Mid-Atlantic Fishery Management Council
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Michael P. Luisi, Chairman | P. Weston Townsend, Vice Chairman
Christopher M. Moore, Ph.D., Executive Director

MEMORANDUM

Date: May 27, 2022

To: Council and ASMFC Policy Board

From: Julia Beaty, Council staff

Subject: Recreational Harvest Control Rule Framework/Addenda Final Action Briefing Materials

The Mid-Atlantic Fishery Management Council will meet with the Atlantic States Marine Fisheries Commission's Interstate Fishery Management Program Policy Board on June 7, 2022 to consider taking final action on the Recreational Harvest Control Rule Framework/Addenda.

The following briefing materials are provided behind this tab (materials are listed in reverse chronological order).

1) Memo on Council staff recommendations for final action
2) Final Scientific and Statistical Committee Report on Implications of Recreational Harvest Control Rules on ABC Specification
3) Summary of comments received during Draft Addenda comment period
4) Framework/Addenda Options Reference Guide
5) Recreational Harvest Control Rule Draft Addenda for Public Comment
6) Harvest Control Rule Infographics
7) Letters from GARFO and states on 2022 recreational measures for summer flounder, scup, and black sea bass

The following briefing materials will be posted to the meeting page once they are finalized.

8) Summary of May 26, 2022 Fishery Management Action Team/Plan Development Team meeting
9) Summary of May 25, 2022 Advisory Panel meeting

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Date: May 27, 2022

To: Chris Moore, Executive Director

From: Julia Beaty, staff

Subject: Council staff recommendations for final action on the Recreational Harvest Control Rule Framework/Addenda

Background

The Mid-Atlantic Fishery Management Council (Council) and the Atlantic States Marine Fisheries Commission's (Commission's) Interstate Fishery Management Program Policy Board (Policy Board) will consider taking final action on the Recreational Harvest Control Rule Framework/Addenda on June 7, 2022. This action considers changes to the process for setting recreational bag, size, and season limits (i.e., recreational measures) for summer flounder, scup, black sea bass, and bluefish. The goal of this action is to establish a process to set recreational measures that prevent overfishing, are reflective of stock status, appropriately account for uncertainty in the recreational data, consider angler preferences, and provide an appropriate level of stability and predictability in management changes from year to year.

Current Process and Legal Requirements

The annual specifications process for all four species includes overfishing limits (OFLs) recommended by the Council's Scientific and Statistical Committee (SSC). The OFLs for these species are derived directly from peer reviewed and accepted stock assessments. The SSC recommends acceptable biological catch (ABC) limits reduced from the OFLs to account for scientific uncertainty. Under the Council's risk policy, when biomass is at least 150% of the target level (as is currently the case for scup and black sea bass), the buffer between the OFL and the ABC is only 1.4% - 2.7% (depending on the OFL coefficient of variation, which is an expression of uncertainty). Therefore, ABC overages carry a high risk of OFL overages and overfishing when biomass is high. The buffer at lower stock sizes varies based on stock size, becoming more precautionary as biomass decreases. In this way, as noted by the SSC, the current process already incorporates an important theme of the Harvest Control Rule Framework/ Addenda: Catch limits are already more precautionary at lower stock sizes and less precautionary at higher stock sizes.

Commercial and recreational annual catch limits (ACLs) are derived from the ABC by applying the allocation percentages defined in the Fishery Management Plan (FMP). Annual catch targets (ACTs) are set less than or equal to the ACLs to account for management uncertainty. Expected dead discards are subtracted from the ACT to derive the recreational harvest limit (RHL). Recreational bag, size, and season limits are then set to allow harvest to meet but not exceed the RHL. If expected dead discards are accurately predicted, measures which prevent RHL overages

should also prevent ACL overages. The options in the Harvest Control Rule Framework/ Addenda consider only how to set recreational measures. None of the options would change the process for deriving OFLs, ABCs, ACLs, ACTs, and RHLs.

The Council is required by law to set management measures that are expected to prevent overfishing. Therefore, the Council cannot recommend measures that are expected to result in recreational ACL overages unless it is also determined that the commercial sector will not achieve their full ACL. None of the options in this framework/addenda are meant to impact the ability of the commercial sector to achieve their full ACL. As such, recreational management measures must aim to prevent recreational ACL overages in order to proactively prevent overfishing and comply with the Magnuson-Stevens Fishery Conservation and Management Act.

Council Staff Recommendation for Final Action

Council staff recommend an alternative that is within the range of options in the framework/addenda. The staff recommendation is to: 1) set recreational measures for two years at a time, 2) use improved statistical methods for predicting the impacts of measures on harvest and discards, and 3) incorporate considerations related to variability and uncertainty in the recreational data. Under the staff recommendation, the only required modifications to the FMPs would be to allow recreational measures to be set for two years at a time. Council staff do not support modifying the FMP to require use of specific statistical methods when setting measures as this can limit the flexibility to adapt to changing circumstances and improved methods. As described in more detail below, improvements to these methods can and are being made without changes to the FMP.

Council staff do strongly support the use of statistical models such as the Recreational Economic Demand Model and the Recreational Fleet Dynamics Model (both of which are currently in development) to inform the setting of recreational measures. These models will allow for more statistically robust predictions of future harvest and discards under different combinations of measures and different stock sizes. In addition, they will incorporate data other than Marine Recreational Information Program (MRIP) data, such as angler preferences and availability of the stocks to anglers. In addition, Council staff support prioritizing completion of the previously initiated Technical Guidance Document to describe best practices related to identifying and modifying outlier MRIP estimates, using confidence intervals, and guidelines for maintaining status quo measures.

The timing of a two-year recreational measures cycle should align with the timing of updated management track stock assessments. In the interim year, measures would be reviewed and modified only if new data suggest a major change in the expected impacts of those measures on the stock or the fishery. This could provide greater stability in measures compared to the current process (which has the potential for annual changes) as the intent would be to change measures when updated stock assessment information is available and not overly react to one additional year of MRIP data in the interim year. The next two-year cycle would start with the 2023 management track assessments for all four species for setting measures for 2024-2025. In 2025, updated management track assessments would be used to set measures for 2026-2027.

Why Other Framework/Addenda Options Are Not Recommended

Council staff do not recommend implementation of the Percent Change, Fishery Score, Biological Reference Point, or Biomass Based Matrix Options (i.e., Options B-E in Section 3.1 of the Draft Addenda) as they reduce the flexibility mangers currently have to set measures to prevent overfishing. In addition, the process for setting measures under Options C-E (the binned

approaches) would be much more complex than the Council staff recommendation. For example, for a species managed with three regions with identical measures in each state in a region, Option C would require 16 sets of measures, Option D would require 52 sets of measures, and Option E would require 24 sets of measures. The staff recommendation would require four sets of measures (one for each region and one for federal waters). Also, many details are lacking regarding the process for setting measures under these options. These details would need to be determined through specifications if one of these options is selected in June for implementation.

As previously stated, measures recommended by the Council must prevent recreational ACL overages in order to prevent overfishing and comply with the law. This can require frequent changes in measures as the ACL and RHL can vary annually. As previously stated, Options B-E will not change the process for setting ACLs and they will not change the requirement to prevent ACL overages. Therefore, Options B-E could require frequent changes in measures unless managers are willing to set more restrictive measures to allow for stability while preventing ACL and RHL overages.

Recent Improvements to the Current Process

The Monitoring Committee, Technical Committee, Council, and species Management Boards have made several improvements to the process for setting recreational measures in recent years, including the examples listed below. These changes have been incorporated into the current process and will continue to be used under the Council staff recommendation.

- The Northeast Regional Coordination Council adopted a new stock assessment process which began in 2020. This new process includes biennial management track stock assessments for summer flounder, scup, black sea bass, and bluefish. This provides managers with more frequent updates to stock status information than in previous years.
- The Council modified their risk policy such that a higher risk of overfishing (and therefore higher catch and landings limits) is now allowed under all biomass levels. For example, the ABC for stocks above 150% of their target level may now have a maximum 49% probability of overfishing. Previously, the ABCs were limited to a maximum 40% probability of overfishing. This change impacted the ABCs for 2021 and beyond.
- The Monitoring and Technical Committees have moved towards greater use of multi-year averages and coastwide projections of harvest estimates when predicting future harvest. Previously, for summer flounder, scup, and black sea bass, these predictions largely relied on projected harvest at the state level for the current year only.
- When setting measures for 2017, 2018, and 2022, the Technical Committee used statistical methods to identify and adjust outlier harvest estimates for black sea bass.
- The Monitoring Committee modified the methodology for calculating expected dead discards for black sea bass to derive the sector specific landings limits from the catch limits. This change was first implemented with the 2021 specifications and was intended to better predict discards than the previous method.
- In some recent years, the Monitoring Committee has used considerations related to percent standard error and confidence intervals to justify leaving measures unchanged when small RHL overages or underages were otherwise expected.

Future Management Actions Which May Further Improve the Process

Two additional ongoing efforts through the Recreational Reform Initiative may result in further changes or improvements to the process for setting recreational measures in coming years.

In October 2020, the Council and Policy Board agreed to develop a Technical Guidance Document to address the following topics: 1) Identifying and smoothing MRIP outlier estimates, 2) Use of preliminary current year MRIP data, and 3) Guidelines for maintaining status quo measures. Progress made through the Harvest Control Rule Framework/Addenda and through the Monitoring and Technical Committee's efforts to improve the measures setting process in recent years (as described above) will inform development of this Technical Guidance Document. It may be possible to develop an initial draft of this document by December 2022.

In October 2020, the Council and Policy Board also initiated an amendment to consider the following two topics: 1) Options for managing for-hire recreational fisheries separately from other recreational fishing modes (referred to as sector separation), and 2) Options related to recreational catch accounting (e.g., private angler reporting, enhanced vessel trip report requirements, tournament reporting, and tags for harvested fish). Further progress has not been made due to other priorities; however, it may be possible for the Council and Policy Board to consider approval of a scoping document for this amendment in December 2022.

If the Council and Policy Board wish to further develop certain topics considered through the Harvest Control Rule Framework/Addenda (as suggested by some public comments, SSC input, and recommendations from some advisors), Council staff recommend doing so through a separate future action. This will allow for modifications beyond the range of options currently considered in the framework/addenda. For example, future management actions could consider the potential FMP changes listed below. This is not intended to be an exhaustive list.

- Improvements to the Council and Board approach to setting state and federal measures.
- Improvements to the conservation equivalency process for waiving federal waters measures.
- Modifying the accountability measures for both the recreational and commercial sectors to include consideration of fishing mortality compared to the fishing mortality threshold (F_{MSY}) when determining if management action is needed in response to ACL overages (as considered under sub-options 3.1.C-2, 3.1.E-2, and 3.4.B in the framework/addenda).Defining threshold levels of stock status indicators (e.g., biomass compared to the target level, fishing mortality, recruitment, biomass trend) as triggers for changes in measures (e.g., as considered under the Percent Change, Fishery Score, Biological Reference Point, and Biomass Based Matrix Options, but with modifications to address concerns related to the complexity, feasibility, and legality of those options).
- Changes to the timing of management measure recommendations to allow changes in measures to be implemented earlier in the year.

Conclusion

As described above, the Council staff recommendation for final action on the Recreational Harvest Control Rule Framework/Addenda builds off previous and ongoing improvements to the measures setting process and provides mangers the flexibility to set measures to prevent overfishing while adapting to new information and allowing for continued improvements in the process. This recommendation will not solve all challenges with recreational fisheries

management; however, the Council and Board have committed to consideration of further improvements and changes to the system in upcoming years.

Implications of Recreational Harvest Control Rules on ABC Specification

Submitted by
Mid-Atlantic Fishery Management Council, Scientific and Statistical Committee
SSC HCR Sub-Committee: T. Miller (chair), L. Anderson, C. Jones, P. Rago, B. Rothschild, A. Sharov

May 19, 2022

In response to the Council Motion

Introduction

The Mid-Atlantic Fishery Management Council (MAFMC) and the Atlantic States Marine Fisheries Commission (ASMFC) jointly manage several important fish species in the Mid-Atlantic region. A combination of biological reference points that specify maximum sustainable catch levels, and harvest control rules that specify the actual catch quota based on the current stock biomass is used to manage these species. Within the Council process, the MAFMC Statistical and Scientific Committee (SSC) is mandated to consider sources of scientific uncertainty to specify an acceptable biological catch (ABC) by applying the Council's risk policy. The Council's risk policy approach is a harvest control rule because it results in a catch, the ABC, specified as an amount in weight that varies according to stock biomass. Subsequently, Council and Commission staff, supported by Management Committees, develop catch quotas reflecting predetermined allocation decisions for the commercial (annual catch target, ACT) and recreational sectors (recreational harvest limit, RHL). In all cases, the combined ACT, RHL and dead discards must be equal to or less than the ABC.

