0.015 | 0.016 | 0.018 | 0.021 | 0.023 |
| New York | 0.074 | 0.079 | 0.085 | 0.094 | 0.105 | 0.113 | 0.128 | 0.148 | 0.158 |
| New Jersey | 0.195 | 0.187 | 0.179 | 0.167 | 0.151 | 0.139 | 0.119 | 0.090 | 0.076 |
| Delaware | 0.049 | 0.047 | 0.045 | 0.042 | 0.038 | 0.035 | 0.030 | 0.023 | 0.019 |
| Maryland | 0.107 | 0.103 | 0.098 | 0.092 | 0.083 | 0.077 | 0.065 | 0.050 | 0.042 |
| Virginia | 0.195 | 0.187 | 0.179 | 0.167 | 0.151 | 0.139 | 0.119 | 0.090 | 0.076 |
| North Carolina | 0.107 | 0.103 | 0.098 | 0.092 | 0.083 | 0.077 | 0.065 | 0.050 | 0.042 |



Figure 3: Allocation trajectory for all states under the parameters outlined in example 1 above. The adjustment cap is not triggered in any year in this example. This is a retrospective analysis as if this method were in place beginning in 2004.

Table 4 - Allocation trajectory for all states under the parameters outlined in example 2 above. The adjustment cap is triggered in each year from 2012 through 2015 in this example. This is a retrospective analysis as if this method were in place beginning in 2004. The adjustment cap is triggered in 2012-2015 in this example.

| State | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Maine | 0.005 | 0.005 | 0.006 | 0.006 | 0.006 | 0.007 | 0.007 | 0.007 | 0.007 | 0.007 | 0.008 | 0.008 |
| New Hampshire | 0.005 | 0.005 | 0.006 | 0.006 | 0.006 | 0.007 | 0.007 | 0.007 | 0.007 | 0.007 | 0.008 | 0.008 |
| Massachusetts | 0.134 | 0.139 | 0.144 | 0.152 | 0.162 | 0.170 | 0.176 | 0.182 | 0.187 | 0.193 | 0.198 | 0.205 |
| Rhode Island | 0.113 | 0.117 | 0.122 | 0.129 | 0.137 | 0.144 | 0.149 | 0.154 | 0.159 | 0.163 | 0.168 | 0.173 |
| Connecticut | 0.010 | 0.011 | 0.011 | 0.012 | 0.012 | 0.013 | 0.014 | 0.014 | 0.014 | 0.015 | 0.015 | 0.016 |
| New York | 0.072 | 0.075 | 0.078 | 0.082 | 0.088 | 0.092 | 0.095 | 0.098 | 0.101 | 0.104 | 0.107 | 0.110 |
| New Jersey | 0.197 | 0.193 | 0.189 | 0.183 | 0.175 | 0.170 | 0.164 | 0.159 | 0.154 | 0.150 | 0.145 | 0.141 |
| Delaware | 0.049 | 0.048 | 0.047 | 0.046 | 0.044 | 0.042 | 0.041 | 0.040 | 0.039 | 0.037 | 0.036 | 0.035 |
| Maryland | 0.109 | 0.106 | 0.104 | 0.101 | 0.096 | 0.093 | 0.090 | 0.087 | 0.085 | 0.082 | 0.080 | 0.077 |
| Virginia | 0.197 | 0.193 | 0.189 | 0.183 | 0.175 | 0.170 | 0.164 | 0.159 | 0.154 | 0.150 | 0.145 | 0.141 |
| North Carolina | 0.109 | 0.106 | 0.104 | 0.101 | 0.096 | 0.093 | 0.090 | 0.087 | 0.085 | 0.082 | 0.080 | 0.077 |



Figure 4: Allocation trajectory for all states under the parameters outlined in example 2 above. The adjustment cap is triggered in each year from 2012 through 2015 in this example. This is a retrospective analysis as if this method were in place beginning in 2004. The adjustment cap is triggered in 2012-2015 in this example.

Table 5 - Allocation trajectory for all states under the parameters outlined in example 3 above. The adjustment cap is not triggered in any year in this example. This is a retrospective analysis as if this method were in place beginning in 2004.

| State | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Maine | 0.005 | 0.005 | 0.005 | 0.005 | 0.005 | 0.005 | 0.005 | 0.005 | 0.005 |
| New Hampshire | 0.005 | 0.005 | 0.005 | 0.005 | 0.005 | 0.005 | 0.005 | 0.005 | 0.005 |
| Massachusetts | 0.128 | 0.125 | 0.122 | 0.131 | 0.143 | 0.154 | 0.171 | 0.190 | 0.200 |
| Rhode Island | 0.108 | 0.105 | 0.102 | 0.109 | 0.120 | 0.128 | 0.143 | 0.159 | 0.167 |
| Connecticut | 0.020 | 0.030 | 0.040 | 0.043 | 0.047 | 0.051 | 0.056 | 0.063 | 0.066 |
| New York | 0.081 | 0.090 | 0.100 | 0.108 | 0.118 | 0.127 | 0.141 | 0.157 | 0.164 |
| New Jersey | 0.194 | 0.194 | 0.195 | 0.197 | 0.199 | 0.201 | 0.210 | 0.213 | 0.216 |
| Delaware | 0.046 | 0.043 | 0.040 | 0.037 | 0.033 | 0.030 | 0.025 | 0.019 | 0.017 |
| Maryland | 0.105 | 0.100 | 0.098 | 0.090 | 0.081 | 0.073 | 0.061 | 0.047 | 0.041 |
| Virginia | 0.193 | 0.187 | 0.184 | 0.170 | 0.152 | 0.138 | 0.115 | 0.089 | 0.077 |
| North Carolina | 0.105 | 0.100 | 0.098 | 0.090 | 0.081 | 0.073 | 0.061 | 0.047 | 0.041 |



Figure 5: Allocation trajectory for all states under the parameters outlined in example 3 above. The adjustment cap is not triggered in any year in this example. This is a retrospective analysis as if this method were in place beginning in 2004.

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Appendix 3. Example changes in allocation distribution under various trigger and percentage approaches

| Appendix X Examples |  |  |  |
| :---: | :---: | :---: | :---: |
| Example | Option | Trigger/Percentage | Approach |
| 1-A | Trigger | 3 million | Static trigger with surplus allocated regionally and proportional to states' initial allocations |
| 1-B | Trigger | 3 million | 1-A, if one year's quota is below the trigger |
| 2 | Trigger, Three regions | 3 million | Static trigger with surplus allocated regionally and proportional to states' initial allocations with NJ as a third region |
| 3 | Trigger | 3 million | Static trigger with surplus allocated regionally and equally between states |
| 4-A | Trigger | 3 million | Dynamic trigger with surplus allocated regionally and proportional to states' base allocations |
| 4-B | Trigger | 3 million | 4-A, if one year's quota is below the trigger |
| 5 | Trigger | 3 million | Dynamic trigger with surplus allocated regionally and equally between states |
| 6 | Trigger | 4.5 million | Dynamic trigger with surplus allocated regionally and proportional to states' base allocations |
| 7-A | Trigger with Increase to CT and NY First | 3 million | Static trigger with surplus allocated regionally and proportional to states' initial allocations |
| 7-B | Trigger with Increase to CT and NY First | 3 million | 7-A, if one year's quota is below the trigger |
| 8 | Percentage | 25\% | Surplus allocated equally between states |
| 9 | Percentage | 25\% | Surplus allocated regionally and equally between the states |
| 10 | Percentage | 25\% | Surplus allocated regionally and proportional to states' initial allocations |
| 11 | Percentage | 75\% | Surplus allocated regionally and equally between the states |
| 12 | Percentage | 75\% | Surplus allocated regionally and proportional to states' initial allocations |

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## EXAMPLE 1-A

Trigger Value: 3 million pounds
Base allocations: Static
Distribution of surplus quota: Surplus quota allocated regionally according to stock distribution (84\% in the North and $16 \%$ in the South according to the 2019 stock assessment) and, within a region, allocated in proportion to initial allocations.

Regional configuration: ME-NY and NJ-NC

| Year | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ | $\mathbf{2 0 2 3}$ | $\mathbf{2 0 2 4}$ | $\mathbf{2 0 2 5}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Coastwide Quota | $5,580,000$ | $5,580,000$ | $5,000,000$ | $5,000,000$ | $4,500,000$ | $4,500,000$ |


| State | Annual \% of Quota |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ | $\mathbf{2 0 2 3}$ | $\mathbf{2 0 2 4}$ | $\mathbf{2 0 2 5}$ |
| ME | $0.5 \%$ | $0.7 \%$ | $0.6 \%$ | $0.6 \%$ | $0.6 \%$ | $0.6 \%$ |
| NH | $0.5 \%$ | $0.7 \%$ | $0.6 \%$ | $0.6 \%$ | $0.6 \%$ | $0.6 \%$ |
| MA | $13.0 \%$ | $22.5 \%$ | $21.2 \%$ | $21.2 \%$ | $19.8 \%$ | $19.8 \%$ |
| RI | $11.0 \%$ | $19.0 \%$ | $17.9 \%$ | $17.9 \%$ | $16.8 \%$ | $16.8 \%$ |
| CT | $1.0 \%$ | $1.7 \%$ | $1.6 \%$ | $1.6 \%$ | $1.5 \%$ | $1.5 \%$ |
| NY | $7.0 \%$ | $12.1 \%$ | $11.4 \%$ | $11.4 \%$ | $10.7 \%$ | $10.7 \%$ |
| NJ | $20.0 \%$ | $13.0 \%$ | $13.9 \%$ | $13.9 \%$ | $14.9 \%$ | $14.9 \%$ |
| DE | $5.0 \%$ | $3.2 \%$ | $3.5 \%$ | $3.5 \%$ | $3.7 \%$ | $3.7 \%$ |
| MD | $11.0 \%$ | $7.1 \%$ | $7.7 \%$ | $7.7 \%$ | $8.2 \%$ | $8.2 \%$ |
| VA | $20.0 \%$ | $13.0 \%$ | $13.9 \%$ | $13.9 \%$ | $14.9 \%$ | $14.9 \%$ |
| NC | $11.0 \%$ | $7.1 \%$ | $7.7 \%$ | $7.7 \%$ | $8.2 \%$ | $8.2 \%$ |
| Total | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ |
| North | $33.0 \%$ | $56.6 \%$ | $53.4 \%$ | $53.4 \%$ | $50.0 \%$ | $50.0 \%$ |
| South | $67.0 \%$ | $43.4 \%$ | $46.6 \%$ | $46.6 \%$ | $50.0 \%$ | $50.0 \%$ |



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EXAMPLE 1-B (1-A approach with one year's quota under the trigger)
Trigger Value: 3 million pounds
Base allocations: Static
Distribution of surplus quota: Surplus quota allocated regionally according to stock distribution (84\% in the North and $16 \%$ in the South according to the 2019 stock assessment) and, within a region, allocated in proportion to initial allocations.

Regional configuration: ME-NY and NJ-NC

| Year | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ | $\mathbf{2 0 2 3}$ | $\mathbf{2 0 2 4}$ | $\mathbf{2 0 2 5}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Coastwide Quota | $5,580,000$ | $5,580,000$ | $5,000,000$ | $5,000,000$ | $\mathbf{2 , 8 0 0 , 0 0 0}$ | $4,500,000$ |


| State | Annual \% of Quota |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ | $\mathbf{2 0 2 3}$ | $\mathbf{2 0 2 4}$ | $\mathbf{2 0 2 5}$ |
| ME | $0.5 \%$ | $0.7 \%$ | $0.6 \%$ | $0.6 \%$ | $0.5 \%$ | $0.6 \%$ |
| NH | $0.5 \%$ | $0.7 \%$ | $0.6 \%$ | $0.6 \%$ | $0.5 \%$ | $0.6 \%$ |
| MA | $13.0 \%$ | $22.5 \%$ | $21.2 \%$ | $21.2 \%$ | $13.0 \%$ | $19.8 \%$ |
| RI | $11.0 \%$ | $19.0 \%$ | $17.9 \%$ | $17.9 \%$ | $11.0 \%$ | $16.8 \%$ |
| CT | $1.0 \%$ | $1.7 \%$ | $1.6 \%$ | $1.6 \%$ | $1.0 \%$ | $1.5 \%$ |
| NY | $7.0 \%$ | $12.1 \%$ | $11.4 \%$ | $11.4 \%$ | $7.0 \%$ | $10.7 \%$ |
| NJ | $20.0 \%$ | $13.0 \%$ | $13.9 \%$ | $13.9 \%$ | $20.0 \%$ | $14.9 \%$ |
| DE | $5.0 \%$ | $3.2 \%$ | $3.5 \%$ | $3.5 \%$ | $5.0 \%$ | $3.7 \%$ |
| MD | $11.0 \%$ | $7.1 \%$ | $7.7 \%$ | $7.7 \%$ | $11.0 \%$ | $8.2 \%$ |
| VA | $20.0 \%$ | $13.0 \%$ | $13.9 \%$ | $13.9 \%$ | $20.0 \%$ | $14.9 \%$ |
| NC | $11.0 \%$ | $7.1 \%$ | $7.7 \%$ | $7.7 \%$ | $11.0 \%$ | $8.2 \%$ |
| Total | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ |
| North | $33.0 \%$ | $56.6 \%$ | $53.4 \%$ | $53.4 \%$ | $33.0 \%$ | $50.0 \%$ |
| South | $67.0 \%$ | $43.4 \%$ | $46.6 \%$ | $46.6 \%$ | $67.0 \%$ | $50.0 \%$ |



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## EXAMPLE 2

Trigger Value: 3 million pounds
Base allocations: Static
Distribution of surplus quota: Surplus quota allocated regionally according to stock distribution (84\% in the North and $16 \%$ in the South according to the 2019 stock assessment) and, within a region, allocated in proportion to initial allocations.

Regional configuration: ME-NY, NJ, DE-NC

| Year | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ | $\mathbf{2 0 2 3}$ | $\mathbf{2 0 2 4}$ | $\mathbf{2 0 2 5}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Coastwide Quota | $5,580,000$ | $5,580,000$ | $5,000,000$ | $5,000,000$ | $4,500,000$ | $4,500,000$ |


| State | Annual \% of Quota |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ | $\mathbf{2 0 2 3}$ | $\mathbf{2 0 2 4}$ | $\mathbf{2 0 2 5}$ |
| ME | $0.5 \%$ | $0.7 \%$ | $0.6 \%$ | $0.6 \%$ | $0.6 \%$ | $0.6 \%$ |
| NH | $0.5 \%$ | $0.7 \%$ | $0.6 \%$ | $0.6 \%$ | $0.6 \%$ | $0.6 \%$ |
| MA | $13.0 \%$ | $18.8 \%$ | $18.0 \%$ | $18.0 \%$ | $17.2 \%$ | $17.2 \%$ |
| RI | $11.0 \%$ | $15.9 \%$ | $15.2 \%$ | $15.2 \%$ | $14.5 \%$ | $14.5 \%$ |
| CT | $1.0 \%$ | $1.4 \%$ | $1.4 \%$ | $1.4 \%$ | $1.3 \%$ | $1.3 \%$ |
| NY | $7.0 \%$ | $10.1 \%$ | $9.7 \%$ | $9.7 \%$ | $9.2 \%$ | $9.2 \%$ |
| NJ | $20.0 \%$ | $21.1 \%$ | $21.0 \%$ | $21.0 \%$ | $20.8 \%$ | $20.8 \%$ |
| DE | $5.0 \%$ | $3.3 \%$ | $3.6 \%$ | $3.6 \%$ | $3.8 \%$ | $3.8 \%$ |
| MD | $11.0 \%$ | $7.3 \%$ | $7.8 \%$ | $7.8 \%$ | $8.4 \%$ | $8.4 \%$ |
| VA | $20.0 \%$ | $13.3 \%$ | $14.2 \%$ | $14.2 \%$ | $15.2 \%$ | $15.2 \%$ |
| NC | $11.0 \%$ | $7.3 \%$ | $7.8 \%$ | $7.8 \%$ | $8.4 \%$ | $8.4 \%$ |
| Total | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ |
| North | $33.0 \%$ | $47.5 \%$ | $45.6 \%$ | $45.6 \%$ | $43.5 \%$ | $43.5 \%$ |
| NJ | $20.0 \%$ | $21.1 \%$ | $21.0 \%$ | $21.0 \%$ | $20.8 \%$ | $20.8 \%$ |
| South | $47.0 \%$ | $31.4 \%$ | $33.5 \%$ | $33.5 \%$ | $35.7 \%$ | $35.7 \%$ |

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The above Figure provides a comparison of NJ's percent allocation under the 2 region configuration provided in Example 1 (blue bars) and the 3 region configuration provided in Example 2 (orange bars). All other variables are held constant between Example 1-A and Example 2.

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## EXAMPLE 3

Trigger Value: 3 million pounds
Base allocations: Static
Distribution of surplus quota: Surplus quota allocated regionally according to stock distribution (84\% in the North and $16 \%$ in the South according to the 2019 stock assessment) and, within a region, allocated equally to each state.

Regional configuration: ME-NY and NJ-NC

| Year | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ | $\mathbf{2 0 2 3}$ | $\mathbf{2 0 2 4}$ | $\mathbf{2 0 2 5}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Coastwide Quota | $5,580,000$ | $5,580,000$ | $5,000,000$ | $5,000,000$ | $4,500,000$ | $4,500,000$ |


| State | Annual \% of Quota |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ | $\mathbf{2 0 2 3}$ | $\mathbf{2 0 2 4}$ | $\mathbf{2 0 2 5}$ |
| ME | $0.5 \%$ | $0.7 \%$ | $0.6 \%$ | $0.6 \%$ | $0.6 \%$ | $0.6 \%$ |
| NH | $0.5 \%$ | $0.7 \%$ | $0.6 \%$ | $0.6 \%$ | $0.6 \%$ | $0.6 \%$ |
| MA | $13.0 \%$ | $16.5 \%$ | $16.0 \%$ | $16.0 \%$ | $15.5 \%$ | $15.5 \%$ |
| RI | $11.0 \%$ | $15.4 \%$ | $14.8 \%$ | $14.8 \%$ | $14.2 \%$ | $14.2 \%$ |
| CT | $1.0 \%$ | $10.1 \%$ | $8.8 \%$ | $8.8 \%$ | $7.5 \%$ | $7.5 \%$ |
| NY | $7.0 \%$ | $13.3 \%$ | $12.4 \%$ | $12.4 \%$ | $11.5 \%$ | $11.5 \%$ |
| NJ | $20.0 \%$ | $12.2 \%$ | $13.3 \%$ | $13.3 \%$ | $14.4 \%$ | $14.4 \%$ |
| DE | $5.0 \%$ | $4.2 \%$ | $4.3 \%$ | $4.3 \%$ | $4.4 \%$ | $4.4 \%$ |
| MD | $11.0 \%$ | $7.4 \%$ | $7.9 \%$ | $7.9 \%$ | $8.4 \%$ | $8.4 \%$ |
| VA | $20.0 \%$ | $12.2 \%$ | $13.3 \%$ | $13.3 \%$ | $14.4 \%$ | $14.4 \%$ |
| NC | $11.0 \%$ | $7.4 \%$ | $7.9 \%$ | $7.9 \%$ | $8.4 \%$ | $8.4 \%$ |
| Total | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ |
| North | $33.0 \%$ | $56.6 \%$ | $53.4 \%$ | $53.4 \%$ | $50.0 \%$ | $50.0 \%$ |
| South | $67.0 \%$ | $43.4 \%$ | $46.6 \%$ | $46.6 \%$ | $50.0 \%$ | $50.0 \%$ |



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## EXAMPLE 4-A

Trigger Value: 3 million pounds
Base allocations: Dynamic
Distribution of surplus quota: Surplus quota allocated regionally according to stock distribution (84\% in the North and $16 \%$ in the South according to the 2019 stock assessment) and, within a region, allocated in proportion to base allocations.

Regional configuration: ME-NY and NJ-NC.

| Year | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ | $\mathbf{2 0 2 3}$ | $\mathbf{2 0 2 4}$ | $\mathbf{2 0 2 5}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Coastwide Quota | $5,580,000$ | $5,580,000$ | $5,000,000$ | $5,000,000$ | $4,500,000$ | $4,500,000$ |


| State | Annual \% of Quota |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ | $\mathbf{2 0 2 3}$ | $\mathbf{2 0 2 4}$ | $\mathbf{2 0 2 5}$ |
| ME | $0.5 \%$ | $0.7 \%$ | $0.7 \%$ | $0.8 \%$ | $0.8 \%$ | $0.8 \%$ |
| NH | $0.5 \%$ | $0.7 \%$ | $0.7 \%$ | $0.8 \%$ | $0.8 \%$ | $0.8 \%$ |
| MA | $13.0 \%$ | $22.5 \%$ | $26.8 \%$ | $29.5 \%$ | $30.8 \%$ | $31.7 \%$ |
| RI | $11.0 \%$ | $19.0 \%$ | $22.7 \%$ | $24.9 \%$ | $26.1 \%$ | $26.8 \%$ |
| CT | $1.0 \%$ | $1.7 \%$ | $2.1 \%$ | $2.3 \%$ | $2.4 \%$ | $2.4 \%$ |
| NY | $7.0 \%$ | $12.1 \%$ | $14.5 \%$ | $15.9 \%$ | $16.6 \%$ | $17.1 \%$ |
| NJ | $20.0 \%$ | $13.0 \%$ | $9.7 \%$ | $7.7 \%$ | $6.7 \%$ | $6.1 \%$ |
| DE | $5.0 \%$ | $3.2 \%$ | $2.4 \%$ | $1.9 \%$ | $1.7 \%$ | $1.5 \%$ |
| MD | $11.0 \%$ | $7.1 \%$ | $5.3 \%$ | $4.2 \%$ | $3.7 \%$ | $3.3 \%$ |
| VA | $20.0 \%$ | $13.0 \%$ | $9.7 \%$ | $7.7 \%$ | $6.7 \%$ | $6.1 \%$ |
| NC | $11.0 \%$ | $7.1 \%$ | $5.3 \%$ | $4.2 \%$ | $3.7 \%$ | $3.3 \%$ |
| Total | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ |
| North | $33.0 \%$ | $56.6 \%$ | $67.5 \%$ | $74.1 \%$ | $77.4 \%$ | $79.6 \%$ |
| South | $67.0 \%$ | $43.4 \%$ | $32.5 \%$ | $25.9 \%$ | $22.6 \%$ | $20.4 \%$ |



## Draft Addendum for Public Comment

EXAMPLE 4-B (4-A approach with one year's quota under the trigger)
Trigger Value: 3 million pounds
Base allocations: Dynamic
Distribution of surplus quota: Surplus quota allocated regionally according to stock distribution (84\% in the North and $16 \%$ in the South according to the 2019 stock assessment) and, within a region, allocated in proportion to base allocations.

Regional configuration: ME-NY and NJ-NC.

| Year | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ | $\mathbf{2 0 2 3}$ | $\mathbf{2 0 2 4}$ | $\mathbf{2 0 2 5}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Coastwide Quota | $5,580,000$ | $5,580,000$ | $5,000,000$ | $5,000,000$ | $\mathbf{2 , 8 0 0 , 0 0 0}$ | $4,500,000$ |


| State | Annual \% of Quota |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ | $\mathbf{2 0 2 3}$ | $\mathbf{2 0 2 4}$ | $\mathbf{2 0 2 5}$ |
| ME | $0.5 \%$ | $0.7 \%$ | $0.7 \%$ | $0.8 \%$ | $0.8 \%$ | $0.8 \%$ |
| NH | $0.5 \%$ | $0.7 \%$ | $0.7 \%$ | $0.8 \%$ | $0.8 \%$ | $0.8 \%$ |
| MA | $13.0 \%$ | $22.5 \%$ | $26.8 \%$ | $29.5 \%$ | $29.5 \%$ | $30.8 \%$ |
| RI | $11.0 \%$ | $19.0 \%$ | $22.7 \%$ | $24.9 \%$ | $24.9 \%$ | $26.0 \%$ |
| CT | $1.0 \%$ | $1.7 \%$ | $2.1 \%$ | $2.3 \%$ | $2.3 \%$ | $2.4 \%$ |
| NY | $7.0 \%$ | $12.1 \%$ | $14.5 \%$ | $15.9 \%$ | $15.9 \%$ | $16.6 \%$ |
| NJ | $20.0 \%$ | $13.0 \%$ | $9.7 \%$ | $7.7 \%$ | $7.7 \%$ | $6.7 \%$ |
| DE | $5.0 \%$ | $3.2 \%$ | $2.4 \%$ | $1.9 \%$ | $1.9 \%$ | $1.7 \%$ |
| MD | $11.0 \%$ | $7.1 \%$ | $5.3 \%$ | $4.2 \%$ | $4.2 \%$ | $3.7 \%$ |
| VA | $20.0 \%$ | $13.0 \%$ | $9.7 \%$ | $7.7 \%$ | $7.7 \%$ | $6.7 \%$ |
| NC | $11.0 \%$ | $7.1 \%$ | $5.3 \%$ | $4.2 \%$ | $4.2 \%$ | $3.7 \%$ |
| Total | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ |
| North | $33.0 \%$ | $56.6 \%$ | $67.5 \%$ | $74.1 \%$ | $74.2 \%$ | $77.4 \%$ |
| South | $67.0 \%$ | $43.4 \%$ | $32.5 \%$ | $25.9 \%$ | $25.8 \%$ | $22.6 \%$ |



## Draft Addendum for Public Comment

## EXAMPLE 5

Trigger Value: 3 million pounds
Base allocations: Dynamic
Distribution of surplus quota: Surplus quota allocated regionally according to stock distribution (84\% in the North and $16 \%$ in the South according to the 2019 stock assessment) and, within a region, allocated equally to each state.