In fulfilling their joint responsibility, the MAFMC and the ASMFC recently considered a number of proposed approaches to managing four key recreationally important species: Black Sea Bass, Bluefish, Scup, and Summer Flounder. The approaches proposed in the Addendum / Framework seek to prevent overfishing, be reflective of stock status, appropriately account for uncertainty in the recreational data, take into consideration angler preferences, and provide an appropriate level of stability and predictability in changes from year to year. The proposed Addendum / Framework presents five options (including one of no action or *status quo*) for how recreational harvest levels could be specified. In discussing the proposed approaches, a joint resolution was passed that sought input from the SSC to help Council and Commission members understand how the proposed approaches would affect catch levels before a final vote was taken. Specifically, the Council and Commission adopted the following motion:

> *"Request that the SSC provide a qualitative evaluation, in time for final action at the June 2022 Council/Policy Board meeting, regarding the potential effect of each of the five primary alternatives in the Harvest Control Rule Addendum/Framework on the SSC's assessment and application of risk and uncertainty in determining ABCs. The intent is to provide the Council and Policy Board with information to consider the tradeoffs among*

the different alternatives with respect to the relative risk of overfishing, increasing uncertainty, fishery stability, and the likelihood of reaching/remaining at BMSY for each approach at different biomass levels (e.g., for 1⁄2 BMSY < B < BMSY, the relative risk among alternatives is (highest to lowest) E > C > B > A>D)."

In response to this motion, the SSC created an *ad hoc* sub-committee comprising Drs. Lee Anderson, Cynthia Jones, Thomas Miller (chair), Paul Rago, Brian Rothschild, and Alexei Sharov. To fulfill the Council / Commission request, the sub-committee held three webinars (3/25, 4/13, 4/29). The webinars were public meetings. At each meeting, the sub-committee invited questions and comments from Council and Commission members and other stakeholders. The sub-committee extends its gratitude to Brandon Muffley and Julia Beatty (MAFMC staff) who supported the sub-committee by organizing meetings, providing relevant data, and answering queries from members of the sub-committee.

The sub-committee prepared this report through shared authorship and editing. The sub-committee's report was presented to the entire MAFMC SSC at their May 10th, 2022 meeting. Responses from the entire SSC were incorporated into the final report, and as such, this report represents the consensus view of the SSC.

The report is structured to address four key questions:

1. What is the impact of the proposed Addendum / Framework on the SSC's assessment and application of risk and uncertainty in determining ABCs?
2. Does the proposed Addendum / Framework represent a Harvest Control Rule?
3. What are some of the implications of the proposed Addendum / Framework?
4. What are the benefits and challenges of each proposed action within the proposed Addendum / Framework?

We answer each question in subsequent sections of this report.

(1) What is the impact of the proposed Addendum / Framework on the SSC's assessment and application of risk and uncertainty in determining ABCs?

The SSC operates under the Magnuson Stevens Fishery Conservation and Management Reauthorization Act (2007, as amended). A central goal of the MSA is to prevent overfishing. Achieving this goal requires concerted effort among all participants in fisheries management. Currently, responsibility for the management of that risk is partitioned among several groups. Stock assessment scientists estimate the overfishing limit. The Council establishes a risk policy that establishes probabilities of overfishing that are acceptable as a function of stock status. The SSC considers the nature and magnitude of scientific uncertainty and then combines this estimate and the Council's risk policy to set the ABC. Finally, management boards consider the nature and pattern of management uncertainty and set annual catch limits, which may be equal to or lower than the ABC. Each element of this management system has a role to play in ensuring fisheries operate with an acceptable risk of overfishing. Meeting goals for risk of

overfishing is not the responsibility of any single group, but rather relies on the coordinated actions of all participants.

The SSC is legislatively mandated to provide the Council an ABC. An accepted stock assessment exists for each of the four species covered by the proposed Addendum / Framework that provides an estimate of the catch associated with the overfishing limit (OFL). The SSC uses a structured process that identifies key sources and magnitudes of scientific uncertainty and the Council's risk policy, termed as the p* approach, to determine the ABC. The MAFMC SSC's structured process involves consideration of scientific uncertainty in nine categories (Table 1).

Table 1. Categories of scientific uncertainty used by the SSC in developing ABCs. The principal considerations are provided for each decision criteria, but the list of considerations is not comprehensive.

Decision criteria	Considerations
Data quality	Accuracy and precision of catch Availability of age/length data External data for key parameters (e.g., M)
Model appropriateness and identification	Comparison with alternative models Match with life history
Retrospective analysis	Model misspecification, often due to undetected temporal trend
Comparison with empirical measures	External measure of population scale
Ecosystem factors	Stationarity of model parameters
Trends in recruitment	Evaluation of stanzas and trends
Prediction error	Validation of predictions with subsequent estimates
Assessment accuracy	Function of historical exploitation patterns
Simulation / MSE	Measures of robustness of assessment

The proposed Addendum / Framework is triggered by determination of the ABC, and as such, the actual ACTs and RHLs are determined only after the ABC has been specified. Consequently, the proposed Addendum / Framework does not affect the structured process the SSC uses to specify the ABC. ***Under the current SSC ABC process, neither the no action option, nor any of the alternative approaches proposed in the Addendum / Framework directly affect the SSC's perception of scientific uncertainty and hence cannot directly affect the ABC the SSC develops.*** However, the SSC notes that if implementation of any of the alternatives described in the Addendum / Framework subsequently degrades or improves the quality of assessment data, these impacts would be addressed in future specifications through assessment of the accuracy and precision of the catch data and potentially through assessment of prediction error.

(2) Does the proposed Addendum / Framework represent a Harvest Control Rule?

Harvest control rules are quantitative relationships that specify how management endpoints, such as catch, should vary with stock biomass to achieve management objectives. One advantage of such control rules is that their performance can be evaluation through management strategy evaluation. As an example, the Council's risk policy is a harvest control rule because it combines the estimate of the catch at the overfishing level and the acceptable probability of overfishing to provide a quantitative expression for how catch should vary with stock biomass. The performance of the Council's risk policy has been validated in simulation testing. In contrast, the alternatives described in the Addendum / Framework for the recreational fishery do not specify harvest or other management endpoints. Instead, the alternatives provide a suite of decision triggers that will be used to determine whether the current regulations that determine recreational harvest, principally specifications of season length, size limits, and bag limits, should be maintained, liberalized, or reduced. The options contained in the Addendum / Framework constitute a decision framework for establishing whether action is needed, but as yet they do not specify action. *Neither the no action option, nor any of the alternatives described in the Addendum / Framework represent harvest control rules. The alternatives define the direction of adjustments to catch based on recent landings and population status, but fall short of specifying how season length, size limits, and bag limits should be altered, and thus cannot be considered harvest control rules. The proposed alternatives described in the Addendum / Framework are triggers for action only. Specification of how regulations on season length, size limits, and bag limits or other management endpoints would change is missing. Until such details are provided, the performance of the proposed alternatives cannot be determined.*

The sub-committee felt that the proposed alternatives failed to address explicitly the complexity of the problem of specifying a vector of how regulations around season, size, and bag limits would change. The expected resultant harvest depends upon the relative contributions of the different specifications as well as a host of biological and socioeconomic parameters. The current ABC process that uses the Council's risk policy involves control of a single variable, the ABC. However, there are at least three specifications that have to be set simultaneously for the proposed alternatives to be implemented. The sub-committee notes that this increases substantially the complexity and the difficulty of the challenge which the sub-committee believes should be explicitly stated so Council and Commission members have a solid grip on the decision they are being asked to make.

Marine recreational fisheries present significant management challenges because the relationships between regulatory decisions regarding season length, size limits, and bag limits and the realized catch are not simple. Figure 1 presents plots of the relationships between catch limits and landings for the commercial and recreational sectors for the four species included in the Addendum / Framework. As indicated by the solid blue lines in Figure 1, there are significant relationships between catch limits and landings in the commercial sector for three of the four species. In contrast, only one of the four

relationships between catch limit and landings is significant in the recreational sector. The dashed line in each panel is the 1:1 line expected if landings were exactly equal to the catch limit. By comparing data to this expected line, only the fisheries for Summer Flounder appear to be managed to be near their target catches in both sectors. Inspection of the four panels suggests greater variation around the 1:1 line for the recreational sector in three of the four species. Indeed these data could be taken as motivating a need for improved harvest controls in the recreational sector, or a broader acceptance that recreational fisheries cannot achieve the same level of control as that achieved through in-season catch monitoring in the commercial sector. These patterns suggest that even if policies are well designed conceptually, compliance with the policy may lead to substantial differences between specified and realized harvests. This potential is not discussed in the Addendum / Framework.

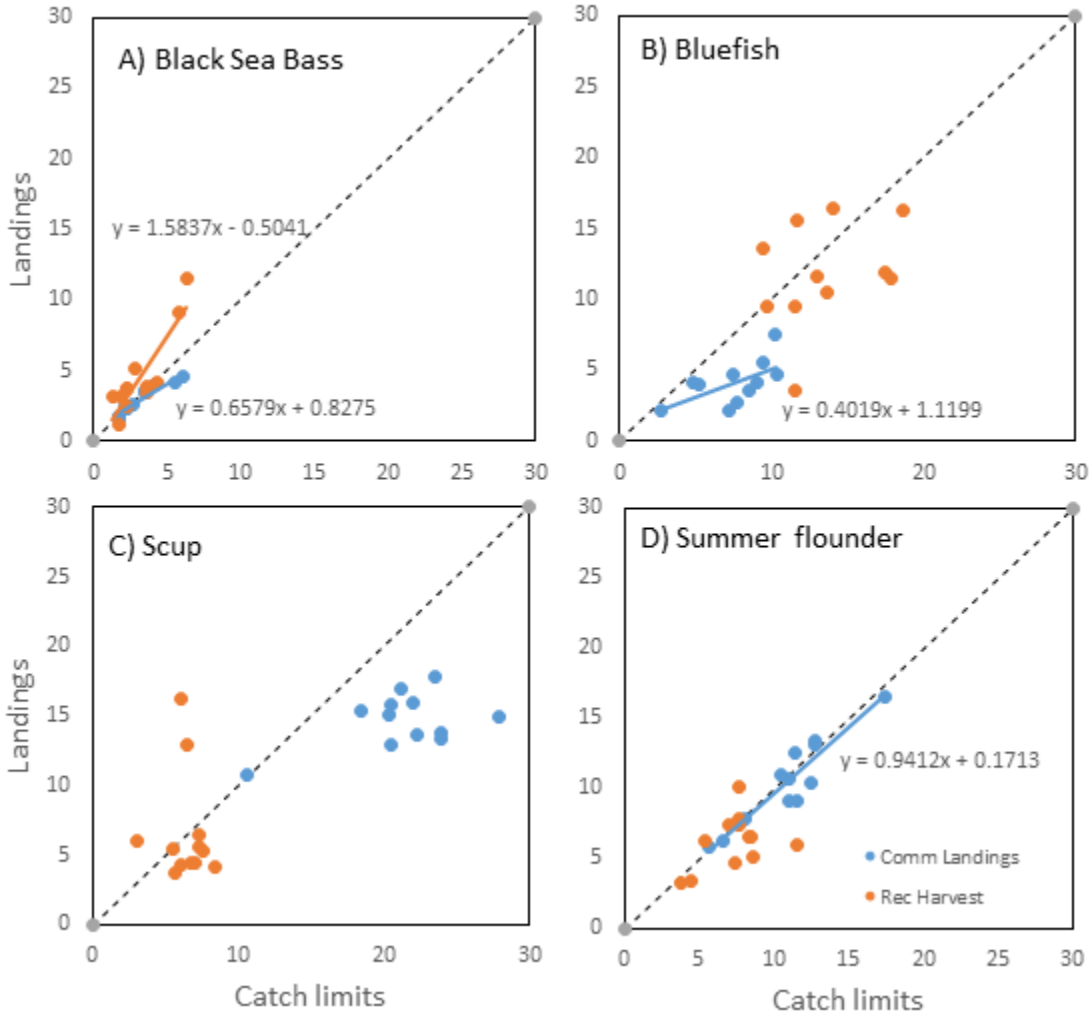


Figure 1. Comparisons of catch limit and subsequent landings for the commercial (blue) and recreational sectors (orange) for A) Black Sea Bass, B) Bluefish, C) Scup and D) Summer Flounder. All figures are plotted on the same scale. Regression lines are plotted for significant (P < 0.05) linear relationships

between catch limit and subsequent landings by sector. Regression relationships are given for significant regressions. The expected 1:1 line is shown as a dashed line in each figure.

There is a significant impact of angler behavior on the relationships shown in Figure 1. Angler behavior can be affected by many factors, causing deviations from expected relationships in both directions. High fuel prices can cause angler participation to decline, leading to lower than expected catches. Reports of good catches in traditional and social media can produce positive feedback that can lead to higher than expected catches. As a result, we understand why the workgroup who produced the alternatives described in the Addendum / Framework consciously chose not to produce recreational harvest control rules - and rather focused on directional rules that indicated how catches should change relative to a number of easily measurable stock characteristics. However, Council and Commission members should recognize that the proposed Addendum / Framework does not solve the problem of marine recreational fisheries management in the Mid-Atlantic, despite the apparent quantitative and sophisticated alternatives brought forward. The need for an approach to understanding how angler behavior and motivation affects angler avidity and ultimately catch remains. This is a significant social and natural science challenge.

(3) What are some of the implications of the proposed Addendum / Framework?

The proposed alternatives in the Addendum / Framework use a number of biological, stock and fisheries characteristics of the target species to define a process aimed at catch adjustment. Five alternatives are presented (Table 2)

Table 2. Summary of the alternatives proposed in the Addendum / Framework.

Alternative	Approach
Status Quo	Compares MRIP to RHL, and recommends change in regulations based on expert judgment.
% Change	Maintains a MRIP vs RHL comparison. Bands or bins of % change defined based on magnitude of difference between MRIP and RHL as well as B/B_{MSY} ratio. 15 different categories of action suggested.
Fishery Score	Applies multi-criteria decision making to fishery management. Action is based on the weighted average of multiple criteria, with weights based on "importance". Result is a continuous "aggregated" response variable, which is then binned into four categories of action.
Biological Reference Points	Use B/B_{MSY} and F/F_{MSY} to define bands or bins based on multiples of the reference point. Incorporates secondary measures, such as trends in recruitment or biomass to refine action. Current proposal has 34 different categories of action.
Biomass-based Matrix	Combines information on trends in biomass and stock status (B/B_{MSY}) to define 7 different categories of action.

We identify the following generic concerns with the proposed alternatives that also are inherent to the *status quo* approach.

1) Repeated use of fishery / stock status at multiple points in the decision process increases variability of catches.

   A central goal of the proposed Addendum / Framework is to reduce reliance on MRIP as the sole index of whether regulations need to be altered. In achieving this goal the Addendum / Framework seeks to use readily available information such as B/B_{MSY} and F/F_{MSY}. Estimated biomass relative to its reference point is used within the Council risk policy and in setting ABCs. The SSC notes that duplicated use of these indices will likely increase variability in fishery performance rather than dampen variability. As an example, if $B/B_{MSY} <1$, the Council's risk policy will lead to more precaution in setting the risk of overfishing. Under the Addendum / Framework, the B/B_{MSY} value will likely lead to additional precaution in recreational catch limits. This leads to precaution on top of precaution based on the value of a single index. A similar situation arises if $B/B_{MSY}>1$ which would lead to an increased level of risk in ABC determination based on the Council's risk policy and an increased level in risk associated with catch in the recreational fishery. This situation leads to a positive feedback in risk.

   The SSC encourages the workgroup developing the Addendum / Framework to find ways in which such types of feedback do not become a structural element of decision making.

2) Indirect effects on ABCs

   Recently, the Council has requested the SSC to provide multiyear, often three-year, specifications of ABCs. In most cases, the SSC assumes that the ABC will be fully caught in the first year to estimate stock biomass in the second year. This stock biomass is used in the Council's risk policy to calculate the ABC for the second year. The SSC then assumes that the year-2 ABC will be fully caught to estimate stock biomass in year-3, applying once again the Council's risk policy to estimate the year-3 ABC. In most cases, the SSC has not had to consider circumstances in which the ABC is exceeded.

   However, overages in recreational Black Sea Bass catches have been significant. To account for this the SSC has provided projections in which it assumes the ABC will be exceeded, thereby further reducing stock biomass, leading to a reduction in subsequent ABCs. Any policy that leads to harvests that are substantially above the quota will likely lead to a similar approach from the SSC of reducing ABCs in multi-year projections.

   There are structural issues in several of the alternatives related to time lags in the availability and uncertainty in the level of recreational catches, and related binning of responses, that may lead to increased uncertainty in whether ABCs may be exceeded, which could lead to the SSC setting lower ABCs than it otherwise would in multi-year specifications.

We note that biennial stock assessments are expected for each of the four species involved in the proposed Addendum / Framework that would be expected to ameliorate this challenge, as 3-year ABC will likely be superseded by new assessment-derived ABCs

3) The Council risk policy assumes a continuous relationship between stock status and fishery responses, whereas many of the alternatives in the proposed Addendum / Framework presume a discrete, binned approach that may not be compatible with the risk policy.

   Fisheries management is an example of process control, and there is an extensive body of literature that considers the response characteristics of both sensors (inputs - in fisheries, the inputs are catches, recruitments and stock biomasses) and process changes (outputs - in fisheries, the outputs are catch limits). For example, a room thermostat is a simple example of process control. Appropriate matching of the sensitivity of the sensors (accuracy of the thermostat), the size of the signal that triggers a response, and the latency in the response (size of the room, capacity of the HVAC system) are all factors that determine the degree to which the process is well controlled. For HVAC systems, thermostats, HVAC capacity both have to be specified appropriately to operate efficiently and effectively to obtain a comfortable room.

   The sub-committee explored how a fishery operates as a process control, considering variability in recruitment (inputs), and control rules of the fishery management process on the performance of the fishery (Appendix A - Rago, MS). Preliminary conclusions from this simulation are that the impacts of binning and random recruitment lead to a marked increase in the likelihood that OFLs would be exceeded. Moreover, populations were not rebuilt as frequently as occurred with population-specific optimal fishing mortality rates. Perhaps more importantly, a greater fraction of populations that were previously above B_{MSY} fell below ½ B_{MSY} when controlled with a binned HCR.

   The subcommittee does not conclude from these simulations that binned approaches should be abandoned; rather we wish Council and Commission members to be aware of the uncertainty that may be introduced by the mismatch between the harvest control rule (Council risk policy) and the binned approach.

4) Impact of time lags in estimates of recreational catch on management decisions

   MRIP estimates are most precise at the annual level for a whole stock. Real-time estimates of recreational catch can be problematic for many species (NASEM 2017, 2021) because of the reduced precision of small-area estimation.

5) Angler behavior.

   As noted previously, accurately predicting how angler behavior will change under a set of regulations is a general challenge in marine recreational fishery management. The relationships between recreational catches and specific regulatory tools (i.e., season, size, and bag limits) are

highly uncertain. This challenge is exacerbated by trying to determine such relationships when regulations change frequently, potentially leading to lower compliance. The extent to which anglers accept, believe in, and follow regulations is a complication. The committee discussed whether the complexity of some of the proposed alternatives might lead to reduced compliance because of the challenge of communicating some of the specific binned options that result in multiple contingent outcomes.

6) Limited control in one sector leads to "borrowing" of quota from other sectors, and given the role of historical data in determining allocation, this may lead to unintended management-driven shifts in allocation.

   The joint Council / Commission management process includes policy decisions about the allocation of catch among the principal sectors involved in the fishery. Allocation decisions are always the most controversial aspect of fishery management because they involve statements of economic and social value, about which simple dollar values are an insufficient foundation for decision-making.

   The sub-committee discussed the impacts of the performance of marine recreational fishery management on the allocation. Ideally, levels of under- and overharvesting should be small and approximately equal in both sectors (e.g., see Figure 1D). Under this scenario, realized catches will lead to patterns of allocation that are close to those adopted in policy. In contrast, if constraining one sector is more challenging, and leads to larger deviations from the specified catch targets, the patterns of allocation may be substantially different to those specified in the policy (e.g., see Figure 1A). This can lead to effective "borrowing" of quota from the more controlled sector, and thus to increased levels of contention in the fishery management process. The sub-committee recommends this aspect be evaluated in considering the adoption of the proposed Addendum / Framework.

(4) What are the benefits and challenges of each proposed action within the proposed Addendum / Framework?

The sub-committee provides its consensus summary of the benefits and challenges associated with each of the five options in Table 3

Alternative	Benefits	Challenges
Status Quo	● Immediate corrective action to avoid exceeding RHL and overall overfishing of the stock. ● Continuous response	● Expectation of recreational catch in the upcoming year being equal to the one observed in one or two most recent years or their average is not supported by the experience. ● Angler groups and recreational anglers have expressed frustration with the current methods of setting

		harvest quotas.
% Change	• Uses data readily available already. Broad categories of B/B_{MSY}. • Easily understandable by stakeholders/anglers. • This and other new options are expected to provide more stability by employing a buffer concept, where an action is triggered only if the recent catch exceeds threshold values defined by specific alternatives.	• May suggest finer control of recreational catches than has been achieved historically • Duplicating use of B/B_{MSY} at this level may lead to increased variability of catches. • Allows liberalization of rec.catch in some circumstances when $B/B_{MSY} < 1$ • If stock size is increasing and effort in year t+1 is the same as in year t, then the expected harvest will increase in year t+1. When you boost effort by 10, 20 or 40% you are likely to overshoot the RHL because you are increasing E(t+1) while B(t+1) is also increasing. • Competition with commercial fleets underscores this challenge. Increasing E(t+1) inappropriately (e.g., + 40%) without a commensurate decrease in quota allocation to the commercial sector will result in increased probability of overfishing. • Potential to induce instability - constantly under or over-shooting targets. The degree to which this occurs is related to the magnitude of the restrictions or liberalizations
Fishery Score	• Combines multiple sources of information - both data and performance. • Fishery score approach is an example of a simple additive weighting multi-attribute decision-making. Selection of weights (expert opinion, optimal, eigenvalue weights, fuzzy) is important and is unspecified.	• We are unaware of examples of where a scoring system has been shown to control a population trajectory. • Mapping multiple factors to one scalar may preclude necessary actions or forgo catch. • Not clear if information is available to inform weights. Identifying *a priori* relative importance of

		various factors and appropriate selection of weights is difficult. Empirical adjustment based on multiple years of observations will be required for tuning, ● Strong correlation that is expected in B/B_{MSY} and F/F_{MSY} may lead to strong influence of this single measure. Such collinearity breaches the assumption of preferential independence. ● We are unclear whether all values of Fishery Score are likely/possible when this appears not to be the case from consideration of the input value distributions (e.g., distribution of B/B_{MSY} that is under management control).
Biological Reference Points	● Information readily available (B/B_{MSY} & F/F_{MSY}) as primary determinants.	● High number of categories might suggest a level of precision in data and management systems that appears unlikely. ● Within each bin of stock size and overfishing condition, regulations will be adjusted based on trends in biomass and recruitment. Apart from knowledge about year classes, how will such trends be evaluated? How many years needed to identify a trend? ● Does the averaging approach capture strong year classes? ● The stock assessment process used to derive the ABC already includes actions suggested in this Option. Biomass status determination separates the top 3 rows of Table 3 from the bottom row. F status determination separates the two columns. The top 3 rows in Table

		3 are defined by the Council's Risk Policy. The projection process, imperfect as it is, accounts for the expected effects of historical recruitment and variation in future recruitment to develop an expected biomass trajectory. ● This option compares recent harvests performance to determine whether regulation should be liberalized or restricted. The decision variable should instead be a comparison of recent F due to recreational harvest with target F. This is particularly important in situations where a subsequent stock assessment revealed that biomass was underestimated. Under these conditions, the poor performance was in part due to an increase in abundance rather than an increase in F. Regulations are designed to control fishing mortality; decisions to adjust regulations should therefore rely on comparison between target and realized Fs.
Biomass-based Matrix	● Uses existing data (B trend and B/B_{MSY})	● Not clear how this leads to stability ● Does not explicitly consider overfishing as a basis for action. Does this violate MSA?

Conclusions and Recommendations

We conclude that the proposed Addendum / Framework options are unlikely, in the short term, to affect the determination of the degree of uncertainty used in the current SSC process of ABC specification. The current process for specifying ABC is based on a structured decision making process

that results in a preselected level of variability (CV) applied to the most recent estimates of OFL and stock biomass through the Council's risk policy (an HCR). The ABC specification process is not directly influenced by the level of the subsequent catches in any sector.

The sub-committee also notes that the performance of the proposed alternatives in the Addendum / Framework will likely be limited in scope temporarily if biennial stock assessments continue to be available for the four target species. At this frequency of stock assessment, we expect adjustments of OFLs through the stock assessment process, and subsequent adjustments in ABCs through the SSC process, will likely limit the impacts of poor performance by any proposed specification process.

At the same time, the sub-committee notes that the actual efficacy of the proposed alternatives in the Addendum / Framework is unknown. This uncertainty comes from two sources. First, the actual measures that will be taken in response to any of the triggers identified in the Addendum / Framework are not specified. Additional detail is required to turn the options put forward in the Addendum / Framework into control rules - there need to be links to specific management end points, beyond the focus on directionality that characterize the options currently. Until such specificity is provided, quantitative evaluation of the performance of the options is not possible. Second, performance of the discontinuous nature of the options proposed in the Addendum / Framework has not been proven effective in other fisheries nor formally evaluated, to the knowledge of the sub-committee. Preliminary modeling conducted by the sub-committee to evaluate the impacts of the binning of population states, reliance on various metrics of stock condition and recent catch history, and implications of recruitment variability could result in an increased risk of overfishing and becoming overfished. This suggests that the appearance of precision in the process that leads to regulatory specifications does not necessarily translate into precision in catch performance and compliance. The sub-committee expresses the concern that some of the overly complex, contingent decision-making processes included in the proposed alternatives do not reflect the actual level of control likely achieved in marine recreational fishery management.

Finally, the sub-committee cautions that stability of regulations is not the same as stability of catch. If regulations are properly set to achieve a target F, then catches and CPUE will be expected to fluctuate with stock biomass. This is an inherent feature of exploited populations. It is entirely possible to set a constant catch policy. However, harvest limits under such a constant catch policy would likely have to be substantially lower than the ABC (and its attendant RHL) to account for interannual variability in population processes and angler avidity.

Appendix A

Potential Effects of HCR Methods on Overfished Status

Paul Rago

April 10, 2022

The Harvest Control Rule Amendment consists of five options for setting recreational harvest controls. Four of these methods rely on quantitative scoring to assign population status into multiple categories. Example categories include overfished vs not overfished, overfishing occurring vs overfishing not occurring, and so forth. Cut points of the categories are used to create up to 8 different bins of population status. Within each bin, a homogeneous set of recreational effort measures (e.g., bag limit, size limit, season length) is assigned to control fishing mortality. In theory, the measures would exert a constant fishing mortality on the population while it was in a given population state (i.e., bin). When the population changes state, another set of HCRs would be applied. For example, if the population went from not overfished to overfished, allowable effort would be reduced to help restore the population to the "not overfished" bin.