Regional configuration: ME-NY and NJ-NC.

| Year | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ | $\mathbf{2 0 2 3}$ | $\mathbf{2 0 2 4}$ | $\mathbf{2 0 2 5}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Coastwide Quota | $5,580,000$ | $5,580,000$ | $5,000,000$ | $5,000,000$ | $4,500,000$ | $4,500,000$ |


| State | Annual \% of Quota |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ | $\mathbf{2 0 2 3}$ | $\mathbf{2 0 2 4}$ | $\mathbf{2 0 2 5}$ |
| ME | $0.5 \%$ | $0.7 \%$ | $0.7 \%$ | $0.8 \%$ | $0.8 \%$ | $0.8 \%$ |
| NH | $0.5 \%$ | $0.7 \%$ | $0.7 \%$ | $0.8 \%$ | $0.8 \%$ | $0.8 \%$ |
| MA | $13.0 \%$ | $16.5 \%$ | $18.1 \%$ | $19.1 \%$ | $19.6 \%$ | $19.9 \%$ |
| RI | $11.0 \%$ | $15.4 \%$ | $17.5 \%$ | $18.7 \%$ | $19.3 \%$ | $19.8 \%$ |
| CT | $1.0 \%$ | $10.1 \%$ | $14.3 \%$ | $16.8 \%$ | $18.1 \%$ | $18.9 \%$ |
| NY | $7.0 \%$ | $13.3 \%$ | $16.2 \%$ | $18.0 \%$ | $18.8 \%$ | $19.4 \%$ |
| NJ | $20.0 \%$ | $12.2 \%$ | $8.6 \%$ | $6.5 \%$ | $5.4 \%$ | $4.6 \%$ |
| DE | $5.0 \%$ | $4.2 \%$ | $3.8 \%$ | $3.5 \%$ | $3.4 \%$ | $3.4 \%$ |
| MD | $11.0 \%$ | $7.4 \%$ | $5.7 \%$ | $4.7 \%$ | $4.2 \%$ | $3.9 \%$ |
| VA | $20.0 \%$ | $12.2 \%$ | $8.6 \%$ | $6.5 \%$ | $5.4 \%$ | $4.6 \%$ |
| NC | $11.0 \%$ | $7.4 \%$ | $5.7 \%$ | $4.7 \%$ | $4.2 \%$ | $3.9 \%$ |
| Total | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ |
| North | $33.0 \%$ | $56.6 \%$ | $67.5 \%$ | $74.1 \%$ | $77.4 \%$ | $79.6 \%$ |
| South | $67.0 \%$ | $43.4 \%$ | $32.5 \%$ | $25.9 \%$ | $22.6 \%$ | $20.4 \%$ |



## Draft Addendum for Public Comment

## EXAMPLE 6

Trigger Value: 4.5 million pounds
Base allocations: Dynamic
Distribution of surplus quota: Surplus quota allocated regionally according to stock distribution (84\% in the North and $16 \%$ in the South according to the 2019 stock assessment) and, within a region, allocated in proportion to base allocations.

Regional configuration: ME-NY and NJ-NC.

| Year | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ | $\mathbf{2 0 2 3}$ | $\mathbf{2 0 2 4}$ | $\mathbf{2 0 2 5}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Coastwide Quota | $5,580,000$ | $5,580,000$ | $5,000,000$ | $5,000,000$ | $4,500,000$ | $4,500,000$ |


| State | Annual \% of Quota |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ | $\mathbf{2 0 2 3}$ | $\mathbf{2 0 2 4}$ | $\mathbf{2 0 2 5}$ |
| ME | $0.5 \%$ | $0.6 \%$ | $0.6 \%$ | $0.6 \%$ | $0.6 \%$ | $0.6 \%$ |
| NH | $0.5 \%$ | $0.6 \%$ | $0.6 \%$ | $0.6 \%$ | $0.6 \%$ | $0.6 \%$ |
| MA | $13.0 \%$ | $17.0 \%$ | $18.6 \%$ | $20.1 \%$ | $20.1 \%$ | $20.1 \%$ |
| RI | $11.0 \%$ | $14.3 \%$ | $15.7 \%$ | $17.0 \%$ | $17.0 \%$ | $17.0 \%$ |
| CT | $1.0 \%$ | $1.3 \%$ | $1.4 \%$ | $1.5 \%$ | $1.5 \%$ | $1.5 \%$ |
| NY | $7.0 \%$ | $9.1 \%$ | $10.0 \%$ | $10.8 \%$ | $10.8 \%$ | $10.8 \%$ |
| NJ | $20.0 \%$ | $17.1 \%$ | $15.8 \%$ | $14.7 \%$ | $14.7 \%$ | $14.7 \%$ |
| DE | $5.0 \%$ | $4.3 \%$ | $4.0 \%$ | $3.7 \%$ | $3.7 \%$ | $3.7 \%$ |
| MD | $11.0 \%$ | $9.4 \%$ | $8.7 \%$ | $8.1 \%$ | $8.1 \%$ | $8.1 \%$ |
| VA | $20.0 \%$ | $17.1 \%$ | $15.8 \%$ | $14.7 \%$ | $14.7 \%$ | $14.7 \%$ |
| NC | $11.0 \%$ | $9.4 \%$ | $8.7 \%$ | $8.1 \%$ | $8.1 \%$ | $8.1 \%$ |
| Total | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ |
| North | $33.0 \%$ | $42.9 \%$ | $47.0 \%$ | $50.7 \%$ | $50.7 \%$ | $50.7 \%$ |
| South | $67.0 \%$ | $57.1 \%$ | $53.0 \%$ | $49.3 \%$ | $49.3 \%$ | $49.3 \%$ |



## Draft Addendum for Public Comment

EXAMPLE 7-A (Increase to Connecticut and New York Quotas First)
Trigger Value: 3 million pounds
Base allocations: Static
Distribution of surplus quota: Surplus quota first allocated to increase Connecticut to 5\%, then to increase New York to 9\%. Further surplus is allocated regionally according to stock distribution (84\% in the North and $16 \%$ in the South according to the 2019 stock assessment) and, within a region, allocated in proportion to historic allocations.

Regional configuration: ME-NY and NJ-NC

| Year | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ | $\mathbf{2 0 2 3}$ | $\mathbf{2 0 2 4}$ | $\mathbf{2 0 2 5}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Coastwide Quota | $5,580,000$ | $5,580,000$ | $5,000,000$ | $5,000,000$ | $4,500,000$ | $4,500,000$ |


| State | Annual \% of Quota |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ | $\mathbf{2 0 2 3}$ | $\mathbf{2 0 2 4}$ | $\mathbf{2 0 2 5}$ |
| ME | $0.5 \%$ | $0.6 \%$ | $0.5 \%$ | $0.6 \%$ | $0.5 \%$ | $0.5 \%$ |
| NH | $0.5 \%$ | $0.6 \%$ | $0.5 \%$ | $0.6 \%$ | $0.5 \%$ | $0.5 \%$ |
| MA | $13.0 \%$ | $19.2 \%$ | $17.8 \%$ | $18.1 \%$ | $16.9 \%$ | $16.9 \%$ |
| RI | $11.0 \%$ | $16.3 \%$ | $15.0 \%$ | $15.3 \%$ | $14.3 \%$ | $14.3 \%$ |
| CT | $1.0 \%$ | $5.9 \%$ | $5.8 \%$ | $5.8 \%$ | $5.6 \%$ | $5.6 \%$ |
| NY | $7.0 \%$ | $15.6 \%$ | $15.4 \%$ | $14.5 \%$ | $13.4 \%$ | $13.4 \%$ |
| NJ | $20.0 \%$ | $12.5 \%$ | $13.4 \%$ | $13.5 \%$ | $14.5 \%$ | $14.5 \%$ |
| DE | $5.0 \%$ | $3.1 \%$ | $3.4 \%$ | $3.4 \%$ | $3.6 \%$ | $3.6 \%$ |
| MD | $11.0 \%$ | $6.9 \%$ | $7.4 \%$ | $7.4 \%$ | $8.0 \%$ | $8.0 \%$ |
| VA | $20.0 \%$ | $12.5 \%$ | $13.4 \%$ | $13.5 \%$ | $14.5 \%$ | $14.5 \%$ |
| NC | $11.0 \%$ | $6.9 \%$ | $7.4 \%$ | $7.4 \%$ | $8.0 \%$ | $8.0 \%$ |
| Total | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ |
| North | $33.0 \%$ | $58.1 \%$ | $55.0 \%$ | $54.9 \%$ | $51.4 \%$ | $51.4 \%$ |
| South | $67.0 \%$ | $41.9 \%$ | $45.0 \%$ | $45.1 \%$ | $48.6 \%$ | $48.6 \%$ |



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EXAMPLE 7-B (7-A approach with one year's quota under the trigger)
Trigger Value: 3 million pounds
Base allocations: Static
Distribution of surplus quota: Surplus quota first allocated to increase Connecticut to $5 \%$, then to increase New York to $9 \%$. Further surplus is allocated regionally according to stock distribution ( $84 \%$ in the North and $16 \%$ in the South according to the 2019 stock assessment) and, within a region, allocated in proportion to historic allocations.

Regional configuration: ME-NY and NJ-NC

| Year | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ | $\mathbf{2 0 2 3}$ | $\mathbf{2 0 2 4}$ | $\mathbf{2 0 2 5}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Coastwide Quota | $5,580,000$ | $5,580,000$ | $5,000,000$ | $5,000,000$ | $\mathbf{2 , 8 0 0 , 0 0 0}$ | $4,500,000$ |


| State | Annual \% of Quota |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
|  | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ | $\mathbf{2 0 2 3}$ | $\mathbf{2 0 2 4}$ | $\mathbf{2 0 2 5}$ |  |
| ME | $0.5 \%$ | $0.6 \%$ | $0.5 \%$ | $0.6 \%$ | $0.5 \%$ | $0.5 \%$ |  |
| NH | $0.5 \%$ | $0.6 \%$ | $0.5 \%$ | $0.6 \%$ | $0.5 \%$ | $0.5 \%$ |  |
| MA | $13.0 \%$ | $19.2 \%$ | $17.8 \%$ | $18.1 \%$ | $13.0 \%$ | $16.9 \%$ |  |
| RI | $11.0 \%$ | $16.3 \%$ | $15.0 \%$ | $15.3 \%$ | $11.0 \%$ | $14.3 \%$ |  |
| CT | $1.0 \%$ | $5.9 \%$ | $5.8 \%$ | $5.8 \%$ | $1.0 \%$ | $5.6 \%$ |  |
| NY | $7.0 \%$ | $15.6 \%$ | $15.4 \%$ | $14.5 \%$ | $7.0 \%$ | $13.4 \%$ |  |
| NJ | $20.0 \%$ | $12.5 \%$ | $13.4 \%$ | $13.5 \%$ | $20.0 \%$ | $14.5 \%$ |  |
| DE | $5.0 \%$ | $3.1 \%$ | $3.4 \%$ | $3.4 \%$ | $5.0 \%$ | $3.6 \%$ |  |
| MD | $11.0 \%$ | $6.9 \%$ | $7.4 \%$ | $7.4 \%$ | $11.0 \%$ | $8.0 \%$ |  |
| VA | $20.0 \%$ | $12.5 \%$ | $13.4 \%$ | $13.5 \%$ | $20.0 \%$ | $14.5 \%$ |  |
| NC | $11.0 \%$ | $6.9 \%$ | $7.4 \%$ | $7.4 \%$ | $11.0 \%$ | $8.0 \%$ |  |
| Total | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ |  |
| North | $33.0 \%$ | $58.1 \%$ | $55.0 \%$ | $54.9 \%$ | $33.0 \%$ | $51.4 \%$ |  |
| South | $67.0 \%$ | $41.9 \%$ | $45.0 \%$ | $45.1 \%$ | $67.0 \%$ | $48.6 \%$ |  |



## Draft Addendum for Public Comment

## EXAMPLE 8

Base percentage: 25\%
Distribution of surplus quota: Surplus quota allocated equally to each state from Massachusetts to North Carolina.

Regional configuration: ME-NY and NJ-NC

| Year | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ | $\mathbf{2 0 2 3}$ | $\mathbf{2 0 2 4}$ | $\mathbf{2 0 2 5}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Coastwide Quota | $5,580,000$ | $5,580,000$ | $5,000,000$ | $5,000,000$ | $4,500,000$ | $4,500,000$ |


| State | Annual \% of Quota |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
|  | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ | $\mathbf{2 0 2 3}$ | $\mathbf{2 0 2 4}$ | $\mathbf{2 0 2 5}$ |  |
| ME | $0.5 \%$ | $0.9 \%$ | $0.9 \%$ | $0.9 \%$ | $0.9 \%$ | $0.9 \%$ |  |
| NH | $0.5 \%$ | $0.9 \%$ | $0.9 \%$ | $0.9 \%$ | $0.9 \%$ | $0.9 \%$ |  |
| MA | $13.0 \%$ | $11.4 \%$ | $11.4 \%$ | $11.4 \%$ | $11.4 \%$ | $11.4 \%$ |  |
| RI | $11.0 \%$ | $10.9 \%$ | $10.9 \%$ | $10.9 \%$ | $10.9 \%$ | $10.9 \%$ |  |
| CT | $1.0 \%$ | $8.4 \%$ | $8.4 \%$ | $8.4 \%$ | $8.4 \%$ | $8.4 \%$ |  |
| NY | $7.0 \%$ | $9.9 \%$ | $9.9 \%$ | $9.9 \%$ | $9.9 \%$ | $9.9 \%$ |  |
| NJ | $20.0 \%$ | $13.2 \%$ | $13.2 \%$ | $13.2 \%$ | $13.2 \%$ | $13.2 \%$ |  |
| DE | $5.0 \%$ | $9.4 \%$ | $9.4 \%$ | $9.4 \%$ | $9.4 \%$ | $9.4 \%$ |  |
| MD | $11.0 \%$ | $10.9 \%$ | $10.9 \%$ | $10.9 \%$ | $10.9 \%$ | $10.9 \%$ |  |
| VA | $20.0 \%$ | $13.2 \%$ | $13.2 \%$ | $13.2 \%$ | $13.2 \%$ | $13.2 \%$ |  |
| NC | $11.0 \%$ | $10.9 \%$ | $10.9 \%$ | $10.9 \%$ | $10.9 \%$ | $10.9 \%$ |  |
| Total | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ |  |
| North | $33.0 \%$ | $42.4 \%$ | $42.4 \%$ | $42.4 \%$ | $42.4 \%$ | $42.4 \%$ |  |
| South | $67.0 \%$ | $57.6 \%$ | $57.6 \%$ | $57.6 \%$ | $57.6 \%$ | $57.6 \%$ |  |



## Draft Addendum for Public Comment

## EXAMPLE 9

Base percentage: 25\%
Distribution of surplus quota: Surplus quota allocated regionally according to stock distribution (84\% in the North and $16 \%$ in the South according to the 2019 stock assessment) and, within a region, allocated equally to each state.

Regional configuration: ME-NY and NJ-NC

| Year | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ | $\mathbf{2 0 2 3}$ | $\mathbf{2 0 2 4}$ | $\mathbf{2 0 2 5}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Coastwide Quota | $5,580,000$ | $5,580,000$ | $5,000,000$ | $5,000,000$ | $4,500,000$ | $4,500,000$ |


| State | Annual \% of Quota |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ | $\mathbf{2 0 2 3}$ | $\mathbf{2 0 2 4}$ | $\mathbf{2 0 2 5}$ |
| ME | $0.5 \%$ | $0.8 \%$ | $0.8 \%$ | $0.8 \%$ | $0.8 \%$ | $0.8 \%$ |
| NH | $0.5 \%$ | $0.8 \%$ | $0.8 \%$ | $0.8 \%$ | $0.8 \%$ | $0.8 \%$ |
| MA | $13.0 \%$ | $18.7 \%$ | $18.7 \%$ | $18.7 \%$ | $18.7 \%$ | $18.7 \%$ |
| RI | $11.0 \%$ | $18.2 \%$ | $18.2 \%$ | $18.2 \%$ | $18.2 \%$ | $18.2 \%$ |
| CT | $1.0 \%$ | $15.7 \%$ | $15.7 \%$ | $15.7 \%$ | $15.7 \%$ | $15.7 \%$ |
| NY | $7.0 \%$ | $17.2 \%$ | $17.2 \%$ | $17.2 \%$ | $17.2 \%$ | $17.2 \%$ |
| NJ | $20.0 \%$ | $7.4 \%$ | $7.4 \%$ | $7.4 \%$ | $7.4 \%$ | $7.4 \%$ |
| DE | $5.0 \%$ | $3.7 \%$ | $3.7 \%$ | $3.7 \%$ | $3.7 \%$ | $3.7 \%$ |
| MD | $11.0 \%$ | $5.2 \%$ | $5.2 \%$ | $5.2 \%$ | $5.2 \%$ | $5.2 \%$ |
| VA | $20.0 \%$ | $7.4 \%$ | $7.4 \%$ | $7.4 \%$ | $7.4 \%$ | $7.4 \%$ |
| NC | $11.0 \%$ | $5.2 \%$ | $5.2 \%$ | $5.2 \%$ | $5.2 \%$ | $5.2 \%$ |
| Total | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ |
| North | $33.0 \%$ | $71.3 \%$ | $71.3 \%$ | $71.3 \%$ | $71.3 \%$ | $71.3 \%$ |
| South | $67.0 \%$ | $28.8 \%$ | $28.8 \%$ | $28.8 \%$ | $28.8 \%$ | $28.8 \%$ |



## Draft Addendum for Public Comment

## EXAMPLE 10

Base percentage: 25\%
Distribution of surplus quota: Surplus quota allocated regionally according to stock distribution (84\% in the North and $16 \%$ in the South according to the 2019 stock assessment) and, within a region, allocated according to initial proportions.

Regional configuration: ME-NY and NJ-NC

| Year | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ | $\mathbf{2 0 2 3}$ | $\mathbf{2 0 2 4}$ | $\mathbf{2 0 2 5}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Coastwide Quota | $5,580,000$ | $5,580,000$ | $5,000,000$ | $5,000,000$ | $4,500,000$ | $4,500,000$ |


| State | Annual \% of Quota |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ | $\mathbf{2 0 2 3}$ | $\mathbf{2 0 2 4}$ | $\mathbf{2 0 2 5}$ |
| ME | $0.5 \%$ | $0.8 \%$ | $0.8 \%$ | $0.8 \%$ | $0.8 \%$ | $0.8 \%$ |
| NH | $0.5 \%$ | $0.8 \%$ | $0.8 \%$ | $0.8 \%$ | $0.8 \%$ | $0.8 \%$ |
| MA | $13.0 \%$ | $28.3 \%$ | $28.3 \%$ | $28.3 \%$ | $28.3 \%$ | $28.3 \%$ |
| RI | $11.0 \%$ | $24.0 \%$ | $24.0 \%$ | $24.0 \%$ | $24.0 \%$ | $24.0 \%$ |
| CT | $1.0 \%$ | $2.2 \%$ | $2.2 \%$ | $2.2 \%$ | $2.2 \%$ | $2.2 \%$ |
| NY | $7.0 \%$ | $15.3 \%$ | $15.3 \%$ | $15.3 \%$ | $15.3 \%$ | $15.3 \%$ |
| NJ | $20.0 \%$ | $8.6 \%$ | $8.6 \%$ | $8.6 \%$ | $8.6 \%$ | $8.6 \%$ |
| DE | $5.0 \%$ | $2.1 \%$ | $2.1 \%$ | $2.1 \%$ | $2.1 \%$ | $2.1 \%$ |
| MD | $11.0 \%$ | $4.7 \%$ | $4.7 \%$ | $4.7 \%$ | $4.7 \%$ | $4.7 \%$ |
| VA | $20.0 \%$ | $8.6 \%$ | $8.6 \%$ | $8.6 \%$ | $8.6 \%$ | $8.6 \%$ |
| NC | $11.0 \%$ | $4.7 \%$ | $4.7 \%$ | $4.7 \%$ | $4.7 \%$ | $4.7 \%$ |
| Total | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ |
| North | $33.0 \%$ | $71.3 \%$ | $71.3 \%$ | $71.3 \%$ | $71.3 \%$ | $71.3 \%$ |
| South | $67.0 \%$ | $28.8 \%$ | $28.8 \%$ | $28.8 \%$ | $28.8 \%$ | $28.8 \%$ |



## Draft Addendum for Public Comment

## EXAMPLE 11

Base percentage: 75\%
Distribution of surplus quota: Surplus quota allocated regionally according to stock distribution (84\% in the North and $16 \%$ in the South according to the 2019 stock assessment) and, within a region, allocated equally to each state.

Regional configuration: ME-NY and NJ-NC

| Year | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ | $\mathbf{2 0 2 3}$ | $\mathbf{2 0 2 4}$ | $\mathbf{2 0 2 5}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Coastwide Quota | $5,580,000$ | $5,580,000$ | $5,000,000$ | $5,000,000$ | $4,500,000$ | $4,500,000$ |


| State | Annual \% of Quota |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ | $\mathbf{2 0 2 3}$ | $\mathbf{2 0 2 4}$ | $\mathbf{2 0 2 5}$ |
| ME | $0.5 \%$ | $0.6 \%$ | $0.6 \%$ | $0.6 \%$ | $0.6 \%$ | $0.6 \%$ |
| NH | $0.5 \%$ | $0.6 \%$ | $0.6 \%$ | $0.6 \%$ | $0.6 \%$ | $0.6 \%$ |
| MA | $13.0 \%$ | $14.9 \%$ | $14.9 \%$ | $14.9 \%$ | $14.9 \%$ | $14.9 \%$ |
| RI | $11.0 \%$ | $13.4 \%$ | $13.4 \%$ | $13.4 \%$ | $13.4 \%$ | $13.4 \%$ |
| CT | $1.0 \%$ | $5.9 \%$ | $5.9 \%$ | $5.9 \%$ | $5.9 \%$ | $5.9 \%$ |
| NY | $7.0 \%$ | $10.4 \%$ | $10.4 \%$ | $10.4 \%$ | $10.4 \%$ | $10.4 \%$ |
| NJ | $20.0 \%$ | $15.8 \%$ | $15.8 \%$ | $15.8 \%$ | $15.8 \%$ | $15.8 \%$ |
| DE | $5.0 \%$ | $4.6 \%$ | $4.6 \%$ | $4.6 \%$ | $4.6 \%$ | $4.6 \%$ |
| MD | $11.0 \%$ | $9.1 \%$ | $9.1 \%$ | $9.1 \%$ | $9.1 \%$ | $9.1 \%$ |
| VA | $20.0 \%$ | $15.8 \%$ | $15.8 \%$ | $15.8 \%$ | $15.8 \%$ | $15.8 \%$ |
| NC | $11.0 \%$ | $9.1 \%$ | $9.1 \%$ | $9.1 \%$ | $9.1 \%$ | $9.1 \%$ |
| Total | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ |
| North | $33.0 \%$ | $45.8 \%$ | $45.8 \%$ | $45.8 \%$ | $45.8 \%$ | $45.8 \%$ |
| South | $67.0 \%$ | $54.3 \%$ | $54.3 \%$ | $54.3 \%$ | $54.3 \%$ | $54.3 \%$ |



## Draft Addendum for Public Comment

## EXAMPLE 12

Base percentage: 75\%
Distribution of surplus quota: Surplus quota allocated regionally according to stock distribution (84\% in the North and $16 \%$ in the South according to the 2019 stock assessment) and, within a region, allocated according to initial proportions.

Regional configuration: ME-NY and NJ-NC

| Year | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ | $\mathbf{2 0 2 3}$ | $\mathbf{2 0 2 4}$ | $\mathbf{2 0 2 5}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Coastwide Quota | $5,580,000$ | $5,580,000$ | $5,000,000$ | $5,000,000$ | $4,500,000$ | $4,500,000$ |


| State | Annual \% of Quota |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ | $\mathbf{2 0 2 3}$ | $\mathbf{2 0 2 4}$ | $\mathbf{2 0 2 5}$ |
| ME | $0.5 \%$ | $0.6 \%$ | $0.6 \%$ | $0.6 \%$ | $0.6 \%$ | $0.6 \%$ |
| NH | $0.5 \%$ | $0.6 \%$ | $0.6 \%$ | $0.6 \%$ | $0.6 \%$ | $0.6 \%$ |
| MA | $13.0 \%$ | $18.1 \%$ | $18.1 \%$ | $18.1 \%$ | $18.1 \%$ | $18.1 \%$ |
| RI | $11.0 \%$ | $15.3 \%$ | $15.3 \%$ | $15.3 \%$ | $15.3 \%$ | $15.3 \%$ |
| CT | $1.0 \%$ | $1.4 \%$ | $1.4 \%$ | $1.4 \%$ | $1.4 \%$ | $1.4 \%$ |
| NY | $7.0 \%$ | $9.8 \%$ | $9.8 \%$ | $9.8 \%$ | $9.8 \%$ | $9.8 \%$ |
| NJ | $20.0 \%$ | $16.2 \%$ | $16.2 \%$ | $16.2 \%$ | $16.2 \%$ | $16.2 \%$ |
| DE | $5.0 \%$ | $4.0 \%$ | $4.0 \%$ | $4.0 \%$ | $4.0 \%$ | $4.0 \%$ |
| MD | $11.0 \%$ | $8.9 \%$ | $8.9 \%$ | $8.9 \%$ | $8.9 \%$ | $8.9 \%$ |
| VA | $20.0 \%$ | $16.2 \%$ | $16.2 \%$ | $16.2 \%$ | $16.2 \%$ | $16.2 \%$ |
| NC | $11.0 \%$ | $8.9 \%$ | $8.9 \%$ | $8.9 \%$ | $8.9 \%$ | $8.9 \%$ |
| Total | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ |
| North | $33.0 \%$ | $45.8 \%$ | $45.8 \%$ | $45.8 \%$ | $45.8 \%$ | $45.8 \%$ |
| South | $67.0 \%$ | $54.3 \%$ | $54.3 \%$ | $54.3 \%$ | $54.3 \%$ | $54.3 \%$ |



MID-ATLANTIC

# MEMORANDUM 

Date: $\quad$ December 1, 2020
To: Chris Moore, Executive Director
From: Julia Beaty, staff
Subject: Council Staff Recommendation for Black Sea Bass Commercial Allocation Amendment and Draft Addendum XXXIII

During their joint meeting on December 16, 2020 the Mid-Atlantic Fishery Management Council (Council) and the Atlantic States Marine Fisheries Commission’s Summer Flounder, Scup, and Black Sea Bass Management Board (Board) will meet to take final action on the Black Sea Bass Commercial State Allocation Amendment/Draft Addendum XXXIII after considering public comments, Advisory Panel input, and the Council staff recommendation.
This memo summarizes the Council staff recommendation for preferred alternatives.
Note that for ease of identification of the alternatives, a prefix of 1,2 , or 3 was added to indicate the alternative group as described in the public hearing document and Draft Addendum XXXIII. A prefix of 1 indicates an alternative associated with the state allocation percentages. A prefix of 2 indicates alternatives related to adding the state allocations to the Council’s Fishery Management Plan (FMP). A prefix of 3 indicates alternatives associated with federal in-season closures.

## Council Staff Recommendation for State Allocation Percentages

Council staff recommend the following combination of alternatives for modification of the commercial state allocation percentages. These alternatives are described in more detail below.