The HCR policies could have important implications for controlling the population and the variability of catch. The simulation study herein examines those possible effects for a population with a constant average recruitment, independent of stock size. This is the assumption used in nearly all of the stock assessments in the Northeast. The hypothesis implies a steepness of 1.0. The basis of this pattern has been the inability to define a parametric stock recruitment relationship in most assessments.

Model

Let B_t represent the stock biomass at time t, Z represent the total mortality on the stock (Z= fishing mortality F + natural mortality M) and R_t equal the recruitment to the stock biomass at time t.

The basic dynamics are thus governed by

$$\boldsymbol{B}_{t+1} = B_t e^{-Z} + R_t \qquad (1)$$

Recursive application of Eq. 1 yields

$$\boldsymbol{B}_{t+1} = B_t e^{-Z} + R_t$$

$$\boldsymbol{B}_{t+2} = B_{t+1} e^{-Z} + R_{t+1}$$

$$\boldsymbol{B}_{t+3} = B_{t+2} e^{-Z} + R_{t+2}$$

...

$$\boldsymbol{B}_{t+T} = B_{T-1} e^{-Z} + R_{T-1} \qquad (2)$$

The limit of this process as T approaches infinity converges to

$$B_{\infty} = \frac{R}{1-e^{-Z}} \qquad (3)$$

In the absence of fishing, the maximum population size is defined as

$$B_{MAX} = \frac{R}{1-e^{-M}} \qquad (4)$$

If we apply the usual convention that B_{MSY}=1/2 B_{max}, a little algebra will show that F_{MSY} is defined as

$$F_{MSY} = -ln(2e^{-M} - 1) - M \qquad (5)$$

Applying the catch equation give MSY as

$$MSY = \frac{F_{MSY}}{F_{MSY}+M}\left(1 - e^{-(F_{MSY}+M)}\right)B_{MSY} \qquad (6)$$

The behavior of a population governed by Eq. 1 is similar to a population governed by a logistic equation, although the density dependence is not explicit. Note also that the above definition of MSY is determined by the <u>assumption</u> that B_{MSY} is ½ B_{MAX}[1].

Harvest control rules, in general terms, are designed to achieve some objective, subject to constraints. If a population is overfished, control rules should allow the population to increase to B_{MSY} over some defined time period T. If a population is well above B_{MAX}, the objective is to allow as much fishing as possible subject to a constraint that F_t<F_{MSY}. In all other cases, a common objective is to move the population toward B_{MSY}. For the sake of this analysis, I assumed that the objective of the HCR was to achieve B_{MS} in some time period T subject to the constraint that Ft<F_{MSY}.

Under these conditions the optimal fishing mortality is defined as the fishing mortality rate necessary to move the population from its current state to B_{MSY} in a time horizon T. This can be written as two-point boundary value problem to find the solution to Eq 2 where B_{t+T}=B_{MSY}. Thus

$$\boldsymbol{B}_{t+1} = B_t e^{-F_{opt}-M} + R_t$$

$$\boldsymbol{B}_{t+2} = B_{t+1} e^{-F_{opt}-M} + R_{t+1}$$

$$\boldsymbol{B}_{t+3} = B_{t+2} e^{-F_{opt}-M} + R_{t+2}$$

…

[1] In a population truly governed by Eq. 1, the maximum sustainable yield would be to harvest the entire recruitment at each time period. No sense letting the biomass degrade in the B_t pool!

$$B_{MSY} = B_{t+T} = B_{T-1}e^{-F_{opt}-M} + R_{T-1} \qquad (7)$$

The optimal fishing mortality can be found numerically by setting finding Fopt such that B_{MSY}-B_{t+T}=0. Two special conditions apply. First, it may not be possible to achieve B_{MS} even when F=0. Second, Council policy and National Standards do not allow F to exceed F_{MSY}. Hence F_{opt} has a maximum value of F_{MSY}. Under condition 1 the F_{opt} is infeasible; under condition 2, the population will exceed B_{MSY} at the end of the horizon t+T. An important aspect of Eq. 7 is that the future dynamics are not affected by the current level of F. F_{opt} is a function of B_t, B_{t+T}, R and M only.

See Table 1 for a list of all model parameters.

Table 1. Summary of model parameters and derived quantities used in simulations.

Parameter	***Variable***	***Value***
Natural Mortality	M	0.2
Initial Biomass	B_0	300
Recruitment	R_t	100
Planning Horizon (years)	T	5
Range of Recruitment	R_{min}, R_{max}	50, 150
Derived Quantities		
Maximum Biomass	B_{MAX}	551.6
Biomass at MSY	B_{MSY}	275.8
Fishing Mortality for MSY	F_{MSY}	0.2503
Maximum Sustainable Yield	MSY	55.6
HCR Bins		
Biomass: Very High	>1.5 B_{MSY}	413.7
Biomass: High	[B_{MSY},1.5 B_{MSY})	[275.8, 413.7)
Biomass: Low	[0.5 B_{MSY}, B_{MSY})	[137.9, 275.8)
Biomass: Too Low	<0.5 B_{MSY}	<137.9

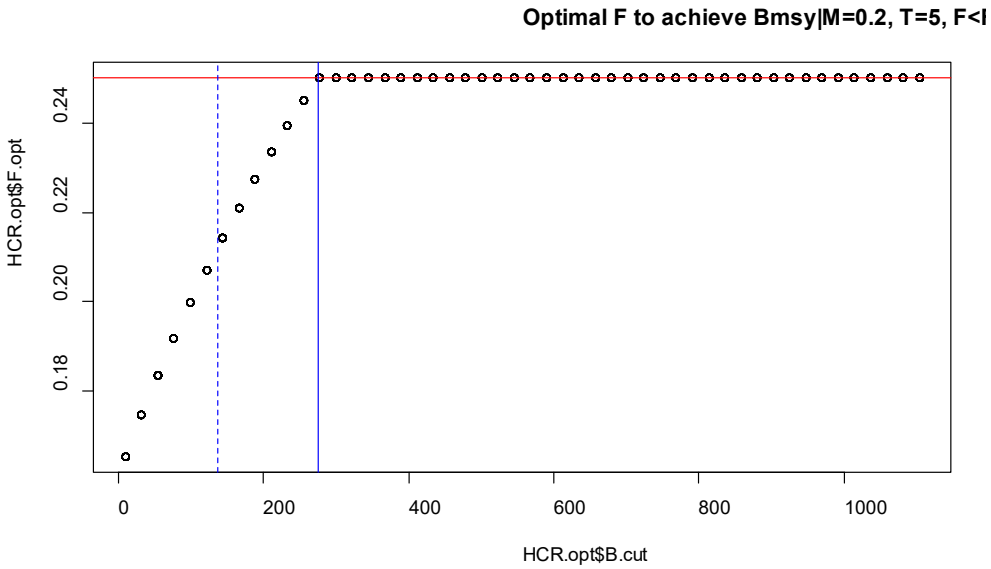


Figure 1. Optimal F to achieve B_{MSY} given initial biomass level Bt. See Eq. 7. Red line is F_{MSY}. Solid blue vertical line is B_{MSY}, dashed vertical line is ½ B_{MSY}.

As shown in Fig. 1 the optimal policy does not depend on whether fishing mortality is, or is not occurring at time t. However, the magnitude of change in F for a given population state (B_t, F_t) does depend on Ft (i.e., F_t-F_{opt}). To illustrate this further, consider the B_t, F_t phase plane used for Option D.

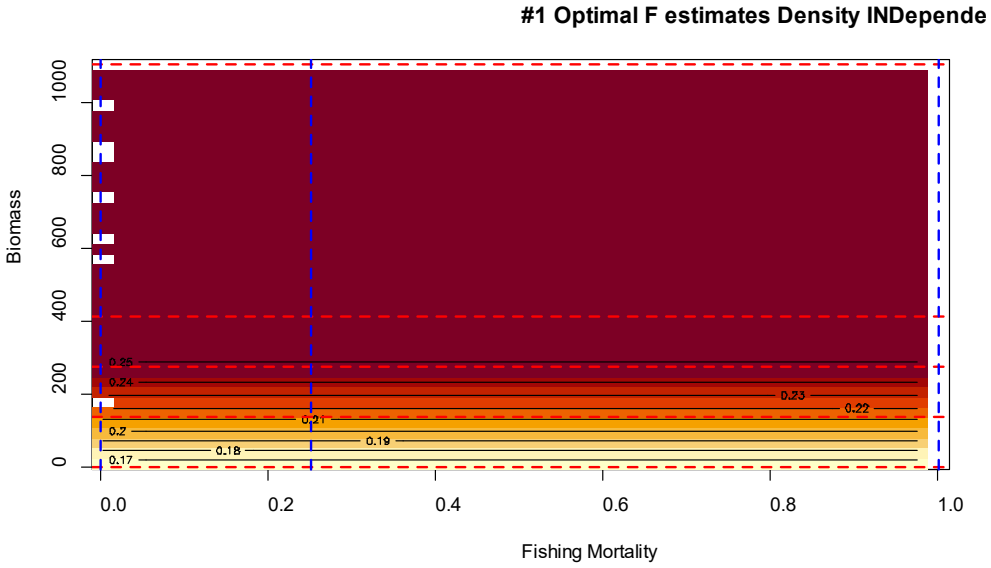


Figure 2. Optimal F response surface vs biomass and fishing mortality.

Effects of Binning

Equation 7 defines an optimal fishing mortality rate for every value of Bt. However, the HCR is based on the use of a common F strategy within bins of population states. These states include intervals of biomass, fishing mortality, biomass rates of change, a linear scoring approach, and expected differences between recent catch and RHL. One way of dealing with this binning is to use a measure of central tendency for all possible observations within the HCR category. For example, one could compute the average Fopt for all possible values of B_t in the interval [B_{MSY}, B_{MAX}] or in the interval [0.5 B_{MSY}, B_{MSY}] etc. This process is illustrated in Fig. 3.

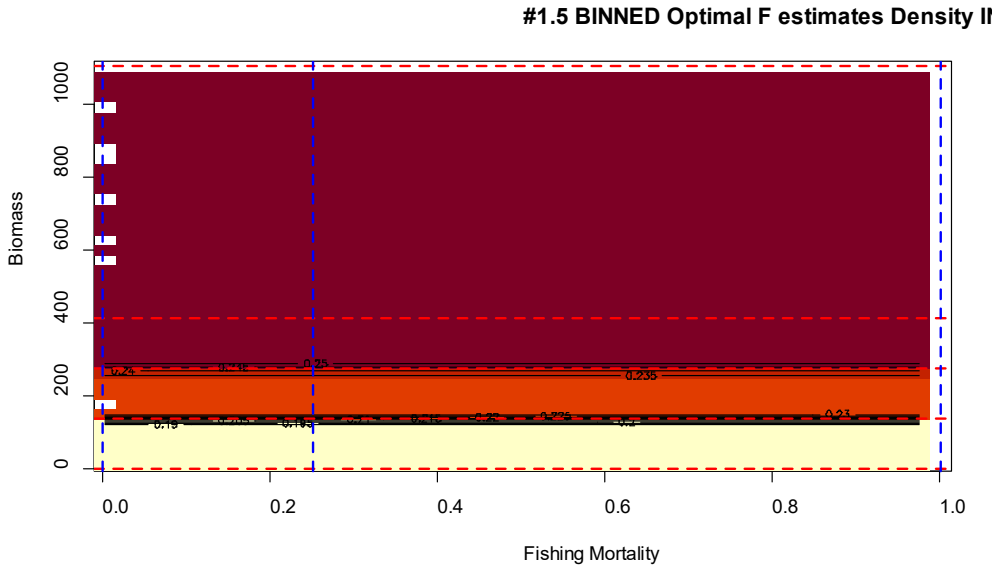


Figure 3. Binned optimal F values representing the average Fopt within each population state defined by the horizontal and vertical cut points. Lighter colors represent lower average fishing mortality rates.

Figure 3 illustrates that under a given population state, a common F would be applied. The use of averages of F_{opt} for each bin implies slightly different cumulative catches over the period T. Figure 4 shows the cumulative catches with unique F_{opt} values. Figure 5 shows the same response given average F_{opt} values within bins.

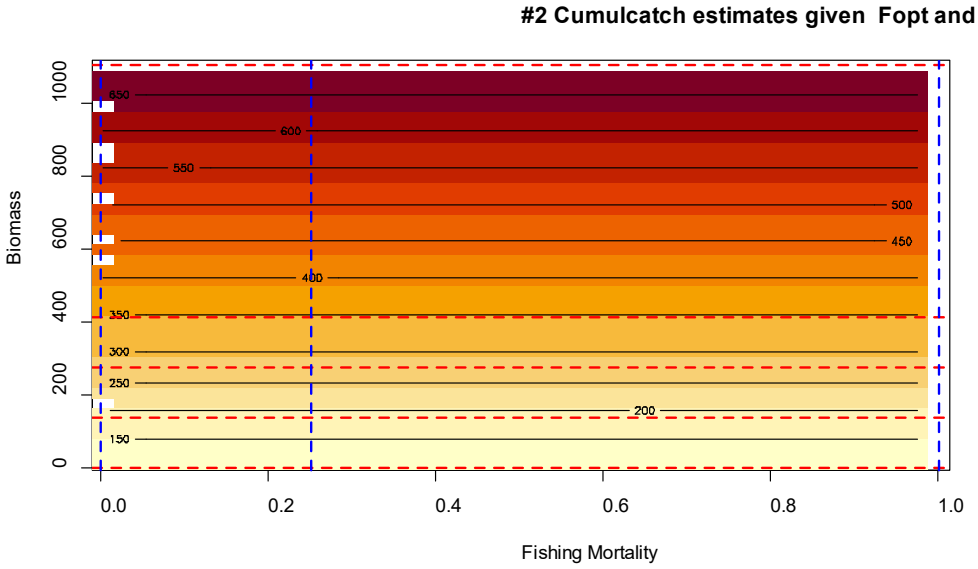


Figure 4. Response surface for cumulative catches over a T=5 yr period give F_{opt} for each level of initial biomass B_t and initial Fishing mortality F_t. See Fig. 2. Note that cumulative catch is unaffected by F_t.

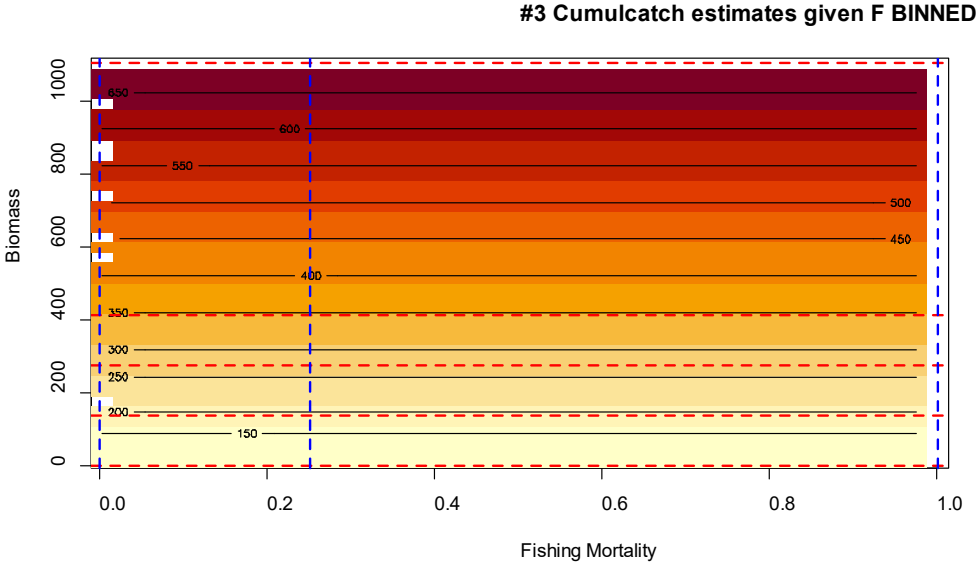


Figure 5. Response surface for cumulative catches over a T=5 yr period given BINNED F_t for category. See levels in Fig. 3. Note that cumulative catch is unaffected by F_t.

Effects of Random Recruitment and Binning

Results thus far have considered a deterministic model only. Random recruitment, combined with binned HCR might be expected to increase the variability of the catches. Recruitment was modeled as a uniform random number between R.min and R.max. See Table 1 for list of all model parameters.

First, consider the implications of random recruitment on cumulative catch (Fig. 6 top).

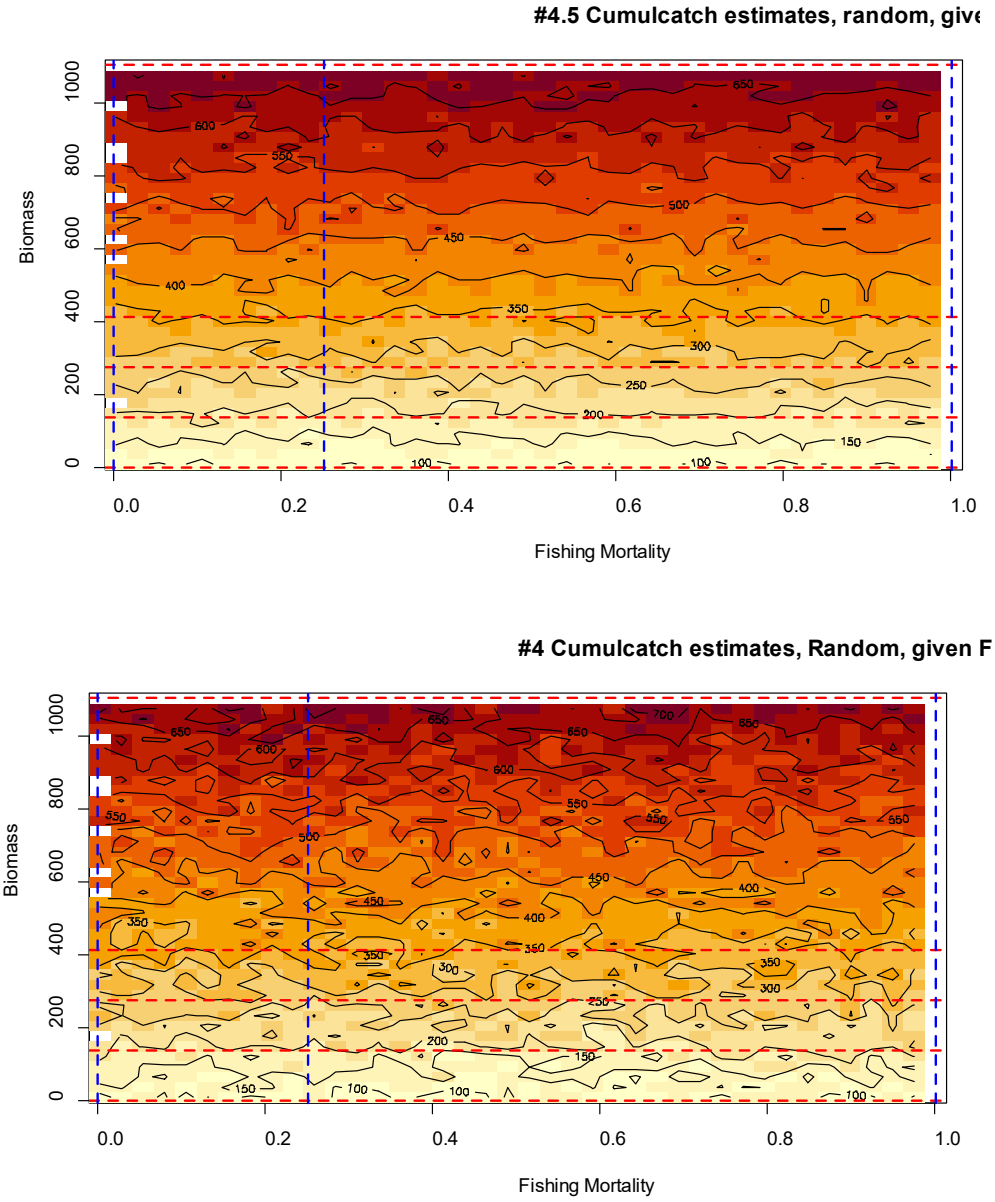


Figure 6. Cumulative catch as a function of initial density with random recruitment only and optimal F based on initial density (top). Cumulative catch with random recruitment AND binned F control (Bottom).

The mean and variance of cumulative catch did not change appreciably under the random Recruitment vs random recruitment with binned controls.

The efficacy of control measures can also be examined with respect to their ability to achieve target biomass levels. In this case the target was defined as being 90% or more of the B_{MSY}. In other words, successes were defined as outcomes where $B_t > 0.9\ B_{MSY}$.

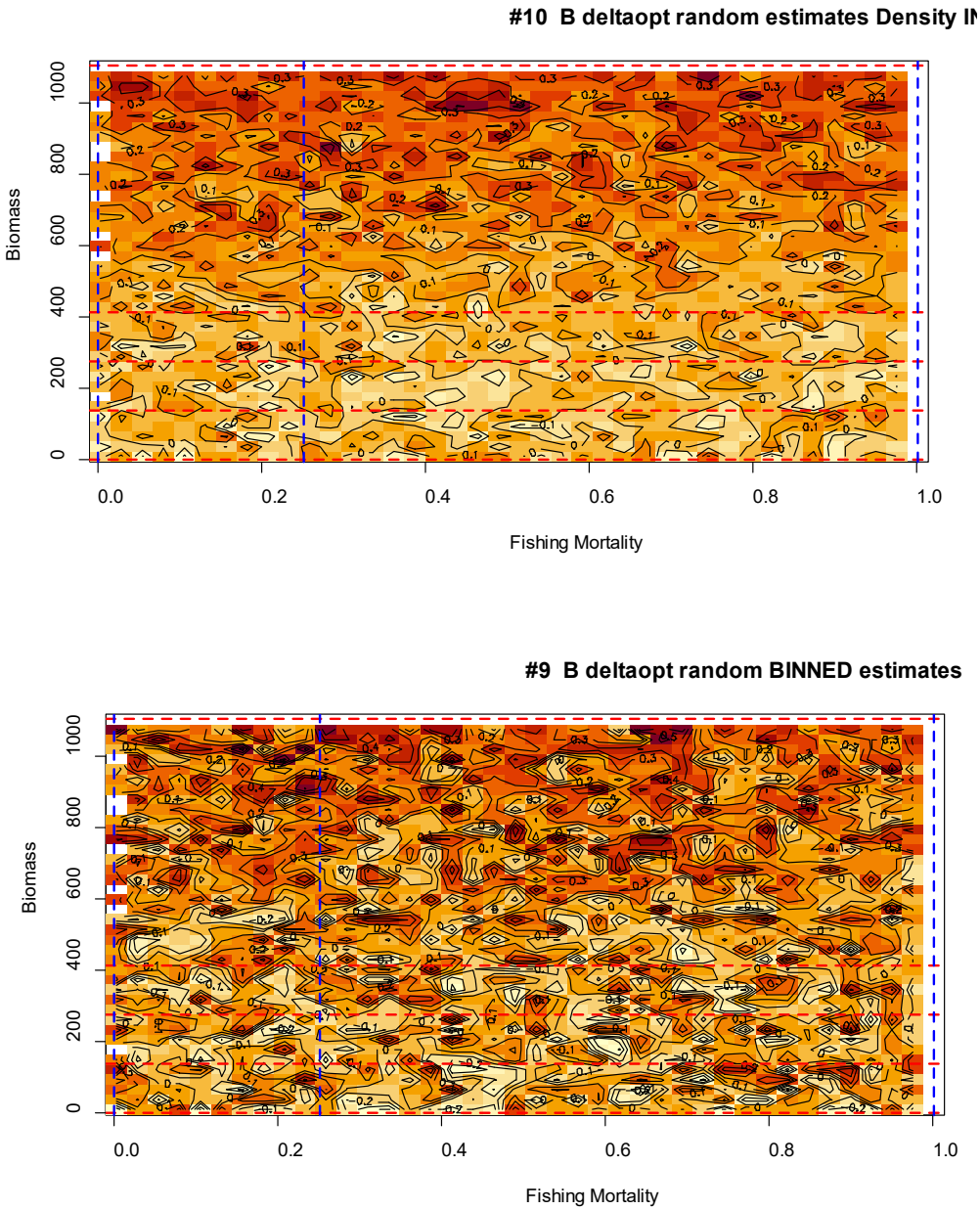


Figure 7. Difference in terminal biomass B_{t+T} and B_{MSY} as a function of initial density with random recruitment only and optimal F based on initial density (top). Cumulative catch with random recruitment AND binned F control (Bottom).

Are Binned Measures Sufficient?

One measure of the efficacy of binned controls is whether or not the measures achieve the desired target of achieving B_{MSY} over the planning horizon T. This property was tested by comparing the initial state of the population with the final state of the population after 5 years. Ideally, the derived F_{opt} should be sufficient to achieve B_{MSY} irrespective of the binning or magnitude of random recruitment. For the deterministic case, Fopt was sufficient to return the population to a not overfished state.