- Alternative 1B: Increase Connecticut's allocation from $1 \%$ to $5 \%$ (see details below).
- Alternative 1F: Percentage of coastwide quota distributed based on initial allocations
o Sub-Alternative 1F1-B: Allocate $75 \%$ of the coastwide quota based on the initial allocations (after first accounting for Connecticut's increase to 5\%).
o Sub-Alternative 1F2-B: Allocate the remaining $25 \%$ based on the most recent regional biomass distribution information from the stock assessment.
o Sub-Alternative 1F3-B: Further divide the regional allocation among states within a region in proportion to the initial allocations to the states, except that Maine and New Hampshire would each receive 1\% of the northern region quota. The initial allocations would account for the increase in Connecticut's allocation to $5 \%$.
- Sub-Alternative 1G1: Define the regions as: 1) Maine through New York and 2) New Jersey through North Carolina.

If this combination of alternatives is approved, the following steps would be followed to determine the state allocations in a given year. As $25 \%$ of the quota would always be distributed based on the most recent stock assessment information, the resulting percentage allocations would vary each time updated stock assessment information is available. These modifications would be made through the specifications process.

Step 1: Increase Connecticut's allocation from 1\% to 5\% (i.e., alternative 1-B). This would be achieved using the following approach:

- Leave New York and Delaware’s allocations unchanged (for this step).
- Move $0.25 \%$ from Maine and $0.25 \%$ from New Hampshire to Connecticut.
- Move some allocation from Massachusetts (0.53\%), Rhode Island (0.45\%), New Jersey ( $0.81 \%$ ), Maryland ( $0.45 \%$ ), Virginia ( $0.81 \%$ ), and North Carolina ( $0.45 \%$ ) to Connecticut. The amount moved from each state is proportional to that state's current allocation percentages.
This results in the "initial" allocations shown in Table 1.
Step 2: Allocate $75 \%$ of the annual coastwide quota according to the initial allocations (i.e., Subalternative F1-B).

Step 3: For the remaining 25\%, first divide it between the northern region (Maine through New York) and the southern region (New Jersey through North Carolina) based on the most recent regional biomass distribution information from the stock assessment (sub-alternatives F2-B and G1). This division would vary each time updated stock assessment information is available.

For example, the 2019 Operational Stock Assessment estimated that 84\% of the spawning stock biomass in 2018 was present in the northern region and $16 \%$ in the southern region, after accounting for a retrospective pattern adjustment. This would result in $21 \%$ of the total quota (i.e., $84 \%$ of $25 \%$ ) being allocated to the northern states and $4 \%$ (i.e., $16 \%$ of $25 \%$ ) to the southern states to account for recent biomass distribution.

Step 4: Within a region, further divide the regional allocation defined in step 3 among states in proportion to the initial allocations, except that Maine and New Hampshire would each receive $1 \%$ of the northern region quota (i.e., sub-alternative F3-B). As previously stated, the initial allocations would account for the increase in Connecticut's allocation to $5 \%$.

Final resulting allocations: The $25 \%$ of the total quota that is allocated based on regional biomass distribution would change each time updated stock assessment information is available; therefore, the final resulting state allocations would also change on a regular basis. These changes would be made through the specifications process. Table 1 shows an example of the final resulting state allocations under the current biomass distribution (i.e., $84 \%$ north and $16 \%$ south, after applying a retrospective pattern adjustment, according to the 2019 Operational Stock Assessment).

Rationale for Council staff recommendation for state quota allocation percentages: The allocation approach described above seeks to better align the allocations with current stock distribution while accounting for the historical dependence of the states on the commercial black sea bass fishery. For example, under the current biomass distribution, no state would lose more than $4.5 \%$ and no state except Connecticut would gain more than $3.7 \%$ of the total quota. This approach also seeks to address the unique position of Connecticut, which, like many states, has seen a notable increase in availability of black sea bass, but is especially constrained by their
current $1 \%$ allocation. This approach also allows the allocations to change in response to future distribution changes, helping to ensure that they continue to ensure fair access to the fishery.

Table 1: Resulting state allocation percentages under Council staff recommendation and 2018 biomass distribution information.

| State | Current <br> allocations | "Initial allocations" <br> (CT to 5\% first) | Revised <br> allocations under <br> 2018 biomass <br> distribution | Difference <br> between current <br> and revised <br> allocations |
| :---: | :---: | :---: | :---: | :---: |
| ME | $0.50 \%$ | $0.25 \%$ | $0.40 \%$ | $-0.10 \%$ |
| NH | $0.50 \%$ | $0.25 \%$ | $0.40 \%$ | $-0.10 \%$ |
| MA | $13.00 \%$ | $12.47 \%$ | $16.68 \%$ | $+3.68 \%$ |
| RI | $11.00 \%$ | $10.55 \%$ | $14.11 \%$ | $+3.11 \%$ |
| CT | $1.00 \%$ | $5.00 \%$ | $6.69 \%$ | $+5.69 \%$ |
| NY | $7.00 \%$ | $7.00 \%$ | $9.36 \%$ | $+2.36 \%$ |
| NJ | $20.00 \%$ | $19.19 \%$ | $15.59 \%$ | $-4.41 \%$ |
| DE | $5.00 \%$ | $5.00 \%$ | $4.05 \%$ | $-0.95 \%$ |
| MD | $11.00 \%$ | $10.55 \%$ | $8.57 \%$ | $-2.43 \%$ |
| VA | $20.00 \%$ | $19.19 \%$ | $15.59 \%$ | $-4.41 \%$ |
| NC | $11.00 \%$ | $10.55 \%$ | $8.57 \%$ | $-2.43 \%$ |
| Total | $100.00 \%$ | $100.00 \%$ | $100.00 \%$ | $0.00 \%$ |
| Total percentage moved from NJ-NC to $\mathbf{~ M E - N Y ~ u n d e r ~ 2 0 1 8 ~ b i o m a s s ~}$ | $14.64 \%$ |  |  |  |
| distribution. |  |  |  |  |

## Council Staff Recommendation for Federal Management of Quota

Council staff recommend the following as preferred alternatives regarding federal management of the commercial black sea bass quota.

- Alternative 2B: Add the commercial state allocations to the Council's FMP.
- Sub-Alternative 2B1: States only pay back overages if the coastwide quota is exceeded (current practice for black sea bass under the Commission's FMP).
- Alternative 3A: Coastwide federal in-season closure when landings are projected to meet the coastwide quota (no change from current practice).

Rationale for Council staff recommendation for federal management of quota: Council staff recommend that the state allocations be added to the Council's FMP to ensure that both the Council and Board jointly decide on any future changes to the state allocations. The state allocations are an important component of management of the commercial black sea bass fishery and should be managed jointly, as is done for summer flounder and bluefish.

A notable amount of commercial black sea bass harvest comes from federal waters. For example, during 2010-2019, an average of $64 \%$ of commercial black sea bass landings from Maine through North Carolina came from federal waters and $17 \%$ from state waters. The remaining $18 \%$ of landings is categorized as "unknown" (source: NEFSC dealer data, i.e., "AA tables," which include landings from state and federal fisheries).

As noted in the public hearing document and Draft Addendum XXXIII, adding the state allocations to the Council's FMP would require transfers of quota among states to be managed by the National Marine Fisheries Service (NMFS), rather than the Commission. This would
place some additional restrictions on transfers that occur in the last two weeks of the year. Specifically, transfers after December 16 would be limited to unforeseen circumstances such as bad weather, mechanical failure, or an injury onboard. Transfers to avoid state-level overages and closures could not occur after December 16 if transfers are managed by NMFS. This should not represent a major impact as states should be closely monitoring their landings and taking action throughout the year as necessary to ensure that their quotas are not met before the end of the year, regardless of which agency manages transfers. In addition, the Council staff recommendation for no change to the current requirement for states to pay back overages only if the coastwide quota is exceeded (i.e., sub-alternative 2B1) should help mitigate the need for late in the year transfers to account for minor state-level overages.

Council staff recommend no change to the current regulations requiring a federal in-season closure when the coastwide quota is projected to be fully landed (i.e., alternative 3A). To date, a federal in-season closure of the commercial black sea bass fishery has not been triggered. Therefore, there does not appear to be a need to change these regulations to reduce the likelihood of federal in-season closures. Compared to the other alternatives for federal in-season closures, this alternative is the least likely to result in a coastwide quota overage. Therefore, it is also the least likely to result in states needing to pay back state-level overages. As previously stated, under all alternatives, states should continue to closely monitor their landings and take action as needed to prevent state-level overages, which will in turn reduce the likelihood of a coastwide quota overage, a federal in-season closure, and future paybacks of state-level overages.

## MEMORANDUM

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

FROM: Caitlin Starks, ASMFC FMP Coordinator; Savannah Lewis, ASMFC FMP Coordinator; Julia Beaty, MAFMC Staff

DATE: November 18, 2020

## SUBJECT: Public Comment on Black Sea Bass Draft Addendum XXXIII

The following pages represent a summary of all comments received by ASMFC and the Mid-Atlantic Fishery Management Council (Council) on Black Sea Bass Draft Addendum XXXIII and the Council Amendment on black sea bass commercial allocation as of 5:00 PM (EST) on November 13, 2020 (closing deadline). Comment totals for the Addendum and Amendment are provided in the tables below, followed by summaries of the state public hearings, and letters sent by organizations and individuals. Please note a summary was not provided for the Virginia, Rhode Island, and Massachusetts public hearings as no public comment was given. Additional comments were submitted and are summarized below and included in the attached comments and public hearing summaries.

A total of 17 written comments were received on Draft Addendum XXXIII and the Council Amendment from individuals and organizations. Four organizations and 13 individual stakeholders and members of the commercial fishing industry submitted comments on the Addendum and Amendment.

Seven public hearings were held via webinar for individual or multiple states: Massachusetts, Rhode Island, Connecticut and New York, New Jersey, Delaware and Maryland, Virginia and North Carolina. 62 individuals are estimated to have attended the hearings, and an estimated 13 of these individuals provided comments pertaining to Draft Addendum XXXIII and the Council Amendment.

The following tables (pages 2-5) are provided to give the Board an overview of the support for specific management options contained in Draft Addendum XXXIII and the Council Amendment. The counts for each state were tallied based on the state an individual identified as being from rather than the webinar the individual attended. This was done because of some combined state webinars and the ability of participants to attend webinars for different states.

Public Comment Summary Tables: Draft Addendum XXXIII and Council Amendment

| Allocation Approaches |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Option A | Option B | Option C | Option D | Option E | Option F |
| Written Comments | Status Quo | CT 5\% | DARA | Trigger | CT NY Trigger | Percentage |
| Individual | 9 | 1 |  | 1 | 1 |  |
| Organization |  |  | 1 |  |  |  |
| Form Letter |  |  |  |  |  |  |
| Public Hearings |  |  |  |  |  |  |
| MA |  |  |  |  |  |  |
| RI |  |  |  |  |  |  |
| CT |  | 7 |  |  |  |  |
| NY |  |  |  |  |  |  |
| NJ | 1 |  |  |  |  |  |
| DE | 2 |  |  |  |  |  |
| MD |  |  |  |  |  |  |
| VA | 1 |  |  |  |  |  |
| NC | 1 |  |  |  |  |  |
| Total | 14 | 8 | 1 | 1 | 1 | 0 |


| C. DARA Sub-options |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Final Weights |  | \% change per adjustment |  | Frequency of adjustments |  | Regional allocation adjustment cap |  |  |
| Written Comments | C1-A | C1-B | C2-A | C2-B | C3-A | C3-B | C4-A | C4-B | C4-C |
| Individual |  |  |  |  |  |  |  |  |  |
| Organization | 1 |  | 1 |  |  | 1 |  |  |  |
| Form Letter |  |  |  |  |  |  |  |  |  |
| Public Hearings |  |  |  |  |  |  |  |  |  |
| MA |  |  |  |  |  |  |  |  |  |
| RI |  |  |  |  |  |  |  |  |  |
| CT | 1 |  | 1 |  | 1 |  |  |  |  |
| NY |  |  |  |  |  |  |  |  |  |
| NJ |  |  |  |  |  |  |  |  |  |
| DE |  |  |  |  |  |  |  |  |  |
| MD |  |  |  |  |  |  |  |  |  |
| VA |  |  |  |  |  |  |  |  |  |
| NC |  |  |  |  |  |  |  |  |  |
| Total | 2 | 0 | 2 | 0 | 1 | 1 | 0 | 0 | 0 |


| D. Trigger Approach Sub-options |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Trigger Value |  | Surplus Distribution |  | Regional Distribution |  | Static/Dynamic Base Allocations |  |
| Written Comments | D1-A | D1-B | D2-A | D2-B | D3-A | D3-B | D4-A | D4-B |
| Individual |  | 1 |  | 1 | 2 |  |  |  |
| Organization |  |  |  |  |  |  |  |  |
| Form Letter |  |  |  |  |  |  |  |  |
| Public Hearings |  |  |  |  |  |  |  |  |
| MA |  |  |  |  |  |  |  |  |
| RI |  |  |  |  |  |  |  |  |
| CT |  | 1 |  |  |  |  |  |  |
| NY |  |  |  |  |  |  |  |  |
| NJ |  |  |  |  |  |  |  |  |
| DE |  |  |  |  |  |  |  |  |
| MD |  |  |  |  |  |  |  |  |
| VA |  |  |  |  |  |  |  |  |
| NC |  |  |  |  |  |  |  |  |
| Total | 0 | 2 | 0 | 1 | 2 | 0 | 0 | 0 |


| F. Percentage Approach Sub-options |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percentage initial |  | Remaining \% distribution |  | Regional distribution |  |
| Written Comments | F1-A | F1-B | F2-A | F2-B | F3-A | F3-B |
| Individual |  |  |  |  |  |  |
| Organization |  |  |  |  |  |  |
| Form Letter |  |  |  |  |  |  |
| Public Hearings |  |  |  |  |  |  |
| MA |  |  |  |  |  |  |
| RI |  |  |  |  |  |  |
| CT |  |  |  |  |  |  |
| NY |  |  |  |  |  |  |
| NJ |  |  |  |  |  |  |
| DE |  |  |  |  |  |  |
| MD |  |  |  |  |  |  |
| VA |  |  |  |  |  |  |
| NC |  |  |  |  |  |  |
| Total | 0 | 0 | 0 | 0 | 0 | 0 |


| G. Regional Configuration |  |  |
| :---: | :---: | :---: |
|  | Option G1 | Option G2 |
| Written Comments | $\mathbf{2}$ regions | $\mathbf{3}$ regions |
| Individual | 1 |  |
| Organization |  | 1 |
| Form Letter |  |  |
| Public Hearings |  |  |
| MA |  |  |
| RI |  |  |
| CT |  |  |
| NY |  |  |
| NJ |  |  |
| DE |  |  |
| MD |  |  |
| VA |  |  |
| NC |  |  |
| Total | 1 |  |


| 3.2 Federal Management Options |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Commission Only vs Council \& Commission Management |  | Sub-options: Paybacks under Council FMP |  |
|  | Option A | Option B | Option B1 | Option B2 |
| Written Comments | Status Quo | Council \& Commission | Status quo | Always |
| Individual | 1 | 3 | 1 | 1 |
| Organization | 4 | 1 | 1 |  |
| Form Letter |  |  |  |  |
| Public Hearings |  |  |  |  |
| MA |  |  |  |  |
| RI |  |  |  |  |
| CT | 1 |  |  |  |
| NY |  |  |  |  |
| NJ |  |  |  |  |
| DE |  |  |  |  |
| MD |  |  |  |  |
| VA |  |  |  |  |
| NC |  |  |  | 1 |
| Total | 6 | 4 | 2 | 2 |


| 3.2.2 Federal In-season Closures <br> Option B |  |  |  |
| :---: | :---: | :---: | :---: |
| Written Comments | Status Quo | Quota + 5\% | ACL |
| Individual | 2 |  |  |
| Organization |  |  |  |
| Form Letter |  |  |  |
| Public Hearings |  |  |  |
| MA |  |  |  |
| RI |  |  |  |
| CT |  |  |  |
| NY |  |  |  |
| NJ |  |  |  |
| DE |  |  |  |
| MD |  |  |  |
| VA |  |  |  |
| NC |  |  |  |
| Total | 2 |  |  |

## Additional Comments:

The majority of individuals that commented were frustrated with the complexity of the document, and were concerned that they were not able to provide better comments. One specific comment was that the options were too complicated to even consider, and that they involve counting and redistributing fish with no consideration for peoples' livelihoods. Most of the individuals that expressed frustrations also supported status quo.

Fourteen individuals endorsed status quo because of fears of overfishing and undercounting of fish, because the quota is still being caught in states that would lose quota, and based on the rationale that the biomass has not shifted north but rather expanded. There was also concern about commercial quota being moved to states that allow for recreational industry participants to buy state license authorizations to sell black sea bass.

One individual from New Jersey expressed that they would like to keep status quo because all of the other options steal quota from New Jersey. They stated that in the past New Jersey gave away a portion of its allocation to other states that requested it, even with a strong commercial fishery. This was done without the input of the commercial fishery, and the industry does not want to give up any more.

A few individuals were concerned about the timing of this addendum, and expressed that this is not the year to change things. They prefer to maintain status quo until economic impacts for commercial fisherman can be discussed.

Some individuals and the Atlantic Offshore Lobstermen's Association support revising state-based allocations due to unnecessary discard driven by a distribution shift and small quotas. Black sea bass are often bycatch in lobster pots, and the commercial industry would rather land them than throw them back.

Four participants indicated that the MAFMC should have more of a role in managing quotas than they currently do, while six individuals wanted only ASMFC to play a role in managing quota. Support for more MAFMC involvement comes from the thought that the majority of black sea bass landings come from federal waters, so it should be under federal oversight. Support for ASMFC was mainly because of the flexibility of management and concern about increased complexity under federal administration.

The Town Dock, based in Rhode Island, supports option C, the DARA approach, because it is flexible and shifts the quota to where the fish are. It is also based on science and is fair and equitable. However, one individual expressed strong opposition to the DARA approach, citing that is too overcomplicated and political.

Eight participants from Connecticut supported the increase to Connecticut quota. They supported this option based on increases in the amount of fish they are seeing, but they do not have the quota to land the fish. One individual mentioned seeing 10 times as many fish as he did 30 years ago, and another mentioned he had not seen so many fish in his life. A few others supported the increase because of the increased habitat and prey provided by the offshore wind farms. Another individual from Connecticut did not support the DARA approach because of a hesitation to change base allocations. He expressed support for the trigger approach because it could benefit low quota states without destabilizing norms.

Two commercial fishery participants from the southern region indicated the importance of the black sea bass fishery to themselves and their region. They say that it is one of the few fish that can be landed year round, and is often bycatch for other species. For example, in Maryland the black sea bass fishery supports commercial fisherman and local fish houses.

## General Comments on Fishery Management:

One public comment suggested dramatically reducing the overall commercial harvest.
A few participants commented on the financial impact of ITQs on the rest of the fishery. With no landing limits, several ITQ permit holders land tens of thousands of pounds in a single day, flooding the markets. This disrupts the market and reduces the price for non-ITQ states.

One individual provided several comments on the SAW/SARC process, including considerations for essential fish habitat, human environmental stressors on habitat, climate change, shifts in the food chain, and socioeconomic considerations for black sea bass.

The East Hampton Fisheries Advisory Committee commented that they want more information on how historical allocations were made in states, and were unable to endorse any option because of this. They hope that any plan selected does allow for the East Hampton harvesters to maintain if not expand the fishery.

One individual wants to know if northern states will be giving back their commercial permits to southern states, because the historic landings for northern states can be directly traced back to southern boats.

One individual brought up the idea of a quota bank, where states that do not harvest their full quota can put unused quota into a bank. States would be able to pull from this bank the following year if they needed additional quota.

# Addendum XXXIII Public Hearings 

Virginia Webinar Hearing
October 8, 2020
1 Public Participant
Public: Sara Gibbs (Undergraduate - Northeastern)
Commissioners/Council Members: Chris Batsavage (NC), Pat Geer (VA), Michelle Duval (MAFMC)
Staff: Caitlin Starks (ASMFC), Savannah Lewis (ASMFC), Alexa Kretsch (VA), Alan Bianchi (NC), Jill Ramsey (VA), Shanna Madsen (VA), Julia Beaty (MAFMC)

Only state and federal agency staff, commissioners and council members, and one undergraduate student attended. No comments were given.

# Addendum XXXIII Public Hearings 

## North Carolina Webinar Hearing

October 13, 2020
4 Public Participants

Public: Peter Consiglio, Harry Doernte (VA), Mark Hodges (VA), Julie Evans (NY)
Commissioners/Council Members: Chris Batsavage (NCDNR), Pat Geer (VMRC), Sonny Gwin (MAFMC), Tony DeLernia (MAFMC), Dewey Hemilright (MAFMC)
Staff: Caitlin Starks (ASMFC), Savannah Lewis (ASMFC), Alexa Kretsch (VMRC), Alan Bianchi (NCDNR), Michelle Duval (MAFMC), Julia Beaty (MAFMC), Meredith Whitten (NCDNR), Shanna Madsen (VMRC), Brandi Salmon (NCDNR), Lorena de la Garza (NCDNR)

Four members of the public were on the webinar hearing. There were few comments and questions, mostly coming from a member of the public and advisors for the MAFMC. All active participants expressed concern over the complexity of the document. One member of the public and one advisor supported status quo for the commercial fishery because of the importance of the black sea bass fishery to the region.

## Public Comment Summary

## Mark Hodges (Commercial fishery participant, VA)

- Supports status quo because they believe that the stock has only expanded and not shifted north because they have reported more fish this fall than in prior years.
- Believes that the northern states are taking commercial quota and then turning it into recreational quota.
- Worried about more quota going to states that have lower trip limit fisheries.
- Voiced support for B2, saying that states should payback overages no matter what. Believes that when states go over quota it hurts the market for the other states.
- Expressed concern about the complexity of the document.


## Dewey Hemilright

- Voiced concerns over the complexity of the document, and that participants need additional time to review options and provide comments. Concerned that the document may be too complicated for fishermen.


## Sonny Gwin (Commercial fishery participant, MD and DE)

- Noted that the black sea bass is probably one of the most important commercial fisheries in federal waters, and it is the only fish landed year round, 12 months out of the year.
- Indicated that webinar's do not feel the same as in person, and that information is not as readily absorbed.

Addendum XXXIII Public Hearings<br>Maryland and Delaware Webinar Hearing<br>October 14, 2020<br>2 Public Participants

Public: Wes Townsend (DE), James Fletcher (NC)
Commissioners/Council Members: Mike Luisi (MD), John Clark (DE), Sonny Gwin (MAFMC), Michelle Duval (MAFMC)
Staff: Caitlin Starks (ASMFC), Savannah Lewis (ASMFC), Steve Doctor (MD), Jason Boucher (DE), Erik Zlokovitz (MD), Alan Bianchi (NC), Angel Willey (MD)

Two members of the public participated. There were a few questions clarifying the DARA approach, but the participants expressed concerns over the impact removing quota from Maryland and Delaware would have on the commercial fisheries there.

## Public Comments

## Wes Townsend (commercial industry participant, DE \& MD):

- Taking quota away from Maryland and Delaware would create hardships for the fishery.
- Wanted to know why the historical allocations looked so low with the DARA approach, and had specific questions about Option C1-C and Option D. Concerned that DARA didn't credit the historical fishery enough.
- Expressed support for Option A, Status Quo, because black sea bass is the biggest fishery Delaware and Maryland have and the commercial industry is still catching their quotas.
James Fletcher (representing the United National Fisherman's Association, NC):
- Disagreed with the heavy use of acronyms.
- Wanted to know if the northern states would be giving the southern states back their quota and permits. He thinks they should at no cost to southern boats. Historic landings for northern states can be traced back to southern boats.
- Expressed concerns over the NMFS survey, that it doesn't sample a key location of rocks 50 fathoms north of Norfolk Canyon.
- Wants to know what NMFS doesn't require electronic reporting of black sea bass in the EEZ.
- Expressed support for Option A, Status Quo, on behalf of himself and the United National Fishermen's Association.
- Recommended that if the council or ASMFC does anything to change the quota and move it north, then commercial trawlers that lost permits due to the cuts in quota have a chance to get them back. Many of the boats in their region had given up their permits because they could no longer afford them due to the expense of the permits and too low of a quota to make enough money.

Addendum XXXIII Public Hearings<br>Connecticut and New York Webinar Hearing<br>October 15, 2020<br>12 Public Participants

Public: Daniel Malone (CT), Gary Yerman (CT), Joesph Gilbert (CT), Robert Smith (CT), Roy Miller, Sid Holbrook (CT), Michael Plaia (CT), Joel Lizza (CT \& NY), Peter Consiglio (CT), DJ King (CT \& NY), Julie Evens (NY)
Commissioners/Council Members: Tony DiLernia (MAFMC), Wes Townsend (MAFMC), Emerson Hasbrouck (ASMFC), Dan Farnham (MAFMC), Michelle Duval (MAFMC), Maureen Davidson (NY), Justin Davis (CT)
Staff: Caitlin Starks (ASMFC), Savannah Lewis (ASMFC), Colleen Bouffard (CT), John Maniscalco (NY), Matthew Gates (CT), Renee St. Amand (CT), Alan Bianchi (NC), Greg Wojicik (CT)

Comments were made by 11 participants. The overall consensus was the more black sea bass are being seen now than ever, and Connecticut needs more quota. Participants agreed that the biomass was expanding into the northern waters, and that the fish are established. Some members mentioned that they want ASMFC to have full control over black sea bass.

## Comments Related to State Allocation Options

## Michael Plaia (Advisor from Connecticut):

- Thinks that the Council should stay out of the process because it makes it too unwieldy. ASMFC should have sole decision making power.
- Has not seen this many sea bass ever. It's not a migration, but they are breeding in the canyons offshore and are now native fish. It is an expanding biomasss, and ASMFC needs to recognize that.


## Peter Consiglio (Commercial trap fishery participant, Connecticut):

- The water temperatures in July and August are a booming time to catch black sea bass. They need higher quotas in the spring and summer time because they are doing more damage throwing fish overboard than landing them.
- Over the years, there has been a rise in juvenile black sea bass and now they are seeing marketable fish. Now they are breeding


## Robert Smith (Commercial fishery participant, Connecticut):

- Supports an increase quota for Connecticut, and thinks that there should be individual triggers for recreational and commercial quotas.


## Joel Lizza (Commercial fishery participant, Connecticut and New York):

- 30 years ago, he didn't see black sea bass in New York, but now he can catch hundreds of pounds in a day. Fish are showing up mid sound in Gilford, both in New York and Connecticut waters. Late May to early July, they are seeing more and more bass each year until mid-August. This year they have seen $10 x$ more than they used to see. Concerned about the increase in black sea bass predation on lobster.