The rows below represent the initial state of the biomass, the columns represent the final state of the population after 5 years of applying F_{opt} for every biomass value or an average F_{opt} depending on the initial bin.

```
> tapply(HCR.opt$F.opt,list(HCR.opt$B.status, HCR.opt$B.poststatus.det),length )
           Not Overfished
Overfished            300
Low                   300
High                  350
Very High            1550

> tapply(HCR.opt$F.opt,list(HCR.opt$B.status, HCR.opt$B.poststatus.det.bin),length )
           Not Overfished
Overfished            300
Low                   300
High                  350
Very High            1550
```

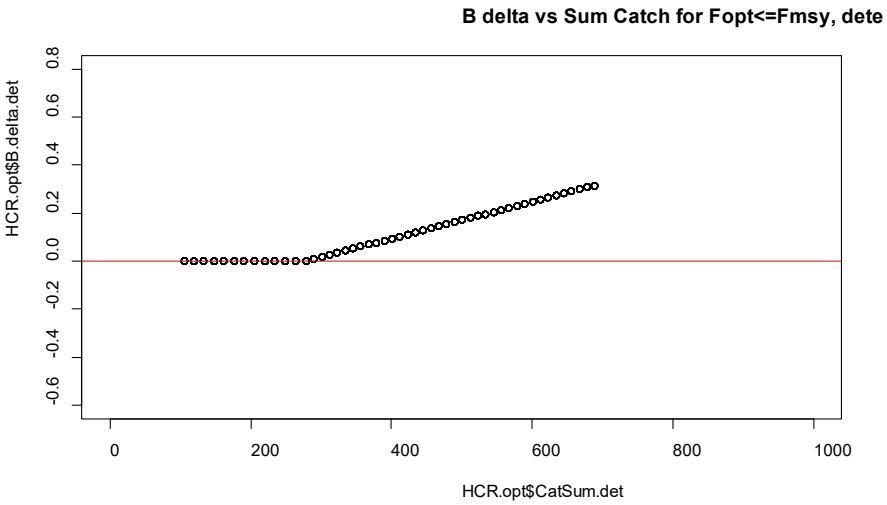
The effects of random variation in recruitment on the ability to recover the population degraded as shown in the table below. Note that populations that were initially overfished remained overfished in 69 of 300 cases (23% failure rate). A similarly high rate of failure occurred for populations that were low, but not overfished. Perhaps more disturbing, populations that were high had a 21% failure rate. Only 3.6% of the very high abundance populations became overfished.

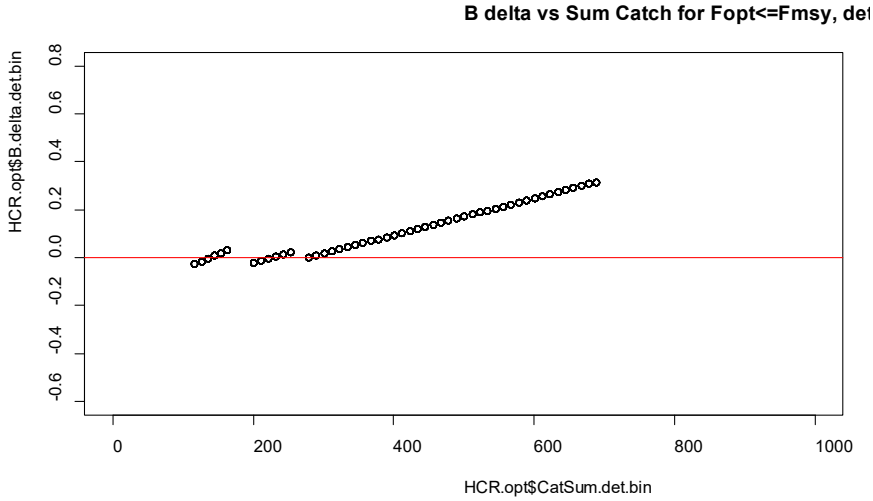
```
> tapply(HCR.opt$F.opt,list(HCR.opt$B.status, HCR.opt$B.poststatus.ran),length )
           Not Overfished Overfished
Overfished            231         69
Low                   231         69
High                  287         63
Very High            1494         56
```

The joint effects of random variation and binned controls are shown below. The success rate for achieving a not overfish population declined to 61.7% vs 77% when binning did not occur. The failure rate for stocks that were not initially overfished increased significantly with binned controls. For example, 19.1% of the populations initially at very high levels fell into an overfished condition. The ratio of failures when binned to unbinned controls is 296/56=5.3x. The odds ratio for this comparison is 6.3 =(1494*296)/(1254*56). The odds ratio for populations initially in a high population state is 2.5=(287*125)/(225*63).

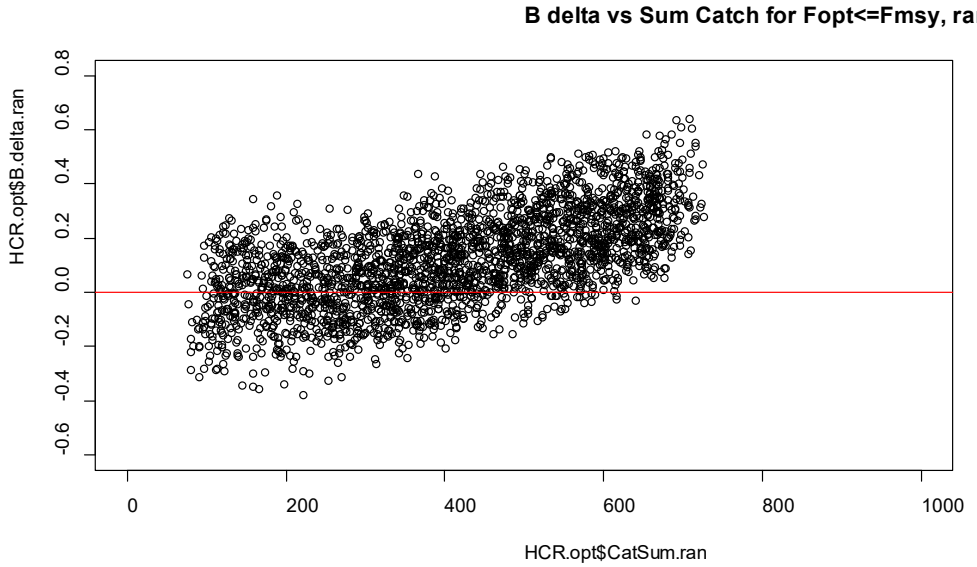
```
> tapply(HCR.opt$F.opt,list(HCR.opt$B.status, HCR.opt$B.poststatus.ran.bin),length )
           Not Overfished Overfished
Overfished            185        115
Low                   186        114
High                  225        125
Very High            1254        296
```

The following graphs illustrate the effects random Recruitment and binning on variation in B_{delta} are shown below. Note that the effect of binning is to result in negative population trends when biomass is low within the bin.

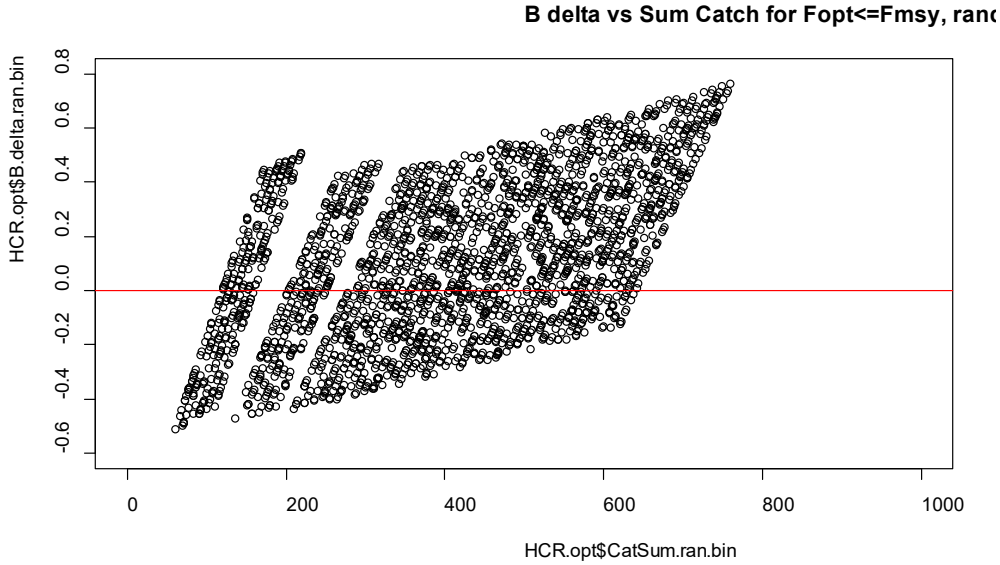

B delta vs Sum Catch for Fopt<=Fmsy, dete
HCR.opt$B.delta.det
0.8
0.6
0.4
0.2
0.0
-0.2
-0.4
-0.6
0
200
400
600
800
1000
HCR.opt$CatSum.det


B delta vs Sum Catch for Fopt<=Fmsy, det
HCR.opt$B.delta.det.bin
0.8
0.6
0.4
0.2
0.0
-0.2
-0.4
-0.6
0
200
400
600
800
1000
HCR.opt$CatSum.det.bin

When random variation is added to recruitment, the patterns become more interesting.



Note that the general "lazy J" pattern evident it the deterministic patter is preserved but the number and magnitude of population declines increases, especially when B is less than B_{MSY}. Superposition of binning on top of random variation (shown below) dramatically alters the resulting pattern with more "structure" induced by the bins and more failures.



Preliminary Conclusions

A simple population model was used to characterize the magnitude of uncertainty induced by binning of control rules. When combined with random variation, there was a marked increase in the failure rate of controls. Populations were not rebuilt as frequently as occurred with population specific optimal fishing

mortality rates. Perhaps more importantly, a greater fraction of populations that were previously above B_{MSY} fell below ½ B_{MSY} when controlled with a binned HCR.
The model used herein, although highly simplified, has properties similar to models used for stock assessments in the Mid Atlantic regions. The HCR implementation is highly simplified and ignores the potential changes in population state that might occur when a population is driven by random recruitment. Specifically, one could adjust the fishing mortality to different population states within the 5-yr projection period. However, it should be noted that neither of the scenarios with random recruitment made such adjustments.

The simulations are indicative but not definitive. I did not evaluate Options B, C or E and the simulation of Option D does not include the additional considerations of whether B or R are increasing or decreasing. Option D includes 13 possible controls rather than the 8 used in this exercise. The simulations may be sufficient to justify the general hypothesis that binning of controls could be problematic if the bins are too wide and the duration between updated of controls is too long.

RECREATIONAL HARVEST CONTROL RULE ADDENDA/FRAMEWORK

PUBLIC COMMENT SUMMARY DOCUMENT

May 2022

Prepared by the Atlantic States Marine Fisheries Commission

Sustainable and Cooperative Management of Atlantic Coastal Fisheries

TABLE OF CONTENTS

1 INTRODUCTION AND COMMENT SUMMARY

1.1 OVERVIEW

This document summarizes public comments on the Recreational Harvest Control Rule Addenda and Framework. Through this action, the Mid-Atlantic Fishery Management Council (Council) and the Atlantic States Marine Fisheries Commission (Commission) are considering potential modifications to the Fishery Management Plan (FMP) by considering changes to the process for setting recreational bag, size, and season limits (i.e., recreational measures) for summer flounder, scup, black sea bass, and bluefish. Key goals include providing greater stability and predictability in the recreational fishery management measures from year to year. Additional information can be found by accessing the draft addenda:
http://www.asmfc.org/uploads/file/623a4c14HCR_DraftAddenda_PublicComment_March2022.pdf

Eight virtual public hearings were held between March 16 and April 13, 2022, targeted toward certain states or regional groupings of states (Table 1). Hearings were attended by 164 people in total (excluding Council and Commission staff). Not all attendees provided comments.

Written comments were accepted from March 2, 2022 through April 22, 2022. In total 458 individuals or organizations either provided written comments (44) or sent in a form letter (414) on this action. Some of these commenters overlapped with those providing comments at hearings.

In total, 522 unique individuals and organizations provided comments during hearings verbally, through the live polling feature or in writing. Attempts were made so that individuals who provided multiple comments (e.g., in person and written, multiple in person, or multiple written comments)

were only counted once towards the tallies included later in this document. In some instances, individuals provided in-person comments on behalf of an organization and those organizations also submitted written comments. In those instances, the individual and the organization comments were counted as one comment. The tables below differentiated comments received from individuals, organizations, and via form letter to help provide a clear picture of the comments received.

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

Table 2 provides a summary of demographic information for those who provided comment on this action. In summary, 88.9% of the 522 individuals and organizations who provided comments were primarily affiliated with the recreational fishery, 0.6% with the commercial fishery, 0.6% with an environmental non-governmental organization, and the remaining 10% of commenters either had multiple affiliations, were classified as other, or did not identify their affiliation. About 80% of the comments associated with the recreational fishery came from the form letter.

Table 1: Draft Addenda public hearing schedule.

Date and Time	Regional Grouping
Wednesday, March 16, 6-8 pm	Virginia
Monday, March 21, 6-8 pm	Maine and New Hampshire
Thursday, March 24, 6-8 pm	Rhode Island
Monday, March 28, 1, 6-8 pm	New Jersey and Delaware
Thursday, March 31, 6-8 pm	Maryland and PRFC
Tuesday, April 5, 6-8 pm	Connecticut
Monday, April 11, 6-8 pm	New York
Wednesday, April 13, 6-8 pm	Massachusetts

Table 2: Number of individuals and organizations who provided in-person and/or written comments by primary affiliation.

Affiliation	Individuals	Organizations	Percent of Total
Private Angler	429	14	84.9%
For-hire (Party/Charter Boat)	11	4	2.9%
Recreational Fishing Industry	3	3	1.1%
Commercial	3	0	0.6%
Environmental Non-governmental Organization	0	3	0.6%
Multiple	1	1	0.4%
Other	1	2	0.6%
Did Not Identify	47	0	9.0%
Total	495	27	522

1.2 COMMENT SUMMARY

Public comments are summarized in the text and tables below grouped by topic: harvest control rule (HCR) approach, target metric for setting measures, conservation equivalency, accountability measure comparisons, general concerns and recommendations on HCR, preferences on HCR metrics, and general comments. Only those topics addressed by more than two individuals or organizations, or those directly related to specific alternatives are included in the summaries below. However, all comments are included in sections 2 and 3 of this document.