## Sid Holbrook (Commercial fishery participant, Connecticut):

- Support for Connecticut to get at least 5\%, if not more. Also expressed support for Options C1-A, C2-A, C3-A, and D1-B.
- Supports yearly increases and the tie between assessments. Also expressed concern of predation on lobsters by black sea bass.


## DJ King (Commercial fishery participant, Connecticut and New York):

- Temperature shifts have increased the amount of black sea bass than historically landed, and we need an increase in allocation, at least double what is available now. There isn't a lot of quota available to catch, and they need to make it a target fishery like the southern states.


## Joesph Gilbert (Commercial fishery participant, Connecticut):

- Supports giving Connecticut more quota, along with New York. Historical landings have biased the system, and he would like to land fish in his state instead of other states.
- Wants to take unused quota to benefit other states.
- Windfarms are creating more habitat for black sea bass and their prey, and it will bring more fish their way.


## Tony DiLernia (Advisor, New York):

- Document was difficult to get through.
- Question about whether the stock was shifting north or the range was expanding.
- Thinks that the level of black sea bass has leveled off south of Hudson Canyon but isn't decreasing.
- Participated in an offshore wind seminar that found black sea bass were eating crabs found on the windfarms rather than lobsters.


## Julie Evans (Representative of the East Hampton Fishery Advisory Committee):

- Wanted to know why states that had historically overfished their quotas were getting other states allocations, specifically the New Jersey allocation. New Jersey had to borrow from other states.
- If one state goes over, will other states be impacted?
- Plans on providing written comment


## Daniel Malone (Commercial fishery participant, Connecticut):

- Agrees with several comments, and will spend more time reading the document before providing written comment.
- Would like to see the quota adjusted every year
- Does not want NOAA involved in any way because they take too long to get anything done, and he likes the state flexibilities.
- Has also seen the increases in black sea bass, and would be happy with $5 \%$ but doesn't think that is enough for Connecticut. Thinks it should be up near $11 \%$ or $12 \%$.


## Gary Yerman (Commercial fishery participant, Connecticut):

- Believes that a minimum of $5 \%$ is on the small side, and it should be more like $10 \%$.
- If they have all of the black sea bass and other states aren't catching all of their quota, then why can't we have a quota bank that states can borrow from? States aren't utilizing their quota, so it should carry over is not used and go into that quota bank.


# Addendum XXXIII Public Hearings <br> New Jersey Webinar Hearing 

October 27, 2020
7 Public Participants

Public: Scot Mackey (NJ), Jeff Kaelin (NJ), Mike Plaia, Carl Howard (NJ), Greg DiDomenico (NJ), James Lovgren (NJ), Michael Monteforte (NJ)

Commissioners/Council Members: Joe Cimino (NJ), Anthony DiLernia (MAFMC), Adam Nowalsky (Council/ASMFC), Dan Farnham (MAFMC), Michelle Duval (MAFMC), Peter Clarke (MAFMC), Nichola Meserve (Commission),

Staff: Caitlin Starks (ASMFC), Savannah Lewis (ASMFC), Chad Power (NJ), Heather Corbett (NJ), Jeffrey Brust (NJ), Joshua O’Connor (NOAA), Mike Celestino (NJ), Alan Bianchi (NMFS)

Seven members the public attended the hearing. Five attendees said the document was complex, and they would be providing written comment after taking more time to review. Four participants had questions about stock distribution, focusing on whether the stock had shifted or was expanding. Participants also asked for more examples of state quotas under different scenarios. One participant provided comment, below.

## Public Comment Summary <br> James Lovgren (Commercial fishery participant, NJ):

- Supported Option A, Status Quo, but recognized that probably will not happen.
- Strongly opposed to Option C, DARA Approach, because it is overcomplicated and political.
- The main issue from the New Jersey standpoint is that New Jersey should not take any cuts to their allocation. New Jersey had previously given up 10-18\% of the quota to other states in the original amendment, and they should not lose anymore.
- Would like more involvement of the MAFMC because the large majority of black sea bass are caught in federal waters.
- Supported Sub-option G2, for New Jersey as a separate region, because the biomass is centered off New Jersey.
- Claimed that most fish landed in southern states are actually caught in the waters off of New Jersey to Rhode Island, and asked for the Council and Commission to look at where the boats are harvesting fish compared to where they land the fish.
- Expressed dislike of ITQ fishery systems, and suggested that the Council and Commission move quota to active fisheries instead of inactive ITQ fisheries with latent quota.
- Wanted to know where the majority of black sea bass were actually being caught and what states the boats were landing in.


# Addendum XXXIII Public Hearings 

Rhode Island Webinar Hearing
October 28, 2020
5 Public Participants
Public: Christopher Sarro, Kate Almeida, Michael Monteforte, Roy Barlow, Thomas Heimann Commissioners/Council Members: Eric Reid (RI), Dan Farnham (MAFMC), Michelle Duval (MAFMC), Staff: Caitlin Starks (ASMFC), Savannah Lewis (ASMFC), Alan Bianchi (NMFS), Jason McNamee (RI), John Lake (RI), Scott Olszewski (RI), Nichola Meserve (MA), Corinne Truesdale (RI)

Five members the public attended the hearing. No participants provided comments. One question was asked about the process for approval of the addendum, which staff will follow up.

# Addendum XXXIII Public Hearings 

## Massachusetts Webinar Hearing

October 29, 2020
2 Public Participants

Public: Michael Pierdinock (MA), Luciano Mascari (MA)
Commissioners/Council Members: Nichola Meserve (Board), Raymond Kane (Board), Chris Batsavage (Board-NC), Mike Armstrong (Board), Michelle Duval (MAFMC), Dan Farnham (MAMFC)
Staff: Caitlin Starks (ASMFC), Savannah Lewis (ASMFC), Sam Truesdell (MADMF), James Cullen (MA), Alan Bianchi (NC DMF), Jared Silva (MA)

Two members the public attended the hearing. No participants provided comments. One participant had a question about clarifying the difference between the trigger approach and the percentage approach. A Commissioner had a question about how the trigger would work, and who would vote on it. A member of the public wanted to know if minimum sizes would increase in the state of Massachusetts.


# ATLANTIC OFFSHORE LOBSTERMEN'S ASSOCIATION 

Grant Moore, President exec@offshorelobster.org

David Borden, Executive Director

dborden@offshorelobster.org
23 Nelson St Dover, NH 03820 | P: 603-828-9342 | www.offshorelobster.org | heidi@offshorelobster.org
October 8, 2020

Caitlin Starks, FMP Coordinator<br>Atlantic States Marine Fisheries Commission<br>1050 North Highland Street, Suite 200 A-N<br>Arlington, VA 22201

Dear Ms. Starks,

I'm writing as representative of the Atlantic Offshore Lobstermen's Association to provide comments toward the Commission's Draft Addendum XXXIII to Black Sea Bass Commercial Management. As noted in our scoping document comments, our primary interest in this issue relates to black sea bass (BSB) being unavoidable bycatch in lobster gear, as most of our members do not directly target the species.

The Association supports revising BSB state-based allocations. Since implementation of static state-based allocation management in 2003 the species distribution has shifted considerably and small quotas in some states coupled with increased BSB abundance creates unnecessary discard. These discards could be avoided if the quota system was realigned in response to shifting distributions.

As to specific management approaches, the Association supports a solution that strikes a balance between historic allocations and current biomass, while also considering recent trends in fisheries utilization, discards, and fleet capacity. The approach should be dynamic, or at a minimum, static allocations should sunset after 2-3 years to prevent this issue arising again. The approach should readjust coastal state allocations to reflect local abundance and include provisions to shift allocations to the more southern states if the current trends reverse. If an approach is selected that will reduce states' quotas below historic landings, adjustments should be made incrementally to minimize financial disruption.

As to including state specific commercial allocations in the federal FMP managed by MAFMC and NOAA, we don't think it is warranted or valuable at this time. We believe it's unnecessary given that the MidAtlantic states are well represented on the ASMFC's BSB Board, giving them control of the vote if they choose to exercise that prerogative. We also note that there are no members of the New England states on the Mid-Atlantic Council, so it is hard to envision how New England fishermen would be able to provide meaningful input into the Council process. Finally, shifting interstate quota transfers from Commission to NOAA Fisheries purview would certainly make in-season management more difficult and less flexible. We have no objections to inclusion of the federal managers in deliberations on coastal allocation issues, but duplicate and redundant regulations are unwarranted.

Thank you for the opportunity to comment.


Heidi Henninger
Program \& Science Manager

Caitlin Starks, FMP Coordinator Atlantic States Marine Fisheries Commission<br>1050 North Highland Street, Suite 200 A-N<br>Arlington, VA 22201

Dear Ms. Starks,
Please find below our preferred alternatives for the Black Sea Bass Commercial State Allocation Amendment.

The Town Dock prefers the Alternative C, the Dynamic Adjustments to Regional Allocations (DARA) approach. This approach is extremely flexible and shifts the quota to where the fish are. Not only is this approach based on science, but it is also both fair and equitable, not showing favorability to one state over another.

Under Alternative C we support the following sub-options:

1. Sub-Alternative C1-A. At the end of the transition phase the allocations will be based on $90 \%$ of the stock distribution and $10 \%$ on the initial allocation. This alternative ultimately reaches the goal of this Amendment, by allocating the quota to where the stock is distributed.
2. Sub-Alternative C2-A. This alternative would the favor a slower transition of $5 \%$ per adjustment. This would allow for markets and processors to absorb any changes that will come with any changes in quota.
3. Sub-Alternative C3-B. Under this Alternative, adjustments to the allocations and stock distribution would occur every other year. This is the slower of the two adjustment rates, but for the same reasons I stated in C2-A it gives markets and processors time to absorb any changes.

Under Alternative G we support the following Sub-Alternative:

1. Sub-Alternative G2. This Alternative would create three regions 1) ME-NY, 2) NJ and 3) DE-NC.

45 STATE STREET | PO BOX 608 NARRAGANSETT, RI 02882

Regarding 3.2.1 Alternatives for adding allocations for adding state commercial allocations to the FMP we support Alternative A: Status Quo, that the commercial state allocations included only in the Commissions FMP. If the MAFMC should become involved there would be a requirement for joint action on issues. This makes discussion and voting more complicated and complex. How allocations are handled now is efficient and should remain as such.

Thank you for taking the time to consider our recommendations.

Sincerely,

Katie Almeida
Fishery Policy Analyst

From:
Sent:
To:
Subject:

Julie Evans [jevansmtk@gmail.com](mailto:jevansmtk@gmail.com)
Friday, November 13, 2020 8:18 PM
Comments
[External] Black Sea Bass Addendum XXXIII

The East Hampton Fisheries Advisory Committee has considered the ASMFC and MAFMC Draft Addendum XXXIll/Black Sea Bass Commercial State Allocation Amendment and makes the following comments and observations. It is hard to endorse the expansion of any particular plan option when there is considerable concern about the way the historic allocations were made in NYS and in the other states. The EHFAC would prefer to have this information before committing to any particular allocation scheme that becomes part of the ASMFC or the MAFMC fishery management plan or becomes a component of any new regulation or layer of government focusing on adding the burden of more regulation on the fishing industry. The new proposals are intriguing however and the dynamic allocation partially based upon regional stock distribution and partially based upon historic allocation may eventually rise to the top as an idea worth considering. However, we are not there yet as a committee ready to endorse this or any other of the options. It is our hope as the biomass moves northward that a plan which allows our East Hampton fishermen to maintain if not to expand this fishery in order to feed both the economic needs of industry and to consistently meet the demand to supply wild seafood to the people without disruption. This statement was written on behalf of the EHFAC by Capt. Julie Evans who was recently appointed and now officially represents the EHFAC.

| From: | Beverly Lynch [braelynch@gmail.com](mailto:braelynch@gmail.com) |
| :--- | :--- |
| Sent: | Thursday, September 10, 2020 9:56 AM |
| To: | Comments |
| Subject: | [External] black sea bass addendum XXXIII |

We are for Option I, Status Quo.
Of all years to change anything! The markets disrupted, quotas not landed and fishermen suffering. How many fishermen are going to be able to use these webinairs?
Your science shows a decline in seabass spawning stock biomass in the north since 2014. (figure I) By the time you change quotas, sea bass stock will have changed.
You shouldn't take quota from fishermen who have been landing it (until this awful year) and depending on it and give it to someone else who has never landed it.
Your alternatives are too complicated to even consider. They involve counting and redistributing fish with no consideration of people's livelihoods. Fish move and so do boats.

State quotas were a bad idea. Quotas should be allocated to individual fishermen as was done in Maryland, Delaware and Virginia. These individual quotas should be federal.

Beverly R. Lynch
Edward T. Smith
Painter, VA

## Caitlin Starks

| From: | ejcpoker@aol.com |
| :--- | :--- |
| Sent: | Thursday, September 10, 2020 5:31 PM |
| To: | Comments |
| Subject: | [External] Black Sea Bass regulations |

It seems as soon as the fishing populations start increasing, people want to increase the allocations. The reason and purpose of the increase was because of the strict regulations. The populations have not bounced back to previous levels prior to the year 2000. Please don't change anything!

From:
Sent:
To:
Subject:

Jean Public [jeanpublic1@yahoo.com](mailto:jeanpublic1@yahoo.com)
Monday, September 14, 2020 11:34 AM
Caitlin Starks
[External] Fw: ASMFC and MAFMC Schedule Public Hearings on Draft Addendum XXXIII/Black Sea Bass Commercial State Allocation Amendment - public comment on your below proposals
----- Forwarded Message
From: Jean Public [jeanpublic1@yahoo.com](mailto:jeanpublic1@yahoo.com)
To: Mid-Atlantic Fishery Management Council [contact@mafmc.org](mailto:contact@mafmc.org); comments@asmfc.org [comments@asmfc.org](mailto:comments@asmfc.org); cstark@asmfc.org [cstark@asmfc.org](mailto:cstark@asmfc.org); information@sierraclub.org [information@sierraclub.org](mailto:information@sierraclub.org); info@epwtrusts.org [info@epwtrusts.org](mailto:info@epwtrusts.org); info@peta.org [info@peta.org](mailto:info@peta.org); katherine.schatzmann@hsus.org
[katherine.schatzmann@hsus.org](mailto:katherine.schatzmann@hsus.org); info@idausa.org [info@idausa.org](mailto:info@idausa.org); info@cok.net [info@cok.net](mailto:info@cok.net);
info@nyclass.org [info@nyclass.org](mailto:info@nyclass.org); westchesterhumane@gmail.com [westchesterhumane@gmail.com](mailto:westchesterhumane@gmail.com)
Sent: Monday, September 14, 2020, 01:04:17 PM EDT
Subject: Re: ASMFC and MAFMC Schedule Public Hearings on Draft Addendum XXXIII/Black Sea Bass Commercial State Allocation Amendment - public comment on your below proposals
> we shoudl not increase any takings or harvesting. we need to ut the entire harvest down to $1,000 \mathrm{mt}$. that shoudl be the limit of commercial fishing. all states should get an equal amount. they then can trade among themselves. that is the fairest way. this is my comment for the below proposed policy. this cmoment is for thepublic record. please receipt. jean publiee jean public1@yahoo.com

On Wednesday, September 9, 2020, 01:01:47 PM EDT, Mid-Atlantic Fishery Management Council [contact@mafmc.org](mailto:contact@mafmc.org) wrote:

View this message in your browser


## September 9, 2020

From:
info
Sent:
To:
Subject:
Monday, November 2, 2020 9:31 AM
Comments
FW: Thank you for attending Black Sea Bass Addendum XXXIII Public Hearing (October 2020)

From: michael monteforte [mailto:mike.monteforte@hotmail.com]
Sent: Friday, October 30, 2020 6:02 AM
To: info [info@asmfc.org](mailto:info@asmfc.org)
Subject: [External] Re: Thank you for attending Black Sea Bass Addendum XXXIII Public Hearing (October 2020)
Good morning
The whole issue with black Seabass is very important to me, because it is one of my primary fisheries. To that point, to further understand what is about to happen to this fisheries by way of an increase or decrease, I felt it necessary to attend the meeting. I thought it would be complicated so I listened to the same program in New Jersey and in my home state of Rhode Island. I still am not sure of what direction I would support, because I still do not fully understand The proposal.

I continued to fish for black sea bass this whole year. There seems to be a huge biomass of Seabass and an abundance of small recruitment Seabass in our area. Which I find very encouraging. The webinar program was very well done!

Thank you for making the future changes to the Fisheries regulations available to me and other fisherman.
Have a great day!

## Michael Monteforte

On Oct 29, 2020, at 8:01 PM, Webinar Staff 2 [customercare@gotowebinar.com](mailto:customercare@gotowebinar.com) wrote:

We hope you enjoyed our webinar.
Please send your questions, comments and feedback to: info@asmfc.org.

Stop GoToWebinar emails $\mid$ Report spam

From:
Sent:
To:
Subject:

Jean Public [jeanpublic1@yahoo.com](mailto:jeanpublic1@yahoo.com)
Monday, November 9, 2020 5:37 PM
Comments; cstark@asmfc.org; tina.berger@mafmc.org
[External] Fw: Reminder: Nov 13 Deadline to Submit Comments on the Draft Addendum XXXIII/Black Sea Bass Commercial State Allocation Amendment
the present quota shoudl be cut by $50 \%$ immediately to prevent overfishing. the population needs to be sustainable. the commercial fishing fleet steals and you have such little amount of law enforcement you dont catch any of it. and they are killign dolphins and other animals because they eat fish. this commetn is for the public record. please receipt. jean publiee jean public1@yahoo.com
----- Forwarded Message -----
From: Mid-Atlantic Fishery Management Council [contact@mafmc.org](mailto:contact@mafmc.org)
To: "jeanpublic1@yahoo.com" [jeanpublic1@yahoo.com](mailto:jeanpublic1@yahoo.com)
Sent: Monday, November 9, 2020, 03:13:09 PM EST
Subject: Reminder: Nov 13 Deadline to Submit Comments on the Draft Addendum XXXIII/Black Sea Bass Commercial State Allocation Amendment

View this message in your browser


## November 9, 2020

## Reminder: Submit Comments on the Draft Addendum XXXIII/Black Sea Bass Commercial State Allocation Amendment by November 13

As a reminder, the deadline to submit public comments on the Atlantic States Marine Fisheries Commission's Black Sea Bass Draft Addendum XXXIII and the Mid-Atlantic Fishery Management Council's Black Sea Bass Commercial State Allocation Amendment is this Friday, November 13, 2020, 11:59 p.m. (EST). The draft amendment and addendum propose alternative approaches for allocating the coastwide black sea bass commercial quota among the states. This action also considers changes to federal regulations and Council management of state allocations.

Comments

|  |  |
| :--- | :--- |
| From: | Paul [tok67@verizon.net](mailto:tok67@verizon.net) |
| Sent: | Tuesday, November 10, 2020 8:13 AM |
| To: | Comments |
| Subject: | [External] Black Sea Bass Addemdum XXXIII |

Good morning ,
My recommendation is to leave the status QUO for all states and Quaota's. I also suggest allowing the sea bass to be added to the federal multi species A \& B licenses
Thank for reading
Paul

```
From:
    David Duncan Dow <ddow420@comcast.net>
Sent: Wednesday, November 11, 2020 6:12 PM
To:
Comments
David Duncan Dow
Subject:
[External] Black Sea Bass Addendum XXXIII
```

I am a retired marine scientist and grassroots environmental activist living on Cape Cod and wanted to submit comments on the Black Sea Bass
Commercial State Allocation Amendment. Black Sea Bass (BSB) and Summer Flounder are moving into Nantucket Sound, while Winter flounder \&
American lobster are moving either further offshore or Northeastwards into the Gulf of Maine. There has been a shift in forage fish prey as sea
herring population has collapsed and is being replaced by menhaden and other forage species from the Mid-Atlantic region (which are used as
lobster pot bait). Since the Atlantic States Marine Fisheries Commission and Mid-Atlantic Fishery Management Council manage Black Sea Bass
throughout their range, the commercial allocations will have to be increased in southern New England. Since I retired from the Northeast Fisheries
Science Center's Woods Hole Laboratory in 2009, I don't know enough about the status of the commercial fishery for Black Sea Bass in state/Federal
jurisdictional waters to make specific suggestions on how the commercial allocations should be divided in face of the COVID19 Pandemic health and socioeconomic crises.

Instead I plan to focus my comments on SAW/SARC process which develops the quota for Black Sea Bass and the "Productive Capacity" of Essential
Fish Habitat for this species. I was the Recreational Fisheries Coordinator in the Northeast for a number of years and attended the Stock Assessment
Workshop/Stock Assessment Review Committee meetings for key recreational species. In addition, I served on the New England Fishery Management
Councils Habitat Plan Development Team which helped developed Omnibus Habitat Amendment 2 which was released in 2018. I also participated in the

EMaX (Energy Modeling \& Analysis Exercise) project which developed a carbon flow model for the Northeast Continental Shelf Ecosystem. Finally I have
read the Executive Summary of the Ecosystem Status reports for the Mid-Atlantic and New England Regions which discussed human stressors like warming
waters; increased ocean acidity and ocean noise; conflicts from other human uses like ocean wind farms (with 20 to be built between North Carolina and New
England between now and 2030); shifts in managed species and their prey in space and time which influence recruitment; growth and natural mortality in
stock assessment models and allocations in the catch quotas between state ( $0-3$ miles)/Federal (3-200 miles) jurisdictional waters and Massachusetts Ocean
Management Plan (0.3-3 miles).
Interactions between "Nitrogen Enrichment"; warming waters; increased ocean acidity and periodic anoxia in bottom waters during the Summer have effected
coastal finfish/shelfish habitats in coastal embayments adjacent to Nantucket Sound (i.e. Waquoit Bay watershed) and Cape Cod Bay (killing lobsters in their
pots). It is not apparent to me that the NOAA Fisheries SAW/SARC process includes these human environmental stressors in the stock assessments that
provide the basis BSB commercial quotas. For example, climate change effects the base of the marine pelagic food chain (microbial and grazing food chains)
\& top down shifts in predation/competition as fish species and there prey shift in space/time. The current population dynamic models assume that the age
structure of the managed fish populations will reflect the effects of climate disruption in the COVID-19 era when the Bottom Trawl Surveys no longer take place.
As someone who lead two Task Forces on the NEFSC Monitoring \& Ecosystem Survey programs, this doesn't appear to be a sound assumption. The same is
true for the assumption that the "Natural Mortality" component is constant in the midst of these human based stressors. The BOEM Cape Cumulative
Environmental Impact Assessment of the proposed 20 wind farms indicated potential effects on "Fisheries Management". The Ecosystem Status reports indicate
that shifts in the pelagic food chain will decrease the yield of Living Marine Resources as community respiration increases in a longer food chain (something born
out in the EMaX model). Thus the SAW/SARC quotas should be viewed with caution from my perspective.
Essential Fish Habitat for pelagic species needs to be modified to include the shifts in the food chain which reduce the yield of managed species. As the BOEM
MV Wind Supplemental EIS pointed BSB should benefit from the structures provides by ocean wind farms being constructed in Southeastern New England
(which would support increasing the commercial catch allocation locally). NOAA Fisheries assumes that ocean wind farms will negatively effects most pelagic
fish stocks. When I lived in Slidell, La many saltwater anglers used offshore oil/gas platforms to fishing sites (in spite of periodic spills and fires). You might want
to consider an adaptive, ecosystems-based management approach ( $\mathrm{a}, \mathrm{EbM}$ ) to explore the consequence of shifts in the ecosystem which influence BSB and
other pelagic target species. This would include both bottom-up and top down shifted in EFH. There needs to be shifts in the NEFSC Monitoring and Ecosystem Surveys
To support the a, EbM (return continuous plankton surveys to the Gulf of Maine from vessels of opportunity or increased use of drones/underwater submersible vehicles
like the North Atlantic right whale surveys around a wind farm off the coast of New Jersey).
The one final point is that the socioeconomic studies on commercial fishing should include Environmental Justice issues in coastal communities and ecological economics
considerations on the effects of fishing on marine biodiversity and marine natural capital/ecosystem services. Here on Cape Cod we are losing our working waterfront to other
non-water related activities which will make it hard to continue commercial fishing into the future for smaller vessels. When I worked at the Fisheries Lab, I chaired a Gulf of
Maine Council on the Marine Environment Task Force on Fisheries \& Aquaculture and we developed indicators on the Economic Multiplier Effects at the County level throughout
New England. This might help preserve the Working Waterfronts in small towns from inroads of tourist-based enterprises as young people move to cities/suburban areas for better
job opportunities. It is not easy to buy a house or rent a year round apartment here on Cape Cod, even if you work for the Federal Government. There is a Woods Hole Diversity
Advisory Committee that provides input to the scientific institutions on EJ concerns locally. Roughly $35 \%$ of the employees at the Fisheries Lab in Woods Hole are contractors who
require housing. When I worked at NASA's Earth Resources Laboratory at the Stennis Space Center in Mississippi we had 3-4 contractors for every civil servant. It is likely that the
post-COVID 19 world will feature more contractors replacing civil servants/full time employees with salaries \& benefits
Thanks for your consideration of these comments.
Dr. David D. Dow
East Falmouth, Ma.

| From: | Jim Dawson [jimdawson1@verizon.net](mailto:jimdawson1@verizon.net) |
| :--- | :--- |
| Sent: | Wednesday, November 11, 2020 6:29 PM |
| To: | Comments |
| Cc: | ELLEN BOLEN; Jill Ramsey |
| Subject: | [External] James Dawson black sea bass comments |
|  |  |
| Importance: | High |

I am a commercial "full time" black sea bass fisherman 12 months out of the year. You all may check that I personally may be the ONLY fisherman who fishes for them and places black sea bass on the market 12 months in a year.
1.) My vessels are "forced" to maintain records by "VTR". If anyone would just check these records and my own records to verify that the black sea bass population has grown and "expanded" in ALL areas. Our catch records "VERIFY" this.
2.) Mark Hodges records in Virginia Beach will also verify that our catch has substantially increased, not that they have moved north, but the overall stock size has expanded as our catch data verifies as FACT!
3.) Several northern states had a problem with catching their quota for 2020 which has not happened in the past, indicating a possible "peak" in the northern states stock size.
4.) "Jumbo bass" have not been as prevalent within the marketplace also indicating a northern fishery peak and year class loss not seen and as noticeable until 2020. This indicates "overfishing" within the northern states fishery and biomass.
5.) Our stock size within the southern "Mid Atlantic states" have lost over $90 \%$ of the sea bass "set gear" which has allowed our southern stock and biomass to dramatically increase. VTR records verify these statements as FACT.

Please do NOT allow adjustments that have serious and life altering impacts such as we have already witnessed currently in 2020. Increasing quotas and allocations simply lowers market prices and causes more pressures on fishermen and the species! We would ALL be better off fishing for less fish at a higher market price. More fish would then be available to each sector of fishermen. It is and has been a very bad decision to raise the quota levels and these decisions came from those currently attempting to make this one! Today, 11-11-2020, the price offered at the dock for a black sea bass fell below $\$ 1.00$ to the boat! This fact crushes the "small fishermen" and we feel as though it may be by design. Yes, our stocks ARE growing, but damn, give them a chance to grow, you all did a good job and were slowly increasing the amounts. This doubling the amount and also not giving things until halfway through the year has caused difficulties that I believe SHOULD BE discussed MUCH further with respect to "economic impacts" that "legally" our commission and council members MUST follow.

At this point until those economic impact statements from fishermen such as myself are followed and received by each fisherman, we should stay at a "status quo" until we can discuss what impacts everyone has gone and suffered through.

I CANNOT agree that the overall stock has "moved north". My catch records verify that it has not and I personally have caught MORE than my own personal quota since Virginia started a historically based IFQ system. This fact alone indicates what Jimmy Rhule has stated over and over: "The sea bass stock has simply expanded in size, it has not moved".

[^31]Comments

|  |  |
| :--- | :--- |
| From: | JACK STALLINGS [vagrumpy@aol.com](mailto:vagrumpy@aol.com) |
| Sent: | Friday, November 13, 2020 9:11 AM |
| To: | Comments |
| Subject: | [External] Black Sea Bass Addendum XXXIII |

I have been involved in the commercial BSB fishery since 1973, so about 47 years. It will take me at least that long to understand what I just tried to read in the 59 page amendment you posted.
Keep the quota Status Quo!
Thank you,
Jack Stallings
Virginia Beach, Va
Sent from my iPad

| From: | Joe [jdelcampo@cox.net](mailto:jdelcampo@cox.net) |
| :--- | :--- |
| Sent: | Friday, November 13, 2020 2:37 PM |
| To: | Comments |
| Subject: | [External] Bsb management plan |

My name is Joe Del Campo. I have been in the black sea bass fishery since the 1980s. I fish in the state oF VA. I choose status quo for section 3.1 option A.
If you choose a trigger management plan I choose option D1-B which uses a trigger of 4,500,000 pounds.
Section 3.2 I choose option A status quo.

Under Sub alternative I choose option B-2 where states always pay back their overages Section 3.2.2 I choose option A. Status quo no in season closures.

I have invested hundreds of thousands of dollars in Virginia BSB IFQ's. Should you choose to reallocate this quota I hope you have the means to compensate those of us who have significant investments in our quota. Thank you. Joe Del Campo

Sent from my iPhone

## COMMENTS REGARDING BLACK SEA BASS ALLOCATION AMENDMENT

Of the options offered in regard to the reallocation of sea Bass quota, I support Status Quo, primarily because of all the options offered they all will steal more quota from New Jersey. Steal is a harsh word, but its exactly what is being attempted. A little history lesson for the newby's on the council and commission, back in 2003 during the development of what was amendment 13 which in conjunction with the ASMFC created the state by state system which has allocated sea bass quota since that year, each state was proposed to receive an allocation based on their catch history during the time frame of 1980 to 2001. There were a number of different timeframes to choose from and each generally had a different percentage of quota which a state would receive according to the landings they had in any of the timeframes chosen. New Jersey's percentages ranged from a low of $28 \%$ to a high of $38 \%$ which was indicative of NJ's strong commercial sea bass fisheries, both trap and trawl. Somehow during lunch at the council /commission meeting to decide the fate of the amendment, New Jersey's state director decided that it was a good idea to give away New Jersey's hard earned quota to make a few cry babies to the north happy. So instead of getting a $30 \%$ share, NJ gave away roughly $10 \%$ of the total commercial allocation to make other states feel better. And here they are back demanding more.

Let me give you an idea of what NJ gave away. With an average annual coastwide commercial quota of 4 million pounds that means NJ gave away 400,000 pounds every year from 2004 to present. If I use a very conservative average price over that time of $\$ 2.50$ a pound, that means New Jersey fishermen gave away one million dollars worth of fish every year for a total around 16 million dollars. Let me be clear, Mr Freeman did not ask any commercial fishermen for their thoughts on this matter he unilaterally gave the fish away, as a Council member at the time I was livid over this unwarranted give away, \{and he didn't ask me about this idea until after the fact]. So my position and I'm sure every fisherman in NJ believe that we should not give up another pound of quota. Remove us from consideration, or else give us back some of the quota that we rightfully were supposed to receive, and then take that. During the development of the original summer Flounder plan I didn't hear North Carolina or Virginia offer to give away any of their quota, for any reason, and just recently they fought tooth and nail to retain as much quota as possible from the northern raiders.

Fair and equitable management isn't fair if the ASMFC arranges voting blocks to be able to transfer quota from one state to another by taking from those with the largest fisheries and giving it to other states who never had much of a fishery, so that they will vote for the thievery. With that in mind I support more involvement of the MAFMC in the state by state management system, after all over $90 \%$ of Black Sea Bass commercial landings come from federal waters, so its amazing how this plan ever came into place in the first place, but we all know its because the ASMFC has the ability to utilize state by state management plans, while the MAFMC does not.

If the stock has shifted to the north its hard to tell in New Jersey, because we are flooded with them. In over 45 years of fishing I have never seen Sea Bass as plentiful as they are right now, and every year just gets better in regard to the stock, The over all quota should be raised, it is artificially low, and raising it to something resembling a reasonable MSY figure would alleviate some of the need to change allocations. There is something that the council and commission should consider doing that would be a help to almost all the states and their fishermen and would help keep the price stable. Presently Virginia and Maryland manage their quota by an ITQ system, I don't think that Maryland even has an active sea bass fisherman at this point, those with state granted quota are simply leasing it out by the pound, while they count their cash without doing anything. I don't know the present situation in regard to how many active Sea Bass fishermen are working in Virginia under their state ITQ system, but a large amount of that quota has been leased to out of state boats over the last few years. This week alone northern fishing vessels utilizing Maryland and Virginia ITQ poundage had individual landing in the order of, 30,000 , pounds, 25,000 pounds and 15,000 , a piece, days later in one case the buyer is still trying to sell these fish and price has dropped below a dollar a pound average. [The vessel with the 30,000 pound trip caught those fish in only two days of fishing, that's an insane catch rate]. ITQ fisheries disrupt the market and harm all fishermen, except the lazy dogs renting it out. So if northern states want more quota, let them buy it from Maryland and Virginia at a fair market value that would compensate the present ITQ holders. A system like this exists in Scallops, quota can be leased for a year or sold forever to anyone who has the money. Create a system where the states that need the quota can buy it from the states that don't really utilize it. The purchasing states could set up some type of fee to pay for the quota over time by those utilizing it, [perhaps a 10 cent a pound landing fee on BSB until the purchase price is paid off.]

All the fishermen along the coast are being financially hurt by these huge ITQ landings that destroy the market for weeks at a time. Perhaps its time for a federal maximum trip limit of 7,500 pounds so that all participants can fairly compete and not be unfairly advantaged by these huge ITQ trips. Something needs to be done and now's the perfect time to do it.

Thanks, Jim Lovgren
FV Shadowfax

From:
Sent:
To:
Subject:

Joe Gilbert [hiddenemp@aol.com](mailto:hiddenemp@aol.com)
Friday, November 13, 2020 4:21 PM
Comments
[External] Draft Addendum XXXIII

## RE: BSB draft addendum \#33

Thankyou for the opportunity to comment.
I appreciate the creativity and effort that went into developing the draft Addendum \#33.
It would seem simple to support 3.1B and have allocations as proposed in Table 2. Try this first.
Pg 10 3.1B
Increase CT to 5\%. Even though it only impacts other states by a fraction of a percent I think it is likely to be opposed by states taking the reduction.
If 3.1B does not get support, then I move to the position detailed below.
State quotas and fishermen's access to resource are historic positions that were hard earned over many years. I expect that states with larger quota shares and the fishermen that have permits to access that quota will vigorously defend from having their positions diminished.

I am active in the CT state water BSB fishery as well as the Federal waters fishery where we regularly land BSB into NJ, VA and NC. I, like others, have large investments in vessels and permits. I want to see CT benefit from BSB, however not at the expense of my NJ, VA and NC permit values. The goal is to increase CT Quota without taking quota from someone else.

Options that reduce or shift baseline quota will be destabilizing to the fishery. Current state quota allocations allow trawlers to land trips in distant ports. Sometimes these trips are profitable and sometimes they are not. Quota shifting would result in diminished economic viability for trawlers to visit distant ports and at some point forego marginal landings. Consequences to the ports must be considered also.

I do not think the DARA approach is right to do.
lam resistant to base allocation change.
Support D Trigger approach. The option that could benefit low quota states without destabilizing current norms is the trigger approach. I support this because while BSB populations in the northern range are increasing, BSB in the southern rage is not decreasing. Therefore the established norm is based on something that still exists.

## 1. Trigger Value -

I support Sub option D1-A
The 3 million pounds represents a recent historical average that allows business as usual for all, before any surplus is distributed.

D2B is good dividing into regions would provide for surplus from region to redistribute without affecting the other region.
I strongly support E-5\% to CT off the top.
D3A increase equally if $E$ is not supported
G Regional Configuration - I support sub option G1 2 Regions
3.2.2 Sub option B-1 - Payback only if coastwise quota is exceeded. I would expect states to cooperate and keep account of "borrowed" quota to account for state or regional overages.
3.2.2 Again - in season closures-I support whichever option is most permissive of fishing effort and most lenient on overages. It is important to harvest these fish for ecologic balance and economic opportunity.

Respectfully submitted:
Joseph J Gilbert
Empire Fisheries
Stonington CT
203-606-2831
From:
Sent:
To:
Subject:
Sonny Gwin [sonnygwin@verizon.net](mailto:sonnygwin@verizon.net)
Friday, November 13, 2020 7:03 PM
Comments
[External] Public comment - Black Sea bass Allocation

- Which proposed options/sub-options do you support, and which options/suboptions do you oppose?

I believe that the fair option would be to maintain the current state allocation percentages (status quo).
-Why do you support or oppose the option(s)?
The black sea bass fishery is one of the most important federal fisheries because black seabass are landed 12 months out of the year. Consumers depend on the year-round fishery for consumption while commercial fishermen from West Ocean City; Maryland's only ocean inlet, depend on them for their livelihood. Local fish houses rely heavily on the black seabass quota to remain open yearround which keeps community members employed. It is a very important fishery for the state of Maryland.

- Is there any additional information you think should be considered?

In reference to alternatives for adding state commercial allocations to the Council FMP, I support that commercial state allocations for black sea bass be included in both Commission and Council FMPs. Black seabass are a mainly a federal fishery, with over 70\% of seabass caught in federal waters and therefore should be part of the Council's FMP. As a seabass fishery participant and a Council member, this topic impacts me, my family and the State of Maryland greatly.

| From: | Squarespace |
| :--- | :--- |
| To: | Lulia Beaty |
| Subject: | Form Submission - 2020-09 BSB Allocation Amd |
| Date: | Wednesday, November 11, 2020 2:38:20 PM |

Sent via form submission from Mid-Atlantic Fishery Management Council
Name: Mark Hodges
Email: mlhodges56@verizon.net

## Primary state(s) for black sea bass fishing activity:: Virginia

Comments: Mark Hodges, I am full time comm. BSB trap fisherman, I support status quo. The science that the northern states are basing this proposed $\%$ changes is false. The stock is expanding not shifting. There still exist large amounts of BSB below Wilmington NC, the Chesapeake bay is full of nice BSB all the way up into Maryland. I am having the best fall that I have had in a number of years. I have caught almost 19,000\#s in Oct. and Nov. as of Nov. 11. It appears that there are not as many BSB in the northern states as there has been in the past because of Ma. just now closing, where in the past years they were never open for this long. My biggest problem with this quota grab is the use of the extra quota that the northern states may get. From Ney Jersey south the BSB quota is caught almost exclusively by full time commercial fishermen. If the northern states do get the extra quota a very high $\%$ of the quota will go to recreational who buy a state license authorizing them to sell BSB at very small trip limits, thus creating a nice financial windfall for these northern states, a 50\# trip limit is not a comm. fishery. The vast majority of these fishermen do not have a comm. BSB license, because most of the fish come from state waters. Mark Hodges

| From: | Squarespace |
| :--- | :--- |
| To: | Цulia Beaty |
| Subject: | Form Submission - 2020-09 BSB Allocation Amd |
| Date: | Friday, November 13, 2020 3:50:12 PM |

Sent via form submission from Mid-Atlantic Fishery Management Council
Name: Thomas Anderson
Email: tommya705@comcast.net
Primary state(s) for black sea bass fishing activity:: New Jersey
Comments: I'd like everything to stay at status quo. I feel that we gave away enough quota in the past and have no problem catching the quota available to us now.

# Atlantic States Marine Fisheries Commission 

## MEMORANDUM

December 1, 2020

# To: Summer Flounder, Scup, and Black Sea Bass Management Board \& Mid-Atlantic Fishery Management Council <br> From: ASMFC and MAFMC Summer Flounder, Scup, and Black Sea Bass Advisory Panels <br> RE: AP Review of Draft Addendum XXXIII Options and Public Comments 

ASMFC AP Participants: Jack Conway, Greg DiDomenico, Jim Lovgren, Mark Hodges, Marc Hoffman, Michael Plaia, Buddy Seigel

MAFMC AP Participants: Katie Almeida, Joan Berko, James Fletcher, Michael Pirri, Michael Plaia, Bob Pride, Harvey Yenkinson

Other Attendees: Chris Batsavage (NCDMF), Alan Bianchi (NCDMF), Emily Keiley (NOAA), Mike Luisi (MDDNR), Corinne Truesdale (RIDEM), Hannah Welch, Angel Willey (MDDNR)

Staff: Caitlin Starks (ASMFC), Savannah Lewis (ASMFC), Julia Beaty (MAFMC)
The following memo contains input from members of the Commission and Council's Summer Flounder, Scup, and Black Sea Bass Advisory Panels (APs) on Draft Addendum XXXIII and the Council Amendment on black sea bass commercial state allocations. The input provided is the opinion of individual advisors and does not represent consensus recommendations.

An AP webinar meeting was held on November 19, 2020 to review the management options presented in Addendum XXXIII and the Council Amendment. Thirteen AP members attended; seven from the Commission and seven from the Council (one is a member of both APs). Staff presented the options presented in the documents for public comment, a summary of the public comments received, and a draft socioeconomic impact analysis. Input and recommendations from individual AP members are summarized below.

## Draft Addendum XXXIII/Council Amendment Comments

Greg Didomenico, representing Lunds Fisheries in New Jersey, supported status quo commercial state allocations (Option A under Section 3.1).

Michael Plaia commented that he holds a federal permit and license, but this year he did not fish at all because of COVID-19. He stated that given the pandemic there is no basis to change anything this year, as there has been no research on the status of the stock or a management track assessment. He thinks status quo should be maintained until we have better information. He also indicated support for management of the state allocations only under the Commission FMP (Option A under Section 3.2.1).

Bob Pride commented that he has spoken with a limited number of commercial and recreational fishery participants in Virginia, and they all support status quo allocations.

Katie Almeida commented that the Town Dock in Rhode Island supports the DARA approach (Option C under Section 3.1) for state allocations. The sub-options they support are C1-A, C2-A, and C3-B. For regional configuration, the Town Dock supports option G2, which creates 3 regions. They also support status quo for Commission-only management of the state allocations (Option A, Section 3.2.1.).

Joan Berko commented that New Jersey pot fishermen support status quo for allocations, because black sea bass is their primary fishery and livelihood.

Jim Lovgren stated that the Fishermen's Coop at Point Pleasant supports status quo for all measures. He added that he supports the idea of the quota bank that was presented in the public comments. In addition, he believes that since the majority of the commercial black sea bass landings come from the EEZ, MAFMC should manage the allocations (Option B, Section 3.2.1.). He stated that he is concerned with ASMFC controlling the allocations because they can play political games to steal quota from states with strong historical allocations, such as what happened with New Jersey's allocation when it was originally established. He said that New Jersey lost $\$ 16$ million in income because of the quota that was given away to other states that wanted more quota.

Harvey Yenkinson agreed that the Council should be involved because the disparity in the regulatory processes between the two bodies is confusing, and we should be working toward uniformity in the fishery regulations.

James Fletcher commented that the United National Fisherman's Association is in support of status quo state allocations. He added that if other states want more fish, they should use enhancement programs to raise and release black sea bass in their own state waters, and that could justify an increase in their landings.

Mark Hodges, who is a trap fisherman in Virginia, also supported status quo for the state allocations. He added that the Council and Commission should get information about where quota that gets reallocated is going to go, because he could be more receptive to giving up a little bit if it was going to go to commercial fishermen, but he believes the majority is going to go to people who are essentially recreational participants who want to sell small amounts of landings. He stated that the northern states have small trip limits, which are not enough for a true commercial harvester to make a living. If reallocating quota is going to be an enhancement to the recreational fishery then it is just stealing from the southern states. He said that fishermen from New Jersey and further south are full-time fishermen, and that is why he is against transferring quota away from those states. Jim Lovgren also noted a concern with commercial hook and line fisheries in northern states taking away quota from "real" commercial fishermen.

## General Comments

Harvey Yenkinson expressed concerns with the fishery being inefficient and producing waste. He said that as additional quota is available it should be allocated with the goal of reducing
discards, perhaps allocating to areas with increased abundance, or to more efficient gears like pots as opposed to trawls. He thinks the Council and Commission should consider gear and species distribution as factors to make fisheries more efficient, especially during times like now when there is more quota available.

Two advisors noted concerns about the federal trawl survey not being able to capture black sea bass habitat with rocky bottom, and therefore not providing adequate measures of stock abundance.

James Fletcher questioned the rationale of giving so much of the total allocation to the recreational industry when recreational anglers only make up $6 \%$ of the country's population. These comments referenced a separate ongoing action to consider revising the commercial/recreational allocations for summer flounder, scup, and black sea bass. Jim Lovgren responded that the recreational allocation was determined based on historical recreational landings compared to commercial landings. James Fletcher also suggested that managers should look at how Japan and Norway are managing their species, because our management system is creating an import market rather than producing fish.

Several advisors expressed that they find Individual Transferable Quotas (ITQs) to be problematic. One said that they cause the public to not get their fair share of the fish. Another advisor commented that ITQ vessels will land large amounts of fish at a time in Virginia and Maryland, and the fish houses will have a hard time selling them all. When this happens, it disrupts the market for weeks at a time. He thinks there should be a federal possession limit of 7,500 pounds because otherwise it is a waste of the resource; the consumer does not see it because the dealers still charge the consumer the same amount, but the harvesters are not getting as much money. He reiterated that smaller trip limits would help this situation, and it is an important issue that the Council should address.

# MEMORANDUM 

Date: $\quad$ December 4, 2020
To: Chris Moore, Executive Director
From: Julia Beaty, staff
Subject: Potential Impacts of Alternatives in Black Sea Bass Commercial State Allocation Amendment/Draft Addendum XXXIII

## Introduction

This document summarizes a preliminary analysis of the potential impacts of the alternatives under consideration in the Mid-Atlantic Fishery Management Council's (Council's) Black Sea Bass Commercial State Allocation Amendment and the Atlantic States Marine Fisheries Commission's (Commission's) Draft Addendum XXXIII. Both actions consider the same alternatives, which are briefly summarized below. The alternatives as well as additional background information are described in more detail in the Council's public hearing document ${ }^{1}$ and the Commission's draft addendum. ${ }^{2}$
Note that for ease of identification of the alternatives, a prefix of 1,2 , or 3 was added to indicate the alternative group as described in the public hearing document and Draft Addendum XXXIII. A prefix of 1 indicates an alternative associated with the state allocation percentages. A prefix of 2 indicates alternatives related to adding the state allocations to the Council’s Fishery Management Plan (FMP). A prefix of 3 indicates alternatives associated with federal in-season closures.
The impacts of the alternatives are expected to be mostly socioeconomic in nature; however, the potential impacts on the black sea bass stock are also considered in this document. A more complete impacts analysis, including consideration of impacts on other components of the ecosystem such as non-target species, marine mammals, species listed as threatened or endangered under the Endangered Species Act, and marine habitats will be included in a forthcoming Environmental Assessment for the Council's amendment. Major impacts to these other components of the ecosystem are not expected as none of the alternatives are expected to have notably different impacts than the impacts of the overall coastwide quota. As described below, the alternatives may impact the spatial distribution of landings, though they will have lesser impacts on the spatial distribution of fishing effort, and they may impact discards, mostly in state waters fisheries; however, they are not expected to have notable impacts on the overall amount of catch or effort in the commercial black sea bass fishery, which will continue to be primarily driven by the coastwide quota. The impacts of the coastwide quota and landings limits

[^32]are analyzed separately through the annual specifications process. This action considers only how to allocate the quota among states and other changes to how the quota is managed.

Table 1 summarizes the potential socioeconomic impacts of the alternatives. Potential impacts on the black sea bass stock are not summarized in the table as all alternatives are expected to have moderate positive impacts as the currently positive stock status should be maintained under all alternatives, as described in more detail later in this document.

Unless otherwise noted, socioeconomic impacts are evaluated with regards to potential future revenues for fishermen, commercial fish dealers, and support businesses. Actual revenues will be impacted by multiple factors in addition to the state quota allocations, including, but not limited to, the overall quota level, prices, and market demand. The impacts discussions below generally consider the state allocations in isolation and assume that these other factors will remain constant. They also assume that the commercial fishery will operate in similar ways as it has under the historical range of quotas through 2019. The 2020 commercial quota was the highest implemented for black sea bass, and the 2021 quota will be $9 \%$ higher than the 2020 quota. However, performance of the commercial fishery in 2020 is not representative of typical conditions as the fishery was greatly impacted by reduced market demand due to COVID-19 restrictions such as restaurant closures.

It is worth noting that the state quota allocations may have different impacts under different coastwide quota levels. For example, under high coastwide quotas, the state allocations will be less impactful than under low coastwide quotas.

Table 1: Summary of expected socioeconomic impacts of the alternatives.

| Alternative | Expected Socioeconomic Impacts |
| :---: | :---: |
| 1-A. No change in state allocations | - Continued moderate positive impacts for fishermen and dealers who have relied on black sea bass for notable amounts of their past revenues. <br> - Some negative impacts for fishermen in states with currently low allocations but high black sea bass availability as avoiding or discarding black sea bass may negatively impact efficiency of the fisheries. |
| 1-B. Increase CT allocation to 5\% | - Positive impacts for CT due to increased potential revenues under increased allocation. <br> - No impacts for DE and NY as their allocations would not change. <br> - Slight negative impacts for all other states due to decreased allocations and decreased potential revenues (degree varies by state). |
| 1-C. Dynamic Adjustments to Regional Allocations (multiple sub-alternatives) | - Many alternatives allow for a wide range of potential outcomes. Impacts will vary based on the specifics of any allocation changes. <br> - Positive impacts for states with increased allocation percentages and negative impacts for states with reduced allocation percentages due to |
| 1-D. Trigger approach (multiple subalternatives) | increased or decreased potential revenues from black sea bass landings. <br> - Impacts may vary based on the scale and pace of change. Large and fast changes could cause short-term disruptions in the fishery and negative |
| 1-E. Trigger approach with increase to CT and NY allocations first (multiple subalternatives) | socio-economic impacts. Smaller and slower changes could have minor impacts. The optimum scale and pace of change may be a policy decision. <br> - Most alternatives and combinations of sub-alternatives allow for consideration of tradeoffs associated with: |
| 1-F. Percentage of coastwide quota distributed based on | o The benefits of predictability and stability (i.e., alternatives or combinations of sub-alternatives with greater reliance on historical allocations), and |


| Alternative | Expected Socioeconomic Impacts |
| :---: | :---: |
| initial allocations (multiple subalternatives) | o The benefits of aligning allocations more closely with distribution of the stock to increase fishery efficiency (i.e., alternatives or combinations of sub-alternatives with a greater reliance on recent distribution information). <br> - Fishermen using trawl gear may be better able to take advantage of increased state allocations than pot/trap fishermen. |
| 1-G. Regional configuration alternatives (two subalternatives) | - No meaningful socioeconomic impacts. |
| 2-A. State allocations remain only in Commission's FMP | - Minor impacts compared to 2-B. Transfers after December 16 to prevent state-level overages could continue to occur through the Commission process. |
| 2-B. Add allocations to Council FMP | - Minor impacts compared to 2-A. Transfers after December 16 would be limited to unforeseen emergency situations. |
| 2-B-1. State overage paybacks only if coastwide quota exceeded | - Negative impacts due to potential lost revenues when paybacks are required. Impacts are less negative than under 2-B-2, which would require more frequent paybacks. |
| 2-B-2. States always pay back overages | - Negative impacts due to potential lost revenues when paybacks are required. Impacts are more negative than under 2-B-2, which would require less frequent paybacks. |
| 3-A. No changes to federal in-season closure regulations | - Negative impacts when an in-season closure is triggered, especially for states that have not fully landed their allocations. Closures could be triggered more frequently than under 3-B. |
| 3-B. In-season closure at quota plus buffer | - Negative impacts when an in-season closure is triggered, especially for states that have not fully landed their allocations. Closures could be triggered less frequently than under 3-A. |
| 3-C. In-season closure at ACL | - Negative impacts when an in-season closure is triggered, especially for states that have not fully landed their allocations. <br> - Cannot compare potential frequency of closures to 3-A and 3-B due to uncertainty in how this alternative would be put into practice. <br> - Additional negative impacts compared to 3-A and 3-B as closures may be harder to predict as NMFS would need to make assumptions about discards in-season. |

## Alternative Set 1: State Commercial Quota Allocation Percentages

The following alternatives are under consideration regarding the state commercial quota allocation percentages. Some alternatives include multiple sub-alternatives, which are not listed here. The alternatives and sub-alternatives are described in more detail in the Council's public hearing document and the Commission's draft addendum.

1-A. No action (status quo). This alternative would not change the current commercial state allocations.

1-B. Increase Connecticut's allocation to 5\% from 1\%. Varying amounts of allocation would be taken from all other states except Delaware and New York based on a specific proposal described in the public hearing document and draft addendum.