The five main HCR approaches received the most attention from commenters compared to all other topics. The percent change approach (option B) received the most support with a total of 460 individuals and organizations in favor of this management option. The fishery score (option C), biological reference point (option D), and biomass based matrix (option E) approaches received similar levels of support at around 16-23 individuals and organizations supporting each of these options. Option A, the no action approach, was by far the least popular option with only 7 individuals in support. Furthermore, 435 commenters stated that they were opposed to no action on this issue. While no comments were submitted in support of either of the sub-options for the percent change approach, one organization commented in opposition to sub-option B-2B.

Comments were also provided on the management issues in sections 3.2, 3.3, and 3.4 of the Draft Addenda. The options in section 3.2 consider which target metric would be used when setting measures appropriate for the set of stock conditions that define each bin under options C-E in section 3.1. Public opinion was evenly split between using a target level of dead catch (i.e., annual catch limit) or a target level of fishing mortality when setting measures for each of the bins, with seven organizations supporting the annual catch limit target and six organizations supporting the fishing

mortality target approach. The options in section 3.3 consider how the Commission's conservation equivalency policy would apply to the management options listed under section 3.1. A total of 40 individuals and organizations who commented on this issue were in support of no action (option A), in other words continuing to allow states to submit conservation equivalency proposals. A total of 28 commenters supported regional conservation equivalency (option B) and five commenters supported disallowing conservation equivalency (option C). The options in section 3.4 consider a change to one component of the reactive accountability measures (AM) under options A, B, C-1, and E-1 in section 3.1. Specifically, they address situations when a reactive AM has been triggered and biomass is above the threshold but below the target level. No one supported no action (option A) and seven commenters supported using fishing mortality compared to a fishing mortality threshold.

Members of the public also provided a wide variety of general concerns and recommendations on the harvest control rule. The majority of the comments could be condensed into reoccurring themes. Four organizations supported postponing action on the Harvest Control Rule Addenda/Framework to allow for more development of all management options and thorough analysis of the impacts of the options. Four commenters supported phasing in implementation of the harvest control rule and implementing the management program for just black sea bass as a pilot. Six commenters expressed serious concerns that implementation of any of the harvest control rule options B-E could lead to increased risk of overfishing. A total of 443 individuals and organizations supported the opportunity to reconsider options C, D and E once the models are complete and analyses have been completed to demonstrate the performance of each approach. Six organizations shared that they were not able to provide comprehensive comments on the proposed action because either they thought the management approaches hadn't yet been fully developed or they preferred to wait until the Mid-Atlantic Fishery Management Council's Scientific and Statistical Committee released their review of the Draft Addendum/Framework. Six commenters spoke of the need to bring stability to recreational management and predictability in setting recreational regulations.

Many individuals and organizations also provided their preferences on which metrics should be used to inform a recreational harvest control rule. A total of 430 commenters supported using additional data besides recreational harvest estimates from the Marine Recreational Information Program (MRIP) when setting recreational bag, size and season limits. Support for utilizing each of the five metrics, sorted from least to most, included 16 in support of MRIP harvest compared to the recreational harvest limit, 36 in support of stock biomass, 38 in support of fishing mortality, 39 in support of recruitment, and 40 in support of biomass trend.

There were many general comments provided at hearings and in written form. While the comments were mostly unique and specific to different issues, some comments could be categorized into reoccurring themes. A total of 15 individuals and organizations shared strong concerns with MRIP data saying they thought MRIP data are either unbelievable, unreliable, or unfit for management. Two organizations commented that the recreational fisheries should be managed for optimum yield, as opposed to maximum sustainable yield. Three individuals commented that the minimum sizes should be reduced for one or more species affected by this action with the goal of reducing discards or protecting the larger fecund females.

Table 3: Summary totals of comments received on the draft addenda. Totals should not be summed between rows as this would result in double counting of individuals and organizations who commented in multiple categories.

Management Issue		Number of Form Letters/Individuals/Organizations			
Section 3.1 – Harvest Control Rule (HCR) Approach		**Form Letter[1]**	**Individuals**	**Organizations**	**Grand Total**
A	No Action	0	7	0	7
B	Percent Change Approach	414	31	15	460
C	Fishery Score Approach	0	12	4	16
D	Biological Reference Point Approach	0	13	4	17
E	Biomass Based Matrix Approach	0	18	5	23
Opposed to no action on this issue		414	13	8	435
Opposed to sub-option B-2B		0	0	1	1
Section 3.2 - Target Metric for Setting Measures		**Form Letter**	**Individuals**	**Organizations**	**Grand Total**
A	Recreational Harvest Limit	0	0	0	0
B	Annual Catch Limit	0	0	7	7
C	Fishing Mortality	0	0	6	6
Section 3.3 - Conservation Equivalency Policy		**Form Letter**	**Individuals**	**Organizations**	**Grand Total**
A	No Action	0	28	12	40
B	Regional CE allowed	0	23	5	28
C	CE is disallowed	0	3	2	5
Section 3.4 - Accountability Measures Comparisons		**Form Letter**	**Individuals**	**Organizations**	**Grand Total**
A	No Action - Catch compared to ABC	0	0	0	0
B	Fishing mortality compared to an F threshold	0	0	7	7

[1] Form letters (more than 3 of the same comment) include comments stating support for an organization's comments; however, if the commenter provided additional comments/rationale for management beyond the organization's comments, then it was considered an individual comment.

Management Issue	Number of Form Letters/Individuals/Organizations			
General Concerns and Recommendations on HCR	**Form Letter**	**Individual**	**Organization**	**Grand Total**
Supported postponed action	0	0	4	4
Supported phasing in implementation and piloting HCR for black sea bass	0	1	3	4
Serious concerns that HCR could lead to overfishing	0	1	5	6
Supports reevaluation of options C, D and E once measures and models are finalized	414	14	15	443
Unable to comment because HCR options haven't been fully developed and/or require review by SSC	0	0	6	6
Supports stability and predictability in setting recreational regulations	0	5	1	6
Preferences on HCR Metrics	**Form Letter**	**Individual**	**Organization**	**Grand Total**
Supports using additional data besides MRIP harvest estimates to set bag/size/season limits	414	11	5	430
MRIP harvest compared to the RHL is an important metric	0	14	2	16
Recruitment is an important metric	0	31	8	39
Stock biomass is an important metric	0	30	6	36
Biomass trend is an important metric	0	33	7	40
Fishing mortality is an important metric	0	33	5	38
General Comments	**Form Letter**	**Individual**	**Organization**	**Grand Total**
Strong concerns with MRIP data; unbelievable/unreliable	0	6	9	15
Recreational fishery should be managed for optimum yield	0	0	2	2
Minimum size should be reduced to reduce discards and/or protect females	0	3	0	3

2 PUBLIC HEARING SUMMARIES

A summary of each public hearing is provided below. Comments are summarized by hearing and each individual's comments are paraphrased. An interactive polling feature was also used for these hearings, and the results from the polls are included within the tallies of all comments received on this action, which can be referenced in table 3.

2.1 VIRGINIA

Wednesday, March 16, 2022, 6:00 p.m.

Attendees: (29 excluding Council/Commission staff): David Agee, Alex Aspinwall, Steve Atkinson, James Boltz, William Bradley, Skip Courtney, Nico Craig, John DePersenaire, Greg DiDomenico, Michelle Duval, Alexa Galvin, Pat Geer, Lewis Gillingham, Emily Keiley, Brooke Lowman, Shanna Madsen, John Mohan, Susanna Musick, William Pappas, Alexander Perez, Will Poston, Bob Pride, Jill Ramsey, Tyler Rowe, Somers Smott, Wes Townsend, Rick Vaughan, Wally Veal, Mike Waine.

Summary: The meeting started with an introduction and briefing from the hearing officer Pat Geer (VA). Following the presentation, several attendees asked clarifying questions. Five members of the public offered public comment on the HCR alternative sets. The majority of comments were focused on the concerns over the use of MRIP data to set regulations, and the desire for better accountability and regulations going forward. Several commenters want the states to retain the ability to use the Commission's conservation equivalency process. Questions from the public mainly focused on how measures are currently being set and how the different HCR options would approach the task of setting measures for the recreational sector. Additional questions focused on accountability measures and the role of conservation equivalency. Hearing officer Shanna Madson (VA) closed the meeting out.

Comments

- **Tyler Rowe (Charter Captain - Virginia)**: The use of MRIP is a big concern for the charter industry when it comes to future regulations. The data collected is often skewed and unreliable. The managers and MRIP staff are not seeing what is really happening out on the water. Overall, the charter industry would like to see better regulations and accountability moving forward.
- **James Boltz (Charter Captain - Virginia)**: I think that when you require a change in measures, it should be up to each state to determine what the new measures are. We want the states to have greater flexibility in setting their own measures. Here in Virginia, we were willing to shorten the summer black sea bass fishing season in order to allow for a February fishery.
- **Steve Atkinson (VA Saltwater Sportfishing Association - Virginia)**: We appreciate the opportunity to provide input and make comments. If we get no clear resolution on this harvest control rule approach by 2023, then the right thing to do is ignore the MRIP numbers. I believe that it was mentioned that the black sea bass stock is twice the biomass target level and a healthy stock. Why would we want to use MRIP data, which we know is suspect, to determine management actions for black sea bass? I am sure I speak for others when I say I want a better approach.

- **Bob Pride (Recreational Angler and Tackle Shop Owner - Virginia)**: The current timeline of completing regulations as late as March for the current fishing year is a problem for tackle shops, and we would like the process to be done earlier.
- **William Pappas (Charter Captain - Virginia)**: The last minute closure of black sea bass hurt a lot of people, and the use of MRIP data is not appropriate. Who sets the RHL? If you're using the best information, then you would want to make sure you continually add information and update the information. The system is broken, and we need new approaches to set measures. It also isn't appropriate that Virginia has to battle with another state to make things better in Virginia when regional conservation equivalency is used.

2.2 Maine and New Hampshire

Monday, March 21, 2022, 6:00 p.m.

Attendees (9 excluding Council/Commission staff): Clarisse Brown, Michelle Duval, Peter Fallon, Emily Keiley, Adam Nowalsky, Cheri Patterson, Will Poston, Wes Townsend, Megan Ware

Summary: The meeting started with an introduction and briefing from the hearing officer Cheri Patterson (NH). This hearing experienced low turnout and as a result there were only two individuals who provided had questions on the management issues. More time was needed by attendees to understand the content and provide feedback. Questions were asked about the data inputs for the various options, and what the Scientific and Statistical Committee's role in the process will look like going forward. Hearing officer Megan Ware (ME) provided closing remarks.

Comments

No comment offered.

2.3 RHODE ISLAND

Thursday, March 24, 2022, 6:00 p.m.

Attendees: (15 excluding Council/Commission staff): Chris Batsavage, Rick Bellavance, Dave Daly, Michelle Duval, Dan Farnham, Steve Haasz, Rich Hittinger, Raymond Kane, John Lake, Michael Lombardi, Jason McNamee, Will Poston, Peter Randall, Eric Reid, Wes Townsend.

Summary: The meeting started with an introduction and briefing from the hearing officer Jason McNamee. Following the presentation, several attendees asked clarifying questions. Three members of the public offered comments on the HCR option sets.

All comments supported change from the status quo recreational measure setting process, but commenters were unsure of which option to fully support. Concerns were raised over not knowing what measures would be under the different alternatives. One member from the public asked for clarification about how the target metric of recreational dead catch compared to recreational fishing mortality would be used. The same individual asked for an update on the progress of the models and when they could be used. Other questions included concerns about the influence of MRIP in this process through the modeling efforts, and a recommendation to clarify how accountability measures will work in future presentations. The hearing officer then closed the meeting out.

Comments

- **Rich Hittinger (RI Saltwater Anglers Association – Rhode Island)**: We will be submitting written comments at a later date, but one thing I wanted to say is that we strongly recommend some sort of change. We do not agree with option A, no action. What we see happening is that while a stock is healthy, we are still required to take a significant cut in measures, while fluke, which everyone sees as declining, is getting a liberalization in measures. We had many people asking what was happening with black sea bass and fluke at the fishing show we were at last weekend. It makes no sense at all to the people who are fishing, and that's why recreational management needs to be changed so it considers biomass. Currently, we will probably be interested in supporting option D, but we really need to look into more details of the options.
- **Rick Bellavance (RI Party and Charter Boat Association – Rhode Island)**: I agree with Rich's comments in that the way we manage these fisheries isn't working. But I am uncertain about how the alternatives crafted in this document are going to change things or make things better. Using black sea bass as an example, biomass is at a good level and so under one of the HCR options would be listed as the best level. But if the current measures are considered the most liberal that would be horrible. I don't know what comment to provide without having any idea about how the measures are going to change. Is it possible to throw away current measures and start with new ones? How does this mesh with catch estimates? It's not clear in the document how that will work out, so it's hard to offer good input. I do think I'll like another option other than A, but I am not sure what to support right now.

- **Peter Randall (Mate on C-Devil II Sportfishing – Rhode Island):** This was a great presentation and I agree heavily with Rick. It's hard to visualize what the future will look like without seeing what measures would be. It would weigh heavily on our decisions.

2.4 New Jersey and Delaware

Monday, March 28, 2022, 6:00 p.m.