## 1-C. Dynamic Adjustments to Regional Allocations (includes multiple sub-alternatives which are not listed here). This approach involves a gradual transition to allocations based on

a combination of the initial allocations and regional biomass distribution information. The allocations would be regularly adjusted. For this reason, and because there are many subalternatives to set the scale and pace of change, this approach could have a wide range of outcomes and the outcomes could vary over time.

1-D. Trigger approach (includes multiple sub-alternatives which are not listed here). Under this approach, the coastwide quota up to a pre-determined amount (i.e., the "trigger") ranging from 3 million pounds to 4.5 million pounds would be distributed according to the base allocations and any surplus quota above that amount would be distributed either equally among states (except Maine and New Hampshire) or would be distributed in a way that accounts for regional biomass distribution.

## 1-E. Trigger approach with increase to Connecticut and New York allocations first.

Under this alternative, any surplus quota above a 3 million pound trigger would first be used to increase Connecticut's allocation from $1 \%$ to $5 \%$. Any remaining surplus would then be used to increase New York's allocation from 7\% to $9 \%$. Any additional remaining surplus would be divided among the remaining states based on the specific proposal described in the public hearing document and draft addendum.
1-F. Percentage of coastwide quota distributed based on initial allocations (includes multiple sub-alternatives which are not listed here). This approach would allocate a fixed percentage of the annual coastwide quota ranging from $25 \%$ to $75 \%$ using the initial allocations. The remaining amount would be distributed either equally among states (except Maine and New Hampshire) or would be distributed in a way that accounts for regional biomass distribution.

1-G. Regional configuration alternatives (includes two sub-alternatives). Alternatives C-F above require consideration of regional biomass distribution. This alternative set contains two alternatives for how to define the regions.

## Socioeconomic Impacts of Alternatives for State Commercial Quota Allocation Percentages

Under the no action alternative (alternative 1-A), the current state allocations would remain unchanged and continued moderate positive socioeconomic impacts would be expected for fishermen and commercial fish dealers that have relied on black sea bass landings for noteworthy amounts of their income in recent years. These continued positive impacts may be greatest for fishermen who land their catch in states with higher quota allocations, and dealers based in those states, compared to those in states with lower allocations. Some continued negative socioeconomic impacts may be felt by fishermen who operate in states with currently low allocations but high black sea bass availability, as avoiding or discarding black sea bass may negatively impact the efficiency of their operations. However, in both cases, these positive and negative impacts under the no action alternative would not be different than the recent impacts of the current quota allocations, which have been in place since 2003. This would represent a continuation of the current positive impacts for some fishermen and dealers and negative impacts for others. Neutral impacts would be expected for fishermen who have not historically caught black sea bass and dealers that have not historically relied on revenues from black sea bass.

In general, under all alternatives which would modify the state allocation percentages, positive socioeconomic impacts would be expected for states with increased allocation percentages and negative impacts for states with reduced allocation percentages. These positive and negative impacts would mostly derive from increased or decreased potential revenues for commercial fishermen, dealers, and other commercial fishery support businesses. The magnitude of the impacts will depend on the magnitude of the change in allocation.

Price data from 2010-2019 (adjusted to account for inflation) suggest that higher landings can be associated with lower prices paid by dealers to fishermen in New Jersey through North Carolina (Figure 1). Therefore, the positive socioeconomic impacts of increased landings in those states could be partially, though not entirely, offset by a decrease in price. Price data show no strong relationship between price and landings in Maine through New York (Figure 1); therefore, an increase in landings in those states may not impact price. The relationship between price and landings in either region may change if future landings are much different (higher or lower) than they have been in the past, or if there are changes in other factors besides landings which impact price.

It is worth noting that the coastwide quota is regularly updated based on the best scientific information available. Commercial fishermen, dealers, and support businesses already experience year to year variation in revenues from black sea bass due to fluctuations in the annual coastwide quota, variations in price and market demand, and other factors. Changes in the state allocations may not have major impacts on revenues unless they result in changes that are outside the range of recent revenue fluctuations based on variations in the annual coastwide quota, prices, and other factors.
Although commercial fishermen and dealers must always make business decisions under uncertain future conditions, the state allocations provide some level of predictability. The allocations ensure that each state receives a certain percentage of the annual coastwide quota. Alternatives which use fixed allocation percentages (i.e., alternatives 1-A and 1-B if not used in combination with other alternatives) would provide a greater degree of predictability than alternatives which utilize variable or dynamic allocations (i.e., alternatives 1-C through 1-F). However, it is worth noting that all alternatives allow for some degree of stability and predictability as the allocations under all alternatives would always be at least partially based on the historical allocations. The details vary by alternative, as described in the Council's public hearing document and the Commission's draft addendum.

Predictability and stability in the allocations can be considered positive socioeconomic impacts. However, this could come at the cost of disparity between the quota allocations and local black sea bass availability, which can impact fisheries efficiency and therefore net revenues. Many of the alternatives allow for explicit consideration of these tradeoffs. Allocations which partially account for recent biomass distribution information (i.e., alternatives 1-C and 1-E and some combinations of sub-alternatives under alternatives 1-D and 1-F) could allow the commercial fishery to better take advantage of locally available fish, which could lead to increased efficiency and increased net revenues for some fishermen, compared to alternatives which do not account for biomass distribution (i.e., alternatives 1-A, 1-B, and some combinations of sub-alternatives under alternatives 1-D and 1-F).

It is worth noting that there are time lags between actual distribution changes, availability of data to measure those changes, and a management response to the data. Therefore, dynamic or variable allocations which take distribution information into account may not account for current distribution, as this is always unknown due to data lags; rather they would account for recent distribution.

Some combinations of sub-alternatives would allow for a faster pace of change in the allocations than others. For example, a faster pace of change could occur under certain combinations of DARA sub-alternatives under alternative 1-C, a lower trigger value under alternative 1-D, and a lower percentage under alternative 1-F. A slower pace of change could occur under other combinations of DARA sub-alternatives under alternative 1-C, a higher trigger under alternative 1-D, and a higher percentage under alternative 1-F. The socioeconomic impacts of allocation
changes could be lesser in magnitude under a slower pace of change compared to a faster pace of change. Depending on the scale of the change in allocations, a faster pace of change could result in short-term negative socioeconomic impacts in the form of fishery disruptions. For example, it could be challenging for commercial fishermen and dealers in states which quickly lose allocation to adapt to a sudden loss in revenue from black sea bass landings. In contrast, those in states that quickly gain allocation may not be able to immediately take full advantage of the sudden increase if they do not have sufficient time to adapt their practices. If the scale of the change is minor, the pace of the change will have less of an impact.
Large changes in the amount of quota allocated to a state may have different impacts for fishermen using trawl gear compared to pots/traps. As described in more detail in the public hearing document and Draft Addendum XXXIII, input from fishermen and federal vessel trip report data from 2010-2019 suggest that in years with higher coastwide quotas, bottom trawl gear accounted for a greater proportion and pots/traps accounted for a smaller proportion of total commercial landings compared to years with lower quotas. Trawl fishermen may be better able to take advantage of large increases in quota than pot/trap fishermen. For example, their ability to land higher volumes may allow them to counteract the impacts of any reductions in price by landing more fish. Pot/trap gear does not allow for as high of a volume of landings as trawl gear; therefore, pot/trap fishermen may not be able to adapt their fishing practices in the same way to mitigate for any reductions in price that may occur as a result of increased local black sea bass landings. For this reason, if changes to the state allocations allow for a notable increase in landings in a given state, trawl fishermen in that state may experience greater benefits than pot/trap fishermen.
Each state uses a different approach to managing their commercial fishery to ensure that landings can meet but not exceed their allocations. The economic impacts of changes to state allocations may vary in part based on how states adjust their management measures in response to these changes. For example, an increase in the possession limit could have different impacts than an extension of the open season. Fishermen in states that use Individual Transferable Quotas (ITQs) may be impacted differently than non-ITQ fishermen, and impacts may vary between gear types.
Under all alternatives, negligible socioeconomic impacts are expected for Maine and New Hampshire as neither state has reported commercial black sea bass landings since 2012 and neither have a declared interest in the fishery through the Commission process.

The alternatives for regional configurations (alternative set 1-G) are not expected to have meaningful socioeconomic impacts as they would only define the regions used under alternatives 1-C through 1-F.


Figure 1: Average annual ex-vessel price per pound for black sea bass compared to annual black sea bass commercial landings by region (ME-NY and NJ-NC), 2010-2019, with associated linear relationship. Prices are adjusted to 2019 values based on the Gross Domestic Product Price Deflator. Data source: dealer data (CFDERS, provided by the NOAA Fisheries Greater Atlantic Regional Fisheries Office Analysis and Program Support Division).

Impacts of Commercial State Quota Allocation Alternatives on the Black Sea Bass Stock
As described in more detail below, all the state quota allocation alternatives, including the no action alternative, are expected to result in moderate positive impacts on the black sea bass stock because they are all expected to maintain the currently positive stock status (i.e., not overfished, overfishing not occurring). Any slight differences in impacts on black sea bass stock status between the alternatives are expected to be negligible.
The greatest impacts of the fishery management program on the black sea bass stock derive from the total amount of dead catch that is removed from the population each year. This is primarily driven by the coastwide annual catch and landings limits. The state commercial quota allocations determine how the annual coastwide commercial quota is divided among the states. The commercial quota accounts for landings only. Coastwide commercial landings have been very close to the quota for several years; therefore, any changes to the state quota allocations are not likely to impact coastwide landings. Any changes in the distribution of these landings among the states are not expected to change the currently positive status of the black sea bass stock.

The alternatives consider whether the allocations should be modified to partially account for distribution of the stock. It is not expected that any of the alternatives would shift landings in such a way that fishing pressure is too high in one region compared to another such that negative impacts to the stock result.

Any impacts on dead discards resulting from changes in the state quota allocations are expected to mostly occur in fisheries that operate in state waters as opposed to federal waters. These impacts will be challenging to accurately predict. The commercial dead discard estimates used in the stock assessment and in management are derived from the federal observer program and from federal vessel trip reports. These data are only collected from vessels with federal permits. Although they are not collected from vessels which do not have federal permits and operate only in state waters, it is assumed that they are representative of the entire commercial fishery.

Fishermen with federal permits have much more flexibility in where they can catch and sell their fish compared to fishermen who are only permitted to operate in state waters. For these reasons, changes to the state quota allocations may not have notable impacts on where black sea bass are caught in federal waters, though they may impact where they are landed. Many commercial black sea bass fishermen hold permits to land their fish in multiple states, in addition to a federal permit. This affords them flexibility in both where they can catch and where they can land their fish. Fishermen decide where to fish based on multiple factors including expected availability of black sea bass and other target species, as well as non-target species they may wish to avoid. In some cases, black sea bass may not be the primary target species and fishermen may choose their fishing location based on other considerations, such as availability of a different primary species (e.g., summer flounder; MAFMC 2020a). Other factors such as state waters possession limits and open/closed seasons, variations in the price paid by commercial fish dealers, weather, and other factors also influence where fishermen fish and where they land their catch.
Fishermen who are only permitted to fish in state waters have less flexibility in where they can fish compared to those with federal permits. Therefore, it may be more challenging for state waters fishermen to avoid catching black sea bass and minimize discards of fish that cannot be landed, compared to federally permitted fishermen. An increase in the allocation to a state with high availability of black sea bass in state waters but a currently low allocation (e.g., Connecticut) might result in decreased discards in state waters as fishermen will be able to land more of the fish they previously would have discarded. However, the degree of this change is challenging to accurately predict based on available data and because an increased allocation may result in changes in fishing behavior. For example, if a higher allocation allows for a higher commercial possession limit or a longer open season in state waters, fishermen may target black sea bass to a greater extent, which may change patterns in discards and may not simply result in discards "turning into landings." In addition, an increase in the allocation in one state would require a decrease in allocation in one or more other states. Therefore, any decrease in discarding in one state may be partially offset by an increase in discards in another state, depending on the scale of the change in each state and other factors such as fishing behavior and differences in black sea bass availability in all impacted states.

In summary, changes in the state commercial quota allocations may result in changes in discards, mostly in state waters fisheries, and they may result in changes in the distribution of landings. However, they are not expected to change the overall amount of landings. None of these changes are expected to impact the stock status of black sea bass. The most recent stock assessment update indicates that the black sea bass stock was more than double the target level and overfishing was not occurring in 2018 (NEFSC 2019). This positive stock status is expected to be maintained under all the alternatives for the state allocation percentages, including the no action alternative. For this reason, all these alternatives are expected to have generally moderate positive impacts on the black sea bass stock.

## Alternative Set 2: Alternatives for Adding State Commercial Quota Allocations to the Council's Fishery Management Plan

The following alternatives are under consideration regarding whether the state commercial quota allocations should be added to the Council's FMP. Each alternative is described in more detail in the Council's public hearing document and the Commission's draft addendum.

2-A. No action. Under this alternative, the commercial state quota allocations would not be added to the Council's FMP and would remain only in the Commission's FMP. Future changes to the state allocations could be made by a vote of the Board only. Transfers of quota between states would continue to be managed by the Commission.

2-B. Add allocations to Council FMP. Under this alternative, the commercial state quota allocations for black sea bass would be included in both the Commission and Council FMPs. Future changes to the state allocations would be made by a vote of the Board and Council. Transfers of quota between states would be managed by NMFS.

Sub-alternative 2-B-1. States overage paybacks only if the coastwide quota is exceeded. This is the current process for state-level quota overages under the Commission's FMP.

Sub-alternative 2-B-2. States always pay back overages regardless of whether the coastwide quota was exceeded.
Socioeconomic Impacts of Alternatives for Adding State Commercial Quota Allocations to the Council's FMP

The socioeconomic impacts of the alternatives in this alternative set derive from differences in how quota transfers between states would be managed and the potential frequency of state quota overage paybacks.
Under alternative 2-B, the state quota allocations would be added to the Council's FMP and transfers of quota between states would be managed by the National Marine Fisheries Service (NMFS). If the state allocations remain only in the Commission's FMP (alternative 2-A), then the Commission would continue to manage quota transfers. This would allow greater flexibility in the use of late in the year transfers than under alternative 2-B. For example, the Commission allows transfers to occur at any time up to 45 days after the last day of the fishing season. NMFS allows late season quota transfers for other species; however, they are limited to unforeseeable late season events. Generally, the deadline for a state to submit routine transfer requests is the close of business on December 16. While the Commission allows transfers at the end or after the fishing season to help states balance quota overages, NMFS would likely not allow for such transfers unless the overage was unforeseen in the last two weeks of the fishery. The additional restrictions on late in the year transfers under alternative 2-B compared to alternative 2-A should have limited impacts as states should be closely monitoring their landings throughout the year and taking action as necessary to prevent state-level overages, regardless of which agency manages the transfers.
Alternative 2-B-1 would continue the current practice of requiring paybacks of state quota overages only if the coastwide quota has also been exceeded. This is expected to have lesser negative socioeconomic impacts than alternative 2-B-2, which would require paybacks of statelevel overages regardless of if the coastwide quota was exceeded, as it would require less frequent paybacks. Under either alternative, overage paybacks would result in a reduction in potential revenues from black sea bass in the year in which the payback is applied. This can be considered a negative socioeconomic impact, though it could be partially offset by higher revenues in the year in which the overage occurred.

## Impacts of Alternatives for Adding State Commercial Quota Allocations to the Council's FMP on the Black Sea Bass Stock

None of the alternatives in alternative set 2 are expected to meaningfully impact fishing mortality or stock status for black sea bass. Under all alternatives, the currently positive stock status is expected to be maintained.

## Alternative Set 3: Alternatives for Federal In-Season Closures

The following alternatives are under consideration regarding federal in-season closures. Each alternative is described in more detail in the Council's public hearing document and the Commission's draft addendum.

3-A. No action. Under this alternative, a coastwide federal in-season closure would occur when landings are projected to exceed the coastwide quota, as is currently required in the federal regulations.

3-B. In-season closure at quota plus buffer. Under this alternative, a coastwide federal inseason closure would occur when landings are projected to exceed the commercial quota plus a buffer of up to 5\%. The appropriate buffer would be determined through the annual specifications process.

3-C. In-season closure at ACL. Under this alternative, a coastwide federal in-season closure would occur when the commercial annual catch limit (ACL) is projected to be exceeded.

## Socioeconomic Impacts of Alternatives for Federal In-Season Closures

It is important to note that the commercial fishery has not closed in-season to date. States have effectively monitored and controlled their harvest and used transfers to address minor state-level overages while preventing an overage of the coastwide quota. Therefore, any differences between these three alternatives are theoretical.
Under all alternatives in this alternative set, negative socioeconomic impacts would be expected when an in-season closure occurs, as this would result in reduced potential revenues from black sea bass landings, especially in any states that have not fully landed their allocations. Alternative 3-A could result in more frequent in-season closures than 3-B; therefore, it could have greater negative socioeconomic impacts due to lost revenues.
As described in the public hearing document/draft addendum, it is unclear how alternative 3-C would be put into practice as discards in weight are not monitored in-season. Therefore, it is challenging to predict if this could result in more or less frequent in-season closures than alternatives 3-A or 3-B. It could have less predictability than alternatives 3-A and 3-B, which could be considered a negative socioeconomic impact. For example, states monitor their landings in-season, but assumptions about discards would need to be made by NMFS, which may be more challenging for states to track in-season.

## Impacts of Alternatives for Federal In-Season Closures on the Black Sea Bass Stock

As previously stated, the commercial fishery has not closed in-season to date. States have effectively monitored and controlled their harvest and used transfers to address minor state-level overages while preventing an overage of the coastwide quota. Therefore, any differences between these three alternatives are theoretical.

Moderate positive impacts to the black sea bass stock are expected under alternative 3-A as this alternative would not change the regulations regarding federal in-season closures, which have been in place for many years. This would not be expected to result in a change in stock status; the currently positive stock status would be expected to be maintained.
Alternative 3-B would allow quota overages, which could put the stock at risk; however, the additional risk is expected to be minimal as states would still close when their quotas are reached and states would still be required to pay back overages. In addition, the overall coastwide quota overage amount would be limited to $5 \%$ before an in-season closure occurred. Therefore, this is
expected to have moderate positive impacts on the stock (though of a slightly lesser magnitude than alternative 3-A) by maintaining the currently positive stock status.

As described in the public hearing document and Draft Addendum XXXIII, it is unclear how alternative 3-C would be put into practice as discards in weight are not monitored in-season. Depending on how this is addressed, this alternative could have a higher likelihood of resulting in ACL overages compared to alternatives 3-A and 3-B. Notable negative impacts on the stock would not be expected as states would still close when their quotas are reached and states would still be required to pay back overages; therefore, major ACL overages would not be expected. For this reason, the currently positive stock status could be maintained under this alternative.

## References

ASMFC (Atlantic States Marine Fisheries Commission). 2020. Draft Addendum XXXIII to the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan for Public Comment. Available at:
http://www.asmfc.org/files/PublicInput/BSB_DraftAddendumXXXIII_PublicComment.pdf.
MAFMC (Mid-Atlantic Fishery Management Council). 2020a. Summer Flounder, Scup, and Black Sea Bass Fishery Performance Report, June 2020. Available at:
https://www.mafmc.org/s/SFSBSB_FPR June_2020_FINAL.pdf
MAFMC (Mid-Atlantic Fishery Management Council). 2020b. Black Sea Bass Commercial State Allocation Amendment Public Hearing Document. Available at: https://www.mafmc.org/s/BSB_com_state_allocation_PHD.pdf

NEFSC (Northeast Fisheries Science Center). 2019. Operational Assessment of the Black Sea Bass, Scup, Bluefish, and Monkfish Stocks, Updated Through 2018. Prepublication copy prepared for use by Fishery Management Council staff and SSC. 164 p. Available at: http://www.mafmc.org/s/Operational-Assessments-for-Black-Sea-Bass_Scup_Bluefish.pdf.

| From: | Bonnie Brady |
| :--- | :--- |
| To: | Beaty, Julia |
| Subject: | BSB how"s this? |
| Date: | Tuesday, December 1, 2020 4:43:03 PM |

Bonnie Brady sent comments that the LICFA supports either a DARA approach (Option C under Section 3.1) for state allocations, with sub-options C1-B, C2-B, and C3-A and C4-C or a Trigger approach E (Increase to CT and NY first, ) and regional configuration G2. They also support status quo for Commission-only management of the state allocations (Option A, Section 3.2.1.).

| From: | Lames Fletcher |
| :--- | :--- |
| To: | Beaty, Julia; Moore, Christopher |
| Subject: | Re: CT \& northern states black sea bass |
| Date: | Wednesday, November 25, 2020 9:41:59 AM |

Yes please add \{Make a mandatory discussion time\} 10 to 15 minutes have copies of YAMAHA FISHERIES JOURNAL NO. 37 OFFERS A FLOUNDER OUTLINE ON HOW TO INCREASE CULTURE DIFFERENT SPECIES BUT FLAT FISH! Should review ASMFC \& Magnuson that allow stock enhance! POINT IS USE TEMPERATURE \& LIGHT TO PRODUCE MOSTLY FEMALES! PRESENT MANAGEMENT HAS TARGETED THE FASTEST GROWING FEMALES *** REVERSE INCORRECT PAST MANAGEMENT. ***
WOULD LIKE SSC [ same stupid conclusion group"] to state ON RECORD that enhancement of stock will not work using billions of fertilized eggs.!
COUNCIL SHOULD ASK DEPARTMENT OF STATE \& COMMERCE TO ATTEND MEETING TO CONFIRM DEPARTMENTS HISTORIC POSSESSIONS ON IMPORTS.

## HAPPY THANKSGIVING BE SAFE!

On 11/23/2020 1:29 PM, Beaty, Julia wrote:
Hi James,
Would you like this added to the briefing book for the December joint meeting as an additional advisor comment?

Thanks,
Julia

Julia Beaty
Fishery Management Specialist
Mid-Atlantic Fishery Management Council
800 N. State Street, Suite 201
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302-526-5250
ibeaty@mafmc.org
Pronouns: She/her/hers

From: James Fletcher [bamboosavefish@gmail.com](mailto:bamboosavefish@gmail.com)
Sent: Friday, November 20, 2020 8:33 AM
To: Beaty, Julia <jbeaty@mafmc.org $\geq$; Moore, Christopher <cmoore@mafmc.org $\geq$;
Batsavage, Chris [chris.batsavage@ncdenr.gov](mailto:chris.batsavage@ncdenr.gov)
Subject: CT \& northern states black sea bass

WHY not spawn BSB to release the eggs in estuaries? release the fertilized eggs on flood tides. Management is playing a numbers game to restrict commercial harvest: So spawn a billion black sea bass eggs \& release in CT brackish waters, calculate survival \&
allow a 5\% increase in CT landings. Utilize spawning to add identifiable physical characteristic to spawned eggs. Use temperature to create mostly female bass that will not change sex. For spawning utilize cement tanks not plastic or epoxie ? plastic \{ follow Japan example of enhancement.
CT could then justify increased landings. The spawning expertise already exist world wide, NO NEED TO RETRAIN NMFS OR CT PEOPLE! Allow northern states to begin stock enhancement using monies from fisheries licenses \& sale of regulatory by catch, \{ UNFA has a proposal how to obtain money from research set aside that can be applied for regulatory by catch ] Recreational licenses could add 15\% for spawning facilities in Northern States.
MAJORITY SAID STATUS QUO stop process. BEGIN STOCK ENHANCEMENT FOR CT. \& NORTHERN STATES INCREASE .

NOW ALLOCATION: DIFFERENT AMENDMENT OR PLAN **** 6\% of population recreationally fish in EEZ until all fish caught by recreational fishers is UTILIZED FOR FOOD the share should only be 6\%. NO DISCARDS! *****
TOTAL LENGTH IS ANSWER ALONG WITH ELECTRONIC REPORTING.
THE COMMERCIAL WILL BE FORCED TO ELECTRONIC REPORT BY NOVEMBER 2021. RECREATIONAL FISHERS IN EEZ MUST BE REQUIRED TO ELECTRONIC REPORT BY NOVEMBER 2021. COMPARABLE REPORTING IS REQUIRED BY MAGUNSON ACT!
THINK OUTSIDE OF A CIRCLE!

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

## MEMORANDUM

Date: $\quad$ December 4, 2020
To: Council
From: Chris Moore
Subject: Executive Director's Report

The following materials are enclosed for Council review at the December 2020 Council Meeting during the Executive Director's Report:

1. Status of Council Actions Under Development
2. Status of Completed Council Actions and Specifications
3. 2021 Meeting Schedule
4. 2022 Meeting Schedule
5. 2021 Stock Assessment Schedule
6. NRCC Fall Meeting Agenda
7. Staff Memo: Update on research project entitled, "Surfclam species diagnostics and population connectivity estimates to inform management"
8. Staff Memo: SBRM 3-Year Review
9. Draft Letter to Secretary of Interior David Bernhardt Regarding USFWS Licensing and Inspection Requirements for U.S. Squid Fisheries

## Status of Council Actions Under Development

AS OF 12/1/20

| 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 revise the commercial and recreational sector allocations for summer flounder, scup, and black sea bass. This action was initiated in part to address the allocation-related impacts of the revised recreational data from MRIP. <br> http://www.mafmc.org/actions/sfsbsb-allocation-amendment | The Council and Board are scheduled to approve a public hearing document at the joint December 2020 meeting. | Dancy/Coutre/ Beaty |
|  | Black Sea Bass <br> Commercial State <br> Allocation <br> Amendment | This joint MAFMC/ASMFC action will consider adjusting the allocations of the black sea bass commercial quota among states and whether the allocations should be managed jointly by the Council and Commission. http://www.mafmc.org/actions/bsb-commercial-allocation | The Council and Board expect to take final action at the December 2020 meeting. | Beaty |
| Bluefish | Bluefish <br> Allocation and <br> Rebuilding <br> Amendment | This joint MAFMC/ASMFC amendment considers potential revisions to the allocation of Atlantic bluefish between the commercial and recreational fisheries and the commercial allocations to the states. This action will also review the goals and objectives of the bluefish FMP and the quota transfer processes and establish a rebuilding plan for bluefish. <br> http://www.mafmc.org/actions/bluefish-allocation-amendment | The Council and Board expect to approve a public hearing document at the joint February meeting | Seeley |
| Summer <br> Flounder, Scup, Black Sea Bass and Bluefish | Recreational <br> Reform <br> Framework and <br> Technical <br> Guidance <br> Documents | The Council and Board initiated a framework/addendum to address the following topics for summer flounder, scup, black sea bass, and bluefish: (1) better incorporating MRIP uncertainty into the management process; (2) guidelines for maintaining status quo recreational management measures (i.e., bag, size, and season limits) from one year to the next; (3) a process for setting multi-year recreational management measures; (4) changes to the timing of the recommendation for federal waters recreational management measures; and (5) a proposal put forward by six recreational organizations called a harvest control rule. The Council and Board may | The Council and Board initiated this action at the joint October 2020 meeting. At the December meeting the Council and Board will receive an update and consider whether some topics can be addressed through technical guidance documents, rather than a framework/addendum. | Beaty |


| FMP | Action | Description | Status |  |
| :--- | :--- | :--- | :--- | :--- |
|  |  | consider addressing some of these topics through a technical guidance <br> document, rather than a framework/addendum. |  |  |
|  | 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 Board initiated this <br> action at the joint October 2020 <br> meeting. Scoping hearings may take <br> place in mid-2021. | 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, <br> catches including both surfclams and ocean quahogs have become <br> more 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 |
| 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 12/1/2020

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."

| Status | Amendment/Framework | Action <br> Number | Council <br> Approval | Initial <br> Submission | Final <br> Submission | NOA <br> Published | Proposed <br> Rule <br> Published | Approval/ <br> Disapproval <br> Letter | Final Rule Published | Regs <br> Effective | Notes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Open | Summer Flounder Commercial Issues and Goals and Objectives Amendment | TBD | 3/6/19 | 3/17/20 | 5/7/20 | 7/29/20 | 8/12/20 | 10/19/20 |  |  |  |
| Open | Excessive Shares Amendment | TBD | 12/9/19 | 4/24/20 | 9/25/20 |  |  |  |  |  |  |
| Open | Omnibus Risk Policy Framework | TBD | 12/9/19 | 8/5/20 | 10/16/20 |  | 11/12/20 |  |  |  | Public comment period closed 11/26/2020 |
| Open | Omnibus Commercial eVTR Framework | TBD | MAFMC: <br> 12/11/19; <br> NEFMC: <br> 1/29/20 | 3/4/20 | 4/14/20 | 7/17/20 | 7/17/20 |  | 11/10/20 | 11/10/21 |  |
| Open | MSB FMP <br> Goals/Objectives and IIlex Permits Amendment | MSB AM 22 | 7/16/20 |  |  |  |  |  |  |  |  |

Timeline and Status of Current and Upcoming Specifications for MAFMC Fisheries
As of $12 / 1 / 20$

| Current Specifications | Year(s) | Council <br> Approval | Initial <br> Submission | Final Submission | Proposed <br> Rule | Final Rule | Regs <br> Effective | Notes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Golden Tilefish | 2021-2022 | 4/8/20 | 5/11/20 | 7/21/20 | 11/13/20 |  |  |  |
| 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 |  |  |  |  |  |
| Surfclam and Ocean Quahog | 2018-2020 | 6/6/17 | 8/14/17 | 9/22/17 | 12/8/17 | 2/6/18 | 3/8/18 | 2020 specs were reviewed in June 2019. No changes were recommended. |
| Longfin Squid | 2021-2023 | 8/10/20 | 10/14/20 |  |  |  |  |  |
| Butterfish | 2021-2022 | 8/10/20 | 10/14/20 |  |  |  |  |  |
| Illex Squid | 2020-2021 | 6/17/20 | 10/14/20 |  |  |  |  | NMFS already implemented 2020 via inseason action and SIR completed by staff - 2021 in same EA as MSB approved in Aue |
| Atlantic Mackerel (including RH/S cap) | 2021-2022 | 8/10/20 | 10/14/20 |  |  |  |  |  |
| 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 | 2020-2021 | 12/10/19 | 1/23/20 | 3/19/20 | 5/25/20 | 6/29/20 | 6/29/20 |  |
| Bluefish | 2021 (revised) | 8/11/20 |  |  | 11/4/20 |  |  |  |
| Summer Flounder, Scup, Black Sea Bass | 2021 (revised) | 8/11/20 | 9/30/20 | 11/20/20 | 11/17/20 |  |  |  |
| Spiny Dogfish | 2021-2022 | 10/6/20 |  |  |  |  |  |  |

## Recreational Management Measures

| Current Management Measures | Year(s) | Council Approval | Initial <br> Submission | Final <br> Submission | Proposed <br> Rule | Final Rule | Regs <br> Effective | Notes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Summer flounder recreational measures | 2020 | 12/10/19 | 1/22/20 | 1/22/20 | 4/6/20 | 6/18/20 | 6/18/20 | Rulemaking required each year to continue use of conservation equivalency |
| Black sea bass recreational measures | 2020 | 2/14/18 | 3/5/18 | 4/10/18 | 4/11/18 | 5/31/18 | 5/31/18 | Reviewed in 2019. No changes from prevous year's measures. |
| Scup recreational measures | 2020 | 12/10/14 | 3/20/15 |  | 5/5/15 | 6/19/15 | 6/19/15 | Reviewed in 2019. No changes from prevous year's measures. |
| Bluefish recreational measures | 2020 | 12/10/19 | 1/23/20 | 3/19/20 | 5/25/20 | 6/29/20 | 6/29/20 | Recreational management measures were set through the 2020-2021 specifications process. |


| MAFMC 2021 COUNCIL MEETINGS |  |
| :--- | :--- |
| February 9-11, 2021 | WEBINAR |
| April 6-8, 2021 | Seaview, a Dolce Hotel <br> 401 South New York Rd. <br> Galloway, NJ 08205 <br> 609-652-1800 |
| June 8-10, 2021 | Hilton Virginia Beach Oceanfront <br> 3001 Atlantic Ave <br> Virginia Beach, VA <br> 757-213-3000 |
| August 9-12, 2021 | The Notary Hotel <br> 21 N. Juniper St. <br> Philadelphia, PA <br> 215-496-3200 |
| October 5-7, 2021 | Yotel Hotel <br> 570 10th Ave. <br> New York, NY 10036 <br> 646-449-7700 |
| December 13-16, 2021 | Westin Annapolis <br> 100 Westgate Circle <br> Annapolis, MD 21401 <br> 410-972-4300 |

# MAFMC 2022 Council Meeting Dates: 

February 8-10, 2022

April 12-14, 2022

June 7-9, 2022

August 8-11, 2022

October 4-6, 2022

December 12-15, 2022

## 2021 NRCC Stock Assessment Schedule

2021

|  | Species/Topic | Stock Area | Management <br> Organization(s) |
| :--- | :--- | :--- | :--- |
| July (usually <br> March) <br> Research Track | Haddock | Gulf of Maine, Georges Bank, Eastern <br> Georges Bank | NEFMC |
|  | Atlantic mackerel |  | MAFMC |
|  | Black sea bass |  | MAFMC/ASMFC |
|  | Bluefish |  | MAFMC/ASMFC |
|  | Golden tilefish |  | MAFMC |
|  | Scup | Summer flounder | MAFMC/ASMFC |
| July <br> Joint US/Canada <br> Assessments <br> Transboundary <br> Resources | Atlantic cod | Yellowtail flounder | Gastern Georges Bank |
|  | Gaddock |  | MAFMC/ASMFC |
|  | Atlantic cod | Atlantic cod | NEFMC |
|  | Haddock | Georges Bank | NEFMC |
|  | Haddock | Gulf of Maine | NEFMC |
| November <br> Research Track | Butterfish and Northern <br> shortfin squid | Gulf of Maine | NEFMC |

[^33] Commission. All other assessments are conducted by the Northeast Fisheries Science Center.

## Appendix: Stock Assessment Type Definitions

## Management Track Assessments

Management track assessments provide routine, scheduled, and updated advice to directly inform management actions. These assessments are designed to be:

- Simple, quick, efficient, and flexible: and
- Able to incorporate new information on a regular cycle.

Management track assessments ensure that stock status is updated on a regular and predictable basis.

## Research Track Assessments

Research track assessments are complex scientific efforts that are designed to be carried out over several years. They can:

- Focus on research topics or on one or more individual stocks:
- Evaluate an issue or new model that could apply to many stocks: and/or
- Consider extensive changes in data, model, or stock structure.

Research assessments can provide the basis for future management assessments.

# 2020 FALL NRCC MEETING AGENDA <br> via Google Meet <br> All times are approximate 

## Monday, November 9

9:00 a.m. - 9:15 a.m.

1. Welcome, Introductions, Announcements
(Moore, Sullivan)
9:15 a.m. - 10:45 a.m.
2. Aquaculture

Discussion leader: Madley/Sciallaci

- Staff and reorganization of the Habitat and Ecosystem Services Division (HESD)
- Plans for aquaculture opportunity areas
- Implications of Gulf of Mexico litigation
- Council/Commission involvement in site screening process

10:45 a.m. - 11:00 a.m. Break
11:00 a.m. - 12:00 p.m.
3. SAFE Reports

Discussion leader: Gilbert

- GARFO hosts the SAFE Reports online. This has become problematic with website redesign and 508 compliance.

12:00 p.m. - 1:00 p.m. Lunch
1:00 p.m. - 1:30 p.m.
4. Ropeless Technology

Discussion leader: Anderson/Asaro

- What is ropeless gear and how is it being used by the industry.

1:30 p.m. - 2:00 p.m.
5. Offshore Wind Updates

Discussion leader: Pentony/Hare
2:00 p.m. - 2:15 p.m. Break
2:15 p.m. - 2:30 p.m.
6. FDDI Update

Discussion leader: Gouveia/McCarthy

2:30 p.m. - 3:00 p.m.
7. Scenario Planning

Discussion leader: Moore

- Update on role of TNC
- Update on SAFMC interest
- Appointment of core team

3:00 p.m. - 3:30 p.m.
7. BSIA Framework

Discussion leader: Kelly/Simpkins

- Update on SSC point(s) of contact

3:30 p.m. Adjourn Day 1

## Tuesday, November 10

9:00 p.m. - 2:00 p.m. (Break as needed, lunch at noon)
8. Stock Assessments

Discussion leader: Simpkins

- 2020 assessment process: Challenges, adaptations, future suggestions
- 2021 preparations: COVID data gaps and management track plans
- Future planning: Research track, communications, plan for more detailed process review.

2:00 p.m. - 2:30 p.m.
9. Gear Conflicts

Discussion leader: Nies/Reid

- Gear conflicts between fishermen

2:30 p.m. - 3:00 p.m.
10. Joint FMP Management

Discussion leader: Nies

- Convening committees of the whole

3:00 p.m. - 3:00 p.m.
11. Meeting wrap-up and Other Business

- Complete any unfinished discussions or unresolved new business
- Review action items and assignments
- Identify Spring 2021 meeting date (NEFSC chair)
- Adjourn meeting

3:30 p.m. Meeting adjourns

# MEMORANDUM 

Date: $\quad$ November 30, 2020
To: Chris Moore, Executive Director
From: Jessica Coakley, Staff
Subject: Update on research project entitled, "Surfclam species diagnostics and population connectivity estimates to inform management"

The Council contracted Dr. Matthew Hare (Cornell University) to examine species connectivity among the commercially important Atlantic surfclam, Spisula solidissima solidissima, and its sister-taxon the Southern surfclam, Spisula solidissima similis. Surfclam genetic samples were obtained from Georges Bank in 2019 during the Northeast Fisheries Science Center (NEFSC) clam survey. However, no federal or state clam surveys were conducted in 2020. As a result, additional samples south of Georges Bank were needed to enable completion of this project by March 2021. While the study had existing samples from about 25 locations, the Council staff, Dr. Daniel Hennen (NEFSC), and Dr. Hare considered options to address those sampling gaps with commercially harvested clams.

Samuel Martin at Atlantic Capes Fisheries, Inc. provided Nicole Charriere (NEFSC) with surfclams from the Nantucket Shoals area for the genetics sampling kits. In addition, Thomas Dameron at Surfside Foods provided Dr. Daphne Munroe from Rutgers University with surfclams from New Jersey to complete those kits (see "Shucking Party" picture below).

We greatly appreciated the support and cooperation between the NEFSC, Atlantic Capes Inc., Surfside Foods, and Rutgers, to ensure those samples were made available to complete this project.


# MEMORANDUM 

Date: $\quad$ November 24, 2020
To: Council
From: J. Didden
Subject: SBRM 3-Year Review

First, hearty thanks and acknowledgement to chair Susan Wigley and other Standardized Bycatch Reporting Methodology (SBRM) 3-Year Review team members for all the work that went into this review. The Standardized Bycatch Reporting Methodology 3-year Review Report covering the 2018-2020 SBRM years will soon be published to the NEFSC's website as a NOAA Technical Memorandum (https://www.fisheries.noaa.gov/resource/document/northeast-technical-memorandum-series). Upon official publication, a link will be distributed to the Council. A variety of recommendations are made in the report, excerpted below. If the Council would like additional details, a future presentation can be arranged.

- The SBRM FMAT/PDT endorses the refinements described within the 2018-2020 annual reports and supports applying refinements when needed and documenting the change in the annual reports. The refinements and their description ensures transparency and improvement to the regional SBRM. The SBRM FMAT/PDT also recommends accounting for differences in taxon strata, when possible. Accounting for differences in taxon strata may be useful when additional species are included in the SBRM and could be an operational consideration when evaluating a species to be included in the SBRM. Adding new species groups with different stratification adds more complexity when combining the sea days required to monitor all species within the SBRM.
- The SBRM FMAT/PDT recommends that rarity filters be developed and implemented, as appropriate, for other ESA-listed species such as Atlantic salmon and sturgeon. The SBRM FMAT/PDT also recommends NEFSC and GARFO staff finalize a draft guidance document for adding new species to SBRM. This document describes a process of adding new species, including the considerations that may depend on several factors such as: operational factors (e.g., data availability, stratification, estimation methods, filters, frequency of analyses), policy factors, spatial management factors (e.g., distinct population segments), and legal factors. Consideration of non-federally managed species would be beyond the scope of the draft guidance document. The draft guidance document would be considered by NEFSC, GARFO, and NOAA General Council (Northeast Section) when determining if a new species can be added. Supporting information on the species encountered on observed trips could be obtained from this report and incorporated into the draft guidance document as part of the data availability for a given FMP or ESA-listed species.
- SBRM FMAT/PDT recommends expanding existing VTR audits to reduce and/or prevent "erroneous" fleets. Expanded VTR audits could focus primarily on gear type and mesh size (stratification variables) and could include data leveraging between databases, cross-checking regulations, and use of vessel profiles. One example of data leveraging to improve accurate master VTR data would be to use the observer data to cross-check the number of gear-mesh combinations used during a trip. Additionally, gear code consistency is needed between the fishery dependent data collection systems.
- The SBRM FMAT/PDT recommends the following planned changes (some of which are planned to be implemented in 2021 SBRM annual analysis)
- The inclusion of chub mackerel in the squid-butterfish-mackerel species group in 2021 SBRM analyses;
- The consideration of ESA-list species such as sturgeon (Atlantic sturgeon and shortnose sturgeon) as species groups;
- Expanding the sampling frame for New England and Mid-Atlantic lobster pot fleets to include all vessels using lobster pot gear in future SBRM analyses; and Utilize a PTNS-like system for all fleets as identified in the regional fishery dependent data initiative (implementation date to be determined).
- The SBRM FMAT/PDT recommends continued exclusion of the individual FMP compliance monitoring program trips from future SBRM annual analysis of discard estimation, precision and sample size analyses for fish.
- The SBRM FMAT/PDT recommends continued use of importance filters for fish/invertebrates and rarity filters for sea turtles. The SBRM Omnibus Amendment requires $30 \%$ CV or less to be attained for each species group within that fleet. Some fleet/species combinations contribute very little to the total mortality or discard of the species, but may require significant resources to characterize the precision of the estimate. Thus, the use of the importance filter is a key feature to the SBRM in that it focuses the sampling to fleets where it is needed most and not wasted on small imprecisely estimated discards.
- The SBRM FMAT/PDT recommends continued use of the formulaic prioritization process for transparent determination of how limited funds are allocated. The use of the formulaic prioritization process since SBRM 2014 results in more fleets with allocated sea days. However, there were instances in which some fleets did not receive the number of sea days needed or initially estimated. A funding shortfall triggered the prioritization process in which 1 fleet in SBRM 2019 and 4 fleets in SBRM 2020 did not receive sufficient sea days. Because of allocation decisions made prior to the prioritization process, 2 fleets in SBRM 2018 did not receive the full number of needed sea days.
- The SBRM FMAT/PDT recommends continued use of the most recent data available to track changes in discarding because of changes in management or fleet behavior when allocating future observer coverage. While an analysis of variance stability was not undertaken in this review, indirect evidence from this review as well as direct evidence from past reviews suggests the assumption that discard variances are stable over time is valid, particularly for a one-year lag. If fishing behavior changes because of a regulatory change or other reasons, then the relationship between years may weaken in the year following the regulatory change. A similar weakening in the relationship may occur when fish populations change - for example, if a strong year class is moving through the
fishery. These types of analyses should be conducted on a periodic basis. Conducting sample size analyses annually minimizes the time to a one-year lag.
- The SBRM FMAT/PDT recommends continued exploration of potential biases in the data collection process and examination of how these might impact sea day allocations. The SBRM FMAT/PDT acknowledges that a comprehensive examination of potential bias in all SBRM fleets is a large task and has been too large to completely accomplish within the annual reporting and 3 year review reporting cycles. Hence, the SBRM FMAT/PDT recommends a dedicated group be formed to examine this topic in detail, such as a Research Track special topic assessment. No evidence of systematic vessel selection bias and no strong evidence of observer bias was detected in the analyses conducted for this report. Recent studies examining observer data for potential bias have mostly focused on groundfish fleets (sub-components of selected fleets within SBRM). Future work examining all fleets could consider additional trip outcome metrics such as mean number of species reported, number of areas fished, and an evaluation of minimum observer sample size (e.g., could fleets with less than 30 observed trips be considered).

The SBRM provides a general structure for defining fisheries into homogeneous groups and objectively allocating observer coverage based on prior information to achieve a preselected precision criterion ( $30 \% \mathrm{CV}$ ), while following a predetermined set of rules to eliminate fleets with highly imprecise estimates of small amounts of discards. This allows for changes in sea day allocation from year to year as new information is obtained. The general structure helps identify gaps in existing coverage and the tradeoffs associated with coverage levels for different species. Additionally, the incorporation of annual refinements supports continual improvements. These refinements address new issues as they arise because of changes in fleet behavior, regulatory changes, and/or advances in statistical techniques. This 3 year review allows examination of the successes and challenges remaining.

The required observer coverage by fleet over the 3 years are generally similar, with some exceptions. The sea day requirements for a particular fleet to achieve the desired $30 \% \mathrm{CV}$ can vary from year-to-year as the result of sampling, fishing practices, fish population demographics, and other factors that vary from year to year. The number of observer sea days required might change when the total landings, total discards, and/or the relative amount of discards within a fleet change for a species group, because this information is used in determining the relative importance of the discards for the species group and fleet. Past analyses have revealed that one of the methodology's main assumptions, variance stability from year to year, is met. However, the effectiveness of the SBRM does not hinge solely on the methodology's assumptions. The amount of funding to support the required sea days is equally important, as well as the ability to accomplish the funded sea days.

Overall, the SBRM continues to represent one of the most comprehensive programs for planning and executing observer monitoring coverage of federally managed fisheries. NMFS made a formal determination on May 7, 2020 that the SBRM is consistent and sufficient with the national guidelines for an SBRM as codified in the Code of Federal Regulations, Title 50 Part 600.1610(a). Following the implementation of the 2015 SBRM Omnibus Amendment, the second 3 years of the program, summarized in this report, illustrate the utility of the approach for monitoring discards in these fisheries and the real-world limitations of implementing a "perfect" system. The SBRM process provides a consistent formulaic approach to allocate sea days among fleets to stay within the available funds while achieving the precision standard for almost all species groups/fleet combinations.


MID-ATLANTIC
MANAGEMENT
COUNCIL

December X, 2020

The Honorable David L. Bernhardt
Secretary of the Interior
United States Department of the Interior
1849 C. Street, N.W.
Washington, DC 20230
Subject: USFWS Licensing and Inspection Requirements for U.S. Squid Fisheries
Dear Secretary Bernhardt:
I am writing to you on behalf of the Mid-Atlantic Fishery Management Council ("Council"), one of eight regional fishery management councils responsible for managing fisheries in the federal Exclusive Economic Zone in accordance with the Magnuson-Stevens Fishery Conservation and Management Act (MSA). Pursuant to President Trump's Executive Order 13921 on Promoting American Seafood Competitiveness and Economic Growth, the Council recently developed a prioritized list of recommendations to reduce burdens on domestic fishing and to increase production within sustainable fisheries. This list was transmitted on November 2, 2020 to Mr. Chris Oliver, Assistant Administrator for NOAA Fisheries.

One of the highest priority issues identified in our recommendations concerns the inclusion of U.S. squid fishery products in the U.S. Fish and Wildlife Service (USFWS) inspection and user fee system for monitoring wildlife imports and exports. Under current USFWS regulations outlined in 50 CFR Parts $10-14$, U.S. squid producers are subject to redundant, time-consuming, and costly licensing and inspection requirements. Virtually all other U.S. commercial fishery products are exempt from these regulations, which are intended to prevent the unauthorized trade of endangered and protected wildlife. We recommend that squid be reclassified as either "shellfish" or "fishery products" and therefore exempt from the USFWS inspection and user fee system.

The Mid-Atlantic and Pacific Fishery Management Councils have both identified this issue in our responses to President Trump's Executive Order. The purpose of this letter is to provide additional information to support the Mid-Atlantic Council's recommendation on the matter.

USFWS Shellfish and Fishery Product Exemption - Background and Terminology
The Endangered Species Act of 1973 (ESA) provides an exemption from import/export licensing and inspection requirements for certain "shellfish and fishery products" if they are intended for human or animal consumption, not listed as injurious under the Lacey Act, and not listed under the ESA or the Convention on International Trade in Endangered Species (CITES). This exemption currently applies to the vast majority of domestic fisheries, but it does not apply to the three commercially harvested U.S. squid fisheries. While squid meet all of the criteria described above, the USFWS has concluded that squid are neither shellfish nor fishery products. This determination appears to be based on narrow
definitions of "shellfish" and "fishery product" that are inconsistent with the common use of these terms in most other contexts.

The USFWS currently uses the following definition of Shellfish (50 CFR 10.12):
"Shellfish means an aquatic invertebrate animal having a shell, including, but not limited to, (a) an oyster, clam, or other mollusk; and (b) a lobster or other crustacean; or any part, product, egg, or offspring thereof, or the dead body or parts thereof (excluding fossils), whether or not included in a manufactured product or in a processed food product."

The USFWS interprets the above definition to exclude species in the molluscan class Cephalopoda, including squid, octopods, and cuttlefish. This interpretation is inconsistent with the definitions of "shellfish" used by the National Marine Fisheries Service (NMFS) and the United Nations Food and Agriculture Organization, both of which broadly define the term to include all aquatic mollusks and crustaceans. In 2008, NMFS noted this inconsistency in a comment letter submitted to USFWS ${ }^{1}$ :
"Serious questions have arisen from seafood importers in the northeast as to whether this definition of shellfish should also include wildlife species in the class Cephalopoda (squids, octopods, and cuttlefish). NMFS understanding is that organisms in this class are shellfish. According to the definition listed in the NMFS 2006 Glossary, 'Shellfish include both mollusks, such as clams, and crustaceans, such as lobsters.' This definition was sourced from the United Nations Food and Agriculture Organization - Fisheries Glossary. Shellfish are further defined in 50 CFR 10.12 as "an aquatic invertebrate animal having a shell, including, but not limited to, (a) an oyster, clam, or other mollusk; and (b) a lobster or other crustacean...

Although the Magnuson-Stevens Act provisions (50 CFR 600.10) and the Northeast Region regulations (50 CFR 648.2) lack a clear definition of shellfish, both definitions above indicate that the phylum Mollusca classifies all species within as shellfish, which includes the class Cephalopoda."

The term "Fishery Product" is not defined in any of the relevant regulations. However, the USFWS provides the following definition in its "Importing \& Exporting Shellfish \& Fishery Products" fact sheet ${ }^{2}$ :
"A fishery product means a non-living fish of one of the following classes: Cyclostomata, Elasmobranchii and Pisces; and includes any part, product, egg or offspring whether or not included in a manufactured product or a processed product. Fishery product does not mean frogs, turtles, alligators, live fish, or other aquatic animals."

This definition is inconsistent with our understanding of the term "fishery," which encompasses finfish as well as mollusks and crustaceans.

[^34]
## Is There a Need for USFWS Oversight of Domestic Squid Fisheries?

Of the three squid species commercially harvested in the U.S. (Atlantic longfin squid, Atlantic Illex squid, and California market squid), none are listed as endangered or threatened, protected under CITES, or listed as injurious under the Lacey Act. These fisheries are sustainably managed via the requirements of the Magnuson-Stevens Fishery Conservation and Management Act and through the Secretary of Commerce pursuant to his authorities over NOAA and NMFS. In 2018 the Atlantic longfin squid fishery became the first squid fishery in the world to secure certification by the Marine Stewardship Council (MSC). The Illex squid fishery was subsequently certified as MSC-sustainable in 2019.

Furthermore, U.S. squid fisheries are already subject to monitoring and inspection by the Department of Commerce (USDOC). Squid processing plants are subject to site inspections by the USDOC and the Food and Drug Administration (FDA) and are also required to meet comprehensive Hazard Analysis Critical Control Point ("HACCP") food safety requirements. The USDOC tracks squid exports and inspects frozen squid shipments. Import documentation is checked by the FDA and U.S. Customs Service. Shipments are periodically flagged and inspected by the FDA. Given this rigorous system of management and oversight already in place, we believe that additional inspection by the USFWS is unnecessary and yields no environmental or economic benefit.

## Industry Impacts

The USFWS licensing and inspection requirements and fees impose a substantial, unnecessary, and unfair burden on U.S. squid producers. Squid are generally considered to be a high volume, lower value product, and the majority of U.S squid being harvested and processed today (approximately $65 \%$ ) is destined for export markets. Any fees associated with USFWS policies and regulations add a layer of costs that make U.S. products more expensive to produce and less competitive in the international market, thus exacerbating the annual \$16B seafood trade deficit. Additionally, the procedural requirements associated with achieving USFWS inspections can cause substantial logistical delays and add costs to the bottom line for U.S. squid producers. For example, the restrictions on which ports which can be used for squid exporting may prevent companies from getting the best freight rates, further negatively impacting US product competitiveness abroad.

For additional details on the economic impacts and regulatory burden of these USFWS import/export regulations, please see the joint letter submitted to the Council by Lund's Fisheries, Seafreeze Ltd., and The Town Dock. ${ }^{3}$

## USFWS Justification for Excluding Squid from Import/Export Exemptions

We have reviewed current regulations and supporting documents from USFWS and have not found a rationale for excluding squid from the exemption for shellfish and fishery products. USFWS leadership has stated that the exemption "is purposefully narrow to discourage smuggling and illegal trade in protected species, invasive species and other wildlife, and to protect the legal trade community." ${ }^{4}$

[^35]However, we are not aware of any evidence that squid fisheries are any more vulnerable to illegal trade than other fisheries that are covered by the exemption.

In 2016, the topic was raised during a Legislative: Hearing on H.R. 3070 and H.R. 4245 before the U.S. House Of Representatives Committee on Natural Resources Subcommittee on Water, Power and Oceans. ${ }^{5}$ As illustrated in the transcript excerpt below, when questioned by Representative John Fleming, Mr. William Woody (Assistant Director of USFWS Office of Law Enforcement at the time) was unable to provide a rationale for specifically excluding squid from the exemption. ${ }^{6}$

Dr. FLEMING. Can you please explain to the subcommittee why a U.S. company that processes squid caught by U.S. fishermen off our own coast, and then exports that same cleaned, frozen product for human consumption, is subject to the same excessive fees and aggressive inspection requirements as products that are actually dangerous to the environment, or highly protected, such as those listed under the Lacey Act, CITES, and the Endangered Species Act?

Mr. WOODY. OK. Under our service regulations, under shellfish and fishery products, they do not fall under our regulations. What we have is the exemption does not apply to aquatic invertebrates and other animals that may be imported or exported for human or animal consumption. Essentially, the definition of shellfish or fisheries product such as squid, octopus, cuttlefish, land snails, sea urchins, sea cucumbers, they don't apply. They do not fall under that exemption, under our regulations.

Dr. FLEMING. But your regulations could be changed, right? You don't require an Act of Congress to do that?

Mr. WOODY. Our regulations could be changed, correct.
Dr. FLEMING. All right. Why not change them?
Mr. WOODY. Because we think they are sufficient right now.
Dr. FLEMING. But why? I know you think that, but why?
Mr. WOODY. Because we think what we have right now, under shellfish and fisheries product, under the exemptions that we give those particular things, we think that covers a broad base. Adding on these other exemptions can add on to other issues as well. In other words, anything possibly from wildlife trafficking to other invasive species coming in. We have not added anything on to that, under the exemptions.

Dr. FLEMING. So, you are concerned that it opens the floodgates to other types of critters that might be involved with the Endangered Species Act or-

Mr. WOODY. Potentially it opens up other smuggling avenues. Correct, sir.
Dr. FLEMING. OK. Why is domestic calamari from our own waters defined the same way as these other dangerous or protected products?

Mr. WOODY. It does not fall under the exemption, sir.
Dr. FLEMING. So it is the same answer, basically.
Mr. WOODY. That is correct.

[^36]
## Proposed Action

We believe the USFWS already has the authority within the existing regulations to exempt domestic squid fisheries from licensing and inspection requirements. Although squid lack external shells, they do have internal shells known as "pens" and therefore could potentially be classified as shellfish under the current definition. However, in order to ensure a permanent exemption for these sustainably managed domestic squid fisheries, we recommend modifying the definition of "shellfish" at 50 CFR 10.12 to explicitly include all mollusks, including all cephalopods (squid, octopods, cuttlefish). The following is a potential revised definition:

Shellfish means an aquatic mollusk or crustacean, including, but not limited to clams, oysters, squid, octopods, and lobsters; or any part, product, egg, or offspring thereof, or the dead body or parts thereof (excluding fossils), whether or not included in a manufactured product or in a processed food product.

As an alternative, the USFWS may also consider broadening the definition of "Fishery Products" to include all mollusks not otherwise covered under the existing definition of shellfish. Because this term is not defined in the relevant regulations, USFWS could broaden the definition to exempt squid and other invertebrates without requiring a regulatory change.

At a time when many commercial fishermen are experiencing severe economic consequences from the COVID-19 pandemic, we encourage you to remove this unnecessary burden on U.S. fishermen. Thank you for your consideration of these comments. Please feel free to contact me if you have any questions.

Sincerely,

## Christopher M. Moore

Executive Director, Mid-Atlantic Fishery Management Council

Cc: Mid-Atlantic Fishery Management Council<br>Mr. Chris Oliver, NOAA Fisheries Assistant Administrator for Fisheries<br>Mr. Sam Rauch, NOAA Fisheries Deputy Assistant Administrator for Regulatory Programs<br>Ms. Aurelia Skipwith, U.S. Fish and Wildlife Service Director<br>Mr. Chuck Tracy, Pacific Fishery Management Council Executive Director

# New England Fishery Management Council Meeting Agenda Tuesday - Thursday, December 1-3, 2020 <br> By Webinar 

Sending comments? Written comments must be received at the NEFMC office no later than 8:00 a.m., Friday, November 27, 2020 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 December 2020 meeting webpage.

PUBLIC COMMENTS: The Council's "Guidelines for Providing Public Comments" can be found here.

## Tuesday, December 1, 2020

9:00 a.m. Introductions and Announcements (Chairman Dr. John Quinn)

| 9:10 | 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, International Commission for the |
|  | Conservation of Atlantic Tunas (ICCAT) Advisory Committee |
| 10:30 |  |
|  | Ecosystem-Based Fishery Management (John Pappalardo) |
|  | Extension of October 27, 2020 Council meeting discussion to set 2021 priorities; reaffirm or alter path for |
|  | EBFM outreach and EBFM management strategy evaluation (MSE) |

12:30 p.m. Lunch Break

1:30 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)

1:45 Atlantic Herring Report (Rick Bellavance)
Framework Adjustment 7: update on action to protect spawning herring on Georges Bank; update on other herring-related actions

2:10 Standardized Bycatch Reporting Methodology (Staff)
Presentation on findings of three-year review; Council discussion

2:40 Northeast Ocean Data Portal (Nick Napoli, NROC; Dr. Fiona Hogan, RODA)
Final report on collaborative effort between the Northeast Regional Ocean Council and the Responsible Offshore Development Alliance to update commercial fisheries data on portals

3:00 Habitat Committee Report (Eric Reid; Chris Schillaci, GARFO)
Council review and approval of completed Habitat Policies for Aquaculture and Submarine Cables; update on offshore energy and habitat-related work; NOAA Fisheries update on regional aquaculture activities and Federal Aquaculture Opportunity Areas, Council discussion

## Wednesday, December 2, 2020

9:00 a.m. Fall 2020 Management Track Assessments (Dr. Russell Brown, Northeast Fisheries Science Center) Report on peer reviewed Fall 2020 Management Track Assessments for Atlantic sea scallops and 13 Northeast multispecies stocks, including large-mesh groundfish and small-mesh whiting/hake stocks

10:15 Scientific and Statistical Committee (SSC) Report - Part 1 (SSC Chair Dr. Jason McNamee)

Receive overfishing limit (OFL) and acceptable biological catch (ABC) recommendations for Atlantic sea scallop fishing year 2021 and defaults for 2022; receive OFL and ABC recommendations for northern and southern red hake, northern and southern silver hake, and offshore hake for fishing years 2021-2023

| 11:00 | Scallop Committee Report (Vincent Balzano) |
| :---: | :---: |
|  | Framework Adjustment 33: overview of 2020 surveys; progress report on 2021 fishery specifications, 2022 default specifications, and other measures |
| 12:00 p.m. | Lunch Break |
| 1:00 | Small-Mesh Multispecies (Whiting) Committee Report (Rick Bellavance) <br> Annual Monitoring Report: presentation of report with catch accounting for 2019 fishing year; 2021-2023 Specifications: initiate action |
| 2:00 | Scientific and Statistical Committee (SSC) Report - Part 2 (SSC Chair Dr. Jason McNamee) <br> Receive OFL and ABC recommendations for nine groundfish stocks for fishing years 2021-2023; receive SSC recommendations for white hake rebuilding |
| 3:00 | Groundfish Committee Report (Terry Alexander) <br> Framework Adjustment 61: Council final action on (1) 2021 total allowable catches for U.S./Canada stocks of Eastern Georges Bank (GB) cod, Eastern GB haddock, and GB yellowtail flounder, (2) 2021-2023 specifications for roughly half of the groundfish stocks, and (3) white hake rebuilding; Council discussion on universal sector exemption to allow fishing for redfish, pollock, and haddock, final action on this measure delayed until January Council meeting |
| Thursday, D | ecember 3, 2020 |
| 9:00 a.m. | NOAA Guidance to Councils on Financial Disclosures and Voting Recusals (Mitch MacDonald, NOAA GC) NOAA General Counsel briefing on final rule addressing disclosure of financial interests and voting recusal regulations for Regional Fishery Management Council members |
| 10:00 | Spiny Dogfish (Rick Bellavance; Jason Didden, Mid-Atlantic Council staff) Review 2021-2022 specifications proposed by Mid-Atlantic Council; New England Council discussion; consider final action |
| 11:00 | Skate Committee Report (Dr. Matt McKenzie) <br> Northeast Skate Complex Amendment 5: approve scoping document with expanded range of possible measures |
| 11:30 | North Atlantic Right Whales (NEFSC; GARFO; Terry Alexander) <br> Presentation/Reports on: (1) preliminary 2019 population estimate, (2) Atlantic Large Whale Take Reduction Plan Draft Environmental Impact Statement (DEIS) and proposed rule; (3) Draft Batched Biological Opinion covering 10 fisheries; Council discussion and comments; and (4) 2020 Ropeless Consortium Annual Meeting |
| 1:00 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.

# SAFMC Recreational Fishery Topics Meeting 

November 9, 2020
Webinar


#### Abstract

Except for advertised (scheduled) public hearings and public comment sessions, the times indicated on the agenda may be adjusted as necessary to accommodate the completion of agenda items. Interested parties should be aware that meetings may start earlier or later than indicated.

Written comments received by 5 pm the Monday before the meeting (11/2) will be compiled, posted to the website as part of the meeting materials, and included in the administrative record.

Please use the online comment form at: https://safmc.wufoo.com/forms/mx2j9us00t12v8/ to ensure your comments are posted immediately to the Council's website and available for Council consideration. Individuals that wish to submit comments after $11 / 2$ must use the online form. To view comments: https://safmc.wufoo.com/reports/2020-nov-council-meeting-public-commentreport/


Meeting Webinar Registration Link:<br>https://register.gotowebinar.com/register/6357613036669156878

## AGENDA

## Monday, November 9, 2020 10:00 am - 4:00 pm

Webinar startup and troubleshooting 9:30 am - 10:00 am
Agenda Approval

1. Recreational Reporting: Snapper Grouper Amendment 46

- Overview Presentation: Myra Brouwer

2. Recreational Accountability Measures: Snapper Grouper Regulatory Amendment 31

- Overview Presentation: Brian Cheuvront

3. MyFishCount Program Final Report

- Presentation: BeBe Harrison

4. Report of the Gulf of Mexico and South Atlantic Fishery Management Council Joint Workgroup for Sec. 102 of the Modernizing Recreational Fisheries Act

- Modern Fish Act Overview: John Carmichael
- Sec. 102 Workgroup Update: Steve Poland

5. Recreational Issues Discussion and Recommendations

Other Business
Adjourn

## Attachments

Attachment 1a: Snapper Grouper Amendment 46
Attachment 1b: SG A46 presentation
Attachment 2a: SG RA31 December 2019 Decision Document
Attachment 2b: SG RA31 Presentation
Attachment 3: MyFishCount Presentation
Attachment 4a: Modern Fish Act and Recreational Workgroup Background Documents
Attachment 4b: Modern Fish Act \& Joint Workgroup Presentation

## OVERVIEW

## Agenda Approval

## 1. Recreational Reporting: Snapper Grouper Amendment 46

This amendment considers requiring a permit for anglers to participate in the recreational snapper grouper fishery and specific reporting requirements for permitted anglers (Attachment 1a). Recreational reporting for the snapper grouper fishery was identified in the Visioning project as a way to improve data.

At this meeting, the Council will receive an overview presentation on the amendment (Attachment 1b) and is asked to consider next steps and how this amendment fits into broader efforts to address recreational fishery management issues.

## Committee Action:

- Does the Council still intend to pursue this amendment?
- If so, what issues should be addressed, or information provided, when it is next considered?
- Are there other developments in recreational reporting to be considered?
- Are there species or traits of species or fisheries to be considered for recreational reporting?
- Traits e.g., low ACLs, overfished or overfishing conditions, data precision (MRIP PSE)
- If the Council pursues mandatory reporting, what mechanisms need to be in place and what actions does the Council need to take to ensure reporting provides reliable data?
- What questions or concerns does the question have related to reporting that can be directed to the SSC, SEP, or staff to support future discussion?


## 2. Recreational Accountability Measures: Snapper Grouper Regulatory Amendment 31

At the March 2018 meeting, the Council directed staff to begin an amendment revising recreational accountability measures to allow more flexibility in managing recreational fisheries (Attachment 2a). The Council reviewed some preliminary actions and alternatives and decided that this amendment would apply only to the snapper grouper and dolphin wahoo FMPs. Scoping sessions were held in January 2018 and the Council reviewed scoping comments in March 2019. At the June 2019 Council meeting, the Council decided to move the dolphin and wahoo actions to Dolphin Wahoo Amendment 10. The Council reviewed and approved modifications to the Purpose and Need at the December 2019 meeting. Instead of continuing to review the draft actions and alternatives, worked paused until December 2020 when it was though more would be known about how MRIP revisions will affect ACL and allocation revisions.
At this meeting, the Council will receive an overview presentation on the amendment (Attachment 2b) and is asked to consider next steps and how this amendment fits into broader efforts to address recreational fishery management issues.

## Committee Action:

- Does the Council still wish to develop this amendment?
- Are there any new developments or ideas regarding AMs to be added to this amendment for consideration?
- What questions or concerns does the question have related to reporting that can be directed to the SSC, SEP, or staff to support future discussion?


## 3. MyFishCount Program Report

MyFishCount is a pilot program developed by the Council, Angler Action Foundation, and Elemental Methods in partnership with the Atlantic Coastal Cooperative Statistics Program and National Marine Fisheries Service. The initial goal was to develop an electronic reporting app for the snapper grouper fishery and enable data reported through MyFishCount to be entered into a standardized regional database (Standard Atlantic Fisheries Information System run by the Atlantic Coastal Cooperative Statistics Program). Components developed through the pilot, include a website (MyFishCount.com), a web portal and mobile application for data reporting, an application program interface to transmit data to the Atlantic Coastal Cooperative Statistics Program, and a data portal to view aggregated data. In the last year of the pilot, the program expanded to allow reporting of any recreational catch and trips in the four South Atlantic States (North Carolina, South Carolina, Georgia and Florida) and for species beyond those managed by the South Atlantic Fishery Management Council. On December 1, 2020, the South Atlantic Fishery Management Council will transfer the project to the Angler Action Foundation as stated in the original grant for the project.

At this meeting, the Council will receive a final presentation on the MyFishCount project (Attachment 3) addressing lessons learned about voluntary reporting in marine recreational fisheries and what is required to recruit and retain fishermen in a reporting program.

## Committee Action:

- Does the Council consider voluntary reporting by recreational anglers a data collection approach to pursue further through specific management actions?
- Can a program of this type be used in a mandatory reporting framework?
- Are there specific instances where a voluntary program should be considered?


## 4. Report of the Gulf of Mexico and South Atlantic Fishery Management Council Joint Workgroup for Sec. 102 of the Modernizing Recreational Fisheries Act

The Modernizing Recreational Fisheries Management Act of 2018 (Modern Fish Act) amended the Magnuson-Stevens Fishery Conservation and Management Act to address recreational fishery concerns. Section 102 of the Modern Fish Act granted Regional Fishery Management Councils the authority to apply alternative fishery management measures to recreational fisheries. Alternatives noted include extraction rates, fishing mortality targets, harvest control rules, and traditional or cultural practices of native communities. The documents package (Attachment 4a) includes the Act and 3 reports prepared in response to specific information requests contained within.

Given the importance of recreational fisheries in the Southeast US and the jurisdictional overlap of both stocks and fishermen, the South Atlantic and Gulf of Mexico Council's agreed to convene a joint workgroup to develop management recommendations in response to Section 102 of the Modern Fish Act. The goal of the workgroup is to evaluate alternative management and data collection approaches and develop general guidance the Councils can use in further pursuing flexible recreational management actions. Steve Poland was elected to Chair the workgroup.

The Joint Workgroup met in May and September of 2020. These initial meetings were devoted to reviewing data collection and management approaches from within as well as beyond the Southeast. Reports from these meetings are included in the background documents package (Attachment 4a). Full briefing materials are available on the GMFMC website:

September: https://gulfcouncil.org/meetings/council/sep-jtworkgroup-meeting-2020/
May: https://gulfcouncil.org/meetings/council/may-jtworkgroup-meeting-2020/
At this meeting, the Committee will be provided an overview of Section 102 of the Modern Fish Act and an update on Workgroup activities (Attachment 4b).

## Committee Action:

- Does the Council have any comments or suggestions on the workgroup goals and charge?
- What additional alternative management measures should be discussed by the workgroup?
- What suggestions, questions, or approaches can the Council provide to the SAFMC representatives for future consideration by the workgroup?
- What outcomes does the Council desire from the Workgroup?


## 5. Recreational Issues Discussion and Recommendation

The items reviewed at this meeting represent several important components of recreational fisheries data collection and management. While each is its own project or task, all are related through the Council's desire to address recreational fishery issues and the unique challenges of managing those fisheries.

To bring these topics together and support the Council in developing guidance and future directions for the amendments and projects reviewed at this meeting, the following trigger questions are proposed:

- What recreational fishery issues does the Council consider most important?
- Can the Council prioritize these issues?
- Which issues can be addressed in the amendments presented here?
- If both amendments are retained, which is the priority to address at the next available opportunity?
- Is the Council interested in considering tags for improving data collection or controlling effort or harvest?
- Mandating large hooks may reduce discards of smaller and undersize fish. Is this a management measure the Council would consider?
- Is the Council interested in pursuing regional management approaches, such as state by state ACL allocations, to address recreational fishery challenges?

Other Business
Adjourn


[^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 $0.4 * \mathrm{SSB}_{0}$.

[^1]:    ${ }^{1}$ The Deliverable column indicates whether the item is listed in the list of proposed actions and deliverables in the previous section.

[^2]:    ${ }^{1}$ Available at: https://www.mafmc.org/s/Bullard_letter_forage_approval.pdf.
    ${ }^{2}$ More information on Amendment 12 is available here: https://safmc.net/dolphin-wahoo-amendment-12/

[^3]:    ${ }^{3}$ Allowable gears for dolphin and wahoo include automatic reel, bandit gear, handline, pelagic longline, rod and reel, and spear (including powerheads).
    ${ }^{4}$ Available at:
    https://safmc.net/download/Briefing\%20Book\%20Council\%20Mtg\%20March\%202020/Dolphin\%20Wahoo/DW_A 02a_NMFS_Guidance_Bullet Frigate_Mackerel_EC\%20species.pdf
    ${ }^{5}$ See the March 2020 Committee meeting minutes, available at: https://safmc.net/download/BB\%20Council\%20Meeting\%20June\%202020/Dolphin\%20Wahoo/DolphinWahooCmt eMinMar20.pdf.

[^4]:    ${ }^{6}$ Available at:
    https://safmc.net/download/BB\%20Council\%20Meeting\%20June\%202020/Dolphin\%20Wahoo/DolphinWahooCmt eMinMar20.pdf.

[^5]:    ${ }^{1}$ https://www.aeaweb.org/resources/students/what-is-economics

[^6]:    ${ }^{1}$ More information is available at: https://www.mafmc.org/s/Tab08_BSB-2021-Specs_2020-08.pdf.

[^7]:    ${ }^{2}$ More information on harvest during this recent February opening is available in the briefing materials for the August 11, 2020 joint meeting of the Council and the Board: https://www.mafmc.org/briefing/august-2020

[^8]:    ${ }^{3}$ Recreational harvest is based on "pre-calibration" 2016-2017 MRIP estimates downloaded in July 2018 and backcalibrated 2018 estimates provided by MRIP staff. Recreational dead discard estimates were calculated by NMFS staff by applying the ratio of new to old MRIP estimates in each year to the dead discard estimates provided with the 2019 operational stock assessment. These discard values should be considered rough estimates.

[^9]:    ${ }^{1}$ Reported as released alive, with $10 \%$ of those live releases assumed to die post-release.

[^10]:    ${ }^{a}$ Source: Pers. Comm. with the National Marine Fisheries Service, Fisheries Statistics Division, May 12, 2020.

[^11]:    ${ }^{2}$ Within the summer flounder management unit, wave 1 (January/February) data are only available for the state of North Carolina.

[^12]:    ${ }^{\text {a }}$ State-specific conservation equivalency measures. ${ }^{\mathrm{b}}$ Region-specific conservation equivalency measures. ${ }^{\mathrm{c}}$ Proposed revisions; pending implementation.

[^13]:    ${ }^{1}$ https://www.greateratlantic.fisheries.noaa.gov/ro/fso/reports/h/blue/blue_coast_qm.html

[^14]:    ${ }^{1}$ 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 ( Mlb ) the numbers may slightly shift due to rounding. The conversion factor used is $1 \mathrm{mt}=2204.6226$ pounds.
    ${ }^{2}$ Bluefish projections for the rebuilding plan were developed prior to the Council turning to the new risk policy, thus, the 2020 and 2021 ABCs were developed with the old risk policy. However, the ABCs for 2022 and beyond do incorporate the new Council risk policy.

[^15]:    ${ }^{1}$ The approach used by the Greater Atlantic Regional Fisheries Office (GARFO) to monitor removals in the recreational fishery was used to generate estimates of dead discards. Discards in pounds were calculated by multiplying the live releases (B2s) numbers estimate by the mean weight of landed fish specified at the wave and state level. For specific state and wave entries lacking data on harvested fish, an average weight of harvested fish from a similar wave/state were calculated. This imputation occurred for at least a few states for each year in the dataset. In this way, live releases in numbers of fish were converted to an estimate in weight. This value was then multiplied by the $15 \%$ discard mortality rate that is assumed in Bluefish stock assessments to produce the dead discard estimates in pounds.

[^16]:    ${ }^{2}$ Inspection of recent coastwide age data collections suggests missing age samples within the largest size classes'.

[^17]:    ${ }^{1}$ See the briefing materials, presentation, and webinar recording available at: https://www.mafmc.org/briefing/october-2019.

[^18]:    ${ }^{2}$ See the briefing materials, presentation, and webinar recording available at: https://www.mafmc.org/briefing/october-2019.

[^19]:    ${ }^{3}$ The full proposal can be found on pages 147-152 of this document: https://www.mafmc.org/s/Tab02_SFSBSB-ComRec-Allocation-Amd 2020-05.pdf.

[^20]:    ${ }^{1}$ 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.

[^21]:    ${ }^{2}$ The term fishermen applies to all people who fish, regardless of gender.

[^22]:    ${ }^{3}$ 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.

[^23]:    ${ }^{4}$ See https://www.mafmc.org/actions/summer-flounder-amendment for additional information on this amendment.

[^24]:    ${ }^{5}$ https://www.mafmc.org/s/MAFMC-Fishery-Allocation-Review-Policy_2019-08.pdf

[^25]:    ${ }^{6}$ 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]:    ${ }^{7}$ 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]:    ${ }^{1}$ The Commission and Council are also in the process of developing a joint Amendment for Summer Flounder, Scup and Black Sea Bass to consider modifications to the commercial and recreational sectors allocation. A change to the overall allocation to the commercial sector could impact the amount of quota available to the states, but would not impact the state allocations of the commercial quota. Information on Commercial/Recreational Allocation Amendment can be found at http://www.mafmc.org/actions/sfsbsb-allocation-amendment. ${ }^{2}$ In this document it is noted that the Board and Council could choose between proposed management options to modify the black sea bass state commercial allocations. However, if the two management bodies elect not to include the black sea bass state commercial allocations in the Council's FMP, only the Board would select the management program.

[^28]:    ${ }^{3}$ In July 2018, the Marine Recreational Information Program (MRIP) replaced the existing estimates of recreational catch with a calibrated 1981-2017 time series that corresponds to new survey methods that were fully implemented in 2018. The new calibrated recreational estimates are significantly higher than previous estimates, especially in later years of the time series. These revised data were incorporated into the 2019 operational stock assessment. This change was one of multiple factors which impacted the understanding of overall biomass levels.

[^29]:    ${ }^{4}$ Additional information on state quota management systems can be made available upon request.

[^30]:    ${ }^{5}$ This option is modeled after the Transboundary Management Guidance Committee (TMGC) approach, which was developed and used for the management of Georges Bank resources shared by the United States and Canada (TMGC, 2002).
    ${ }^{6}$ The Board may specify alternative information (e.g. NEFSC Trawl Survey) to be used in the case that future assessments cannot provide information on regional stock distribution.

[^31]:    Jim Dawson
    Chincoteague, Virginia.

[^32]:    ${ }^{1}$ Available at: https://www.mafmc.org/s/BSB_com_state_allocation_PHD.pdf.
    ${ }^{2}$ Available at: http://www.asmfc.org/files/PublicInput/BSB_DraftAddendumXXXIII_PublicComment.pdf.

[^33]:    * Stock assessments denoted with an asterisk are conducted by the Atlantic States Marine Fisheries

[^34]:    ${ }^{1}$ NMFS comments on 73 FR 9972-9983 (April 28, 2008). https://www.mafmc.org/s/2_NMFS-comments-to-FWS2008.pdf
    ${ }^{2}$ U.S. Fish and Wildlife Service. "Importing \& Exporting Shellfish \& Fishery Products" (July 7, 2008). https://www.fws.gov/le/pdf/import-export-shellfish-fishery-products-fact-sheet.pdf

[^35]:    ${ }^{3}$ Letter to the Council from Lund’s Fisheries, Seafreeze Ltd., and The Town Dock (July 28, 2020). https://www.mafmc.org/s/Lunds-Seafreeze-TownDock-USFWS-Comments.pdf
    ${ }^{4}$ Testimony of Mr. William Woody, Assistant Director of Law Enforcement for the U.S. Fish and Wildlife Service, before the Subcommittee on Water, Power and Oceans of the Committee on Natural Resources (February 2, 2016). https://naturalresources.house.gov/download/testimony_woody

[^36]:    ${ }^{5}$ See https://naturalresources.house.gov/hearings/hearing-on-hr-3070-and-hr-4245 for additional hearing details.
    ${ }^{6}$ Hearing transcript: https://www.govinfo.gov/content/pkg/CHRG-114hhrg98457/html/CHRG-114hhrg98457.htm.