Attendees: (63 excluding Council/Commission staff): Mary Benson, Dan Bias, Jeffrey Brust, George Burns, Nick Cicero, Michael Celestino, Joe Cimino, John Clark, Peter Clarke, Heather Corbett, Greg Cudnik, Dave Daly, Richard Danner, Robert Davis, John DePersenaire, Robert Degirarde, Alfred DiMartino, Michelle Duval, Andrew Fedkiw, Thomas Fote, Thomas Gordon, Paul Haertel, Brenden Harrison, Victor Hartley, Jim Hutchinson, Jeff Kaelin, Raymond Kane, Emily Keiley, Jim Lutz, John M, Michael Zaleski, Roy Miller, Brian Moroz, Steven Morris, Paul Mulholland, Adam Nowalsky, Will Poston, Joseph Procopio, James Rausch, Steven Reynolds, Brian Ribarro, Bob Rush, Bill Shillingford, Marc Sherry, Philip Simon, Thomas Smith, David Stormer, Mark Taylor, Jason Thomas, Wayne Thomas, Scott Thomas, Bob Topham, Bryson Torgovitsky, Wes Townsend, Arnold Ulrich, Ken Warchal, John Ward, Joseph White, Charles Williams, Ted Wood, Edward Yates, Harvey Yenkinson, Gerard Zagorski.

Summary: The meeting started with an introduction and briefing from hearing officers Joe Cimino (NJ) and John Clark (DE). Following the presentation, several attendees asked clarifying questions. Nine members of the public offered public comment on the HCR alternative sets.

The majority of comments supported option B due to concerns over the uncertainty and level of development of options C, D, and E. Overall, commenters did not want to see option A, status quo, continue. One commenter supported options C or D. Several comments addressed the concern of unpredictably in these fisheries and the continued struggle, if not inability, to make business plans.

A member from the public wanted to know if the predetermined measures will be available to the public before final action, to which staff responded that this would be unlikely unless final action was delayed. Other members wanted to know what would happen if the models and the option selected doesn't work and staff said that the PDT/FMAT has been discussing contingency plans for a bridged approach using traditional analytical methods to implementing pre-defined measures for the HCR options with bins. Other questions included the role of VTR data in the HCR process, how often biomass trends will be evaluated, and what the timeline for action is moving forward. The hearing officer, Joe Cimino (NJ), then closed the meeting out.

Comments:

- **Philip Simon (Village Harbor Fishing Club – New Jersey)**: I think that this is a problem that needs to be solved. One of the problems is that when you have a healthy stock, like black sea bass, and assuming you have constant fishing effort, the end result is that people catch them and we continue to go over the RHL. Then we have to put in a decrease and it's a constant cycle. I don't see this being solved by option A or B, and I would pick C or D. They have a better chance of dealing with the black sea bass situation. I'm not sure about option E. Page 37 of the

draft document demonstrates that option B calls for a reduction if it were implemented today. If you're happy with that, then go for option B.

- **John DePersenaire (Recreational Fishing Alliance – New Jersey)**: I wanted to say that we are really supportive of the Council/Commission addressing this and bringing about a change to the recreational specifications setting. We are all frustrated by the situations that continue to occur in the black sea bass fishery. I wish the options were developed more at this point. It's hard for the public to determine which option works the best. I wish we could plug 2022 data in to see what the options would look like. It's hard for us to support anything but B. Relying on default measures which are not yet developed and won't be ready for final action makes me hesitant to support all of the other options.
- **Nick Cicero (Folsom Corp – New Jersey)**: I would like to see our industry, the charter industry, be able to plan ahead. This also includes tackle shops, dealers, and the for-hire sector. We would like to have a greater lead time in planning our businesses out.
- **Bob Rush (United Boatmen of NJ – New Jersey)**: I agree with Nick and John; MRIP has not been proven accurate. From a business perspective, we cannot keep operating this way. There is a lot of uncertainty around these new approaches. The lesser of the evils is option B.
- **Gerard Zagorski (New Jersey)**: I echo Bob and John's comments. I think C, D, and E are viable, but due to uncertainty around them I am hesitant. A isn't an option, so I think option B. I would like to see if we could run some models or data to see how the other options would work out before final action.
- **Paul Hartel (Jersey Coast Anglers Association – New Jersey)**: I agree with the others that due to the uncertainty, I support option B.
- **Victor Hartley (Keyport Princess – New Jersey)**: I agree with Bob and Jim and support option B. Options C, D, and E are too underdeveloped.
- **Thomas Gordon (New Jersey)**: I agree, and I want option B since C, D, and E are underdeveloped. I am also interested in efforts to improve survey data.
- **Harvey Yenkinson (MAFMC Advisory Panel Member – New Jersey)**: I am concerned with the complexity of options that NOAA comes up with. We don't use common sense when making these decisions, and there is a lot of inaccurate information. In my opinion, the more we add these metrics into the pot then the more we go the wrong way. I am afraid that if we use a complex option that we are going to use a formula that is no longer sensible.

2.5 Maryland and Potomac River Fisheries Commission

Thursday, March 31, 2022, 6:00 p.m.

Attendees: (25 excluding Council/Commission staff): Steven Anderson, C. Dollar, Steve Doctor, Michelle Duval, Lynn Fegley, Martin Gary, Lewis Gillingham, Sonny Gwin, Monty Hawkins, Harry Hornick, Emily Keiley, Scott Lenox, Michael Luisi, Kevin McMenamin, Randy Million, Mohamed Nabulsi, Adam Nowalsky, Denise Oden, Bert Olmstead, Eric Packard, Will Poston, Eric Reid, Lenny Rudow, Buddy Seigel, Angel Willey.

Summary: The meeting started with an introduction and briefing from the hearing officer Michael Luisi (MD). Following the presentation, several attendees asked clarifying questions. Two members of the public offered public comments.

Most comments offered did not support any one option, but instead expressed concerns over MRIP and how the RHL is set. One commenter supported option E due to no input for MRIP.

Questions from the public centered around clarification of how the RHL is calculated and the Commission CE options presented. The hearing officer, Michael Luisi (MD), then closed the meeting out.

Comments

- **Lenny Rudow (Fish Talk Magazine & Recreational Angler - Maryland)**: Option E eliminates the MRIP from consideration from the equation. I choose the options that do not include consideration of MRIP numbers because, when they're broken down, they're ridiculous. It's like they're built on a house of cards.
- **Kevin McMenamin (Annapolis Anglers Club, President - Maryland)**: Having the RHL set on yield is more of a commercial approach, and it is a misnomer. My recreational anglers would like to see the RHL set more on abundance.
- **Buddy Seigal (Atlantic Coast Sportfishing Association, Ocean Pines Anglers - Maryland)**: The question comes down to the general public not understanding the concept of what is being approached, how it's being approached. What they see at the local level is something very small, and trying to extrapolate that out doesn't make sense.

2.6 CONNECTICUT

Tuesday, April 5, 2022, 6:00 p.m.

Attendees: (19 excluding Council/Commission staff): Mark Alexander, Bruce Calvin, Raymond Castano, Justin Davis, Greg Dubrule, Michelle Duval, Matthew Gates, Raymond Kane, TJ Karbowski, Emily Keiley, Louis Marrella, Richard McCarthy, Jerry Morgan, Michael Pirri, Michael Plaia, Will Poston, R. Stec, Mike Waine, Eric Zlokovitz.

Summary: The meeting started with an introduction and briefing from the hearing officer Justin Davis. Following the presentation, several attendees asked clarifying questions. Four members of the public offered public comments.

Most comments offered did not support any one option, but instead expressed concerns over MRIP and the lack of use of VTR data. One commenter supported option C.

Several questions from the public were received. They included clarification about the use of VTRs in the HCR process, how the CE process will work regarding the federal process, how the models will work, and how the projections will be used from the stock assessment. One member asked for the history of this action, and how we got to where we are today. Then the hearing officer Justin Davis provided closing remarks.

Comments

- **Michael Pirri (Flying Connie - Connecticut)**: If I had to pick now, I would support option C because it outperforms the other options in my opinion.
- **Greg DuBrule (Owner/Operator party boat Black Hawk - Connecticut)**: I've been in the business for over 50 years. There are not a lot of people in this industry that come onto these things because they're disgusted by it. What other data besides MRIP do you use to come up with this? We have no confidence in MRIP, and that's why people don't want to participate. We've got professionals here that are out on the water. We fill out VTR reports, and then we find out they aren't even used. You'll get better information from locals out on the river than from MRIP staff. I want to protect these species, but the way you go about this stuff is so flawed it's unbelievable. As far as what option, it doesn't make a difference to me.
- **TJ Karbowski (Rock & Roll Charters - Connecticut)**: I don't trust MRIP, I don't trust their motives, so I am trying to figure out their involvement with this action.
- **Mike Waine (American Sportfishing Association)**: We were originally supportive of this, so I'll try to provide clarity on why this action is being taken. We proposed the idea to scale access to the resource based more on the status of the resource, considering its health rather than being reactive to catch estimates from MRIP. I just want to clarify that these approaches aim to look at information besides MRIP catch data.

2.7 NEW YORK

Monday, April 11, 2022, 6:00 p.m.

Attendees: (28 excluding Council/Commission staff): Adam Nowalsky, Antoinette Clemetson, Jim Gilmore, Carl LoBue, Chris Batsavage, Chris Spies, Dan Farnham, Emerson Hasbrouck, Emily Keiley, James O'Connor, John DePersenaire, John Maniscalco, Joseph Beneventine, Ken Wojtak, Louis Morace, Matt Broderick, Maureen Davidson, Meghan Lapp, Melissa Dearborn, Michelle Duval, Mike Waine, Molly Masterton, Neil Delanoy, Nelson Breen, Paul Kim, Renato Vojka, Rick Vaughan, Tom Schlichter

Summary:

The meeting started with an introduction and briefing from the hearing officer Maureen Davidson (NY). Following the presentation, several attendees asked clarifying questions. Three members of the public offered public comment on the HCR alternative sets. Two of these three members of the public preferred option B, while the third discussed her overall concerns with all of the alternatives, mostly related to how these options comply with the Magnuson-Stevens Fishery Conservation and Management Act (MSA).

Questions from the public focused on how conservation equivalency would work with some of the options and whether changing percent reductions or suboptions from what is currently in the draft addendum would be allowed, if there was a desire to do so. The hearing officer Maureen Davidson closed the meeting out.

Comments

- **Neil Delanoy (Executive Director of the Captree Boatman's Association / Charter Captain – New York)**: Option B is probably the best way to go for now; there is too much uncertainty with the other options. Maybe someday we'll get there for the other options. I need to review the sub-options further, I will respond to them in a written comment.
- **John DePersenaire (Recreational Fishing Alliance - New Jersey):** We're in support of option B, because we feel it's the most developed option at this point, and the only real option we have the ability to understand what it's going to do prior to taking final action. We just don't feel comfortable supporting C, D, or E still knowing there's a lot of work to do with the modeling approach and figuring out what those pre-set measures will be. A lot of commercial fishermen were supportive of recreational reform, especially back during the allocation discussions, but no commercial fishermen have shown any support for this. We will also be submitting written comment.
- **Molly Masterton (Natural Resource Defense Council – New York)**: NRDC is still thinking about how we can meet the stated goals of this effort and select between alternatives while still remaining within the framework of ACLs and accountability measures that Magnuson-Stevens has set up to prevent overfishing. We're pleased that these issues are receiving a full review by the SSC, to ensure they comply with MSA mandates and meet the scientific rigor that's key to managing these fisheries. Some of these alternatives would set measures over two-year cycles, which immediately raises questions in regards to ACLs and AMs. Under Magnuson, when an ACL is exceeded at the end of a fishing year, the Council is required to implement AMs to make

sure catch is brought under the ACL as soon as possible, so we need to think more about how these would work on the water. Also, we need to consider if any of these untested approaches increase management uncertainty. If there's a chance of increased management uncertainty, we could consider uncertainty buffers that I believe aren't currently implemented for these fisheries. We will also be submitting written comments through the NGO community.

2.8 MASSACHUSETTS

Wednesday, April 14, 2022, 6:00 p.m.

Attendees: (18 excluding Council/Commission staff): Adam Nowalsky, Al Williams, Bob DeCosta, Daniel Mckiernan, Derek Perry, Emily Keiley, Ivy Fredrickson, John DePersenaire, Melissa Dearborn, Michael Pierdinock, Michelle Duval, Nichola Meserve, Raymond Kane, Rich Wood, Richard Nealley, Scott Steinback, Tiffany Hodkinson, Will Poston

Summary: The meeting started with an introduction and briefing from the hearing officer Nicola Meserve (MA). Following the presentation, several attendees asked clarifying questions. Three members of the public offered public comment on the HCR alternative sets, with all three preferring option B. Questions comprised the majority of public participation in this hearing.

Questions were primarily focused on obtaining further clarification on option B and its sub-options, and obtaining more information on the North Atlantic Recreational Fishing Survey that recently went out to the public. Other questions centered around how MRIP data is involved with the options and accountability measures, whether the sector allocations and consequently the RHL will still need to be adhered to if the recreational sector continues to grow, and what the predetermined measures were in options C, D, and E. The hearing officer Nichola Meserve closed the meeting out.

Comments

- **Raymond Kane (Cape Cod Fishermen's Alliance – Massachusetts)**: Massachusetts is caught behind the 8-ball. We don't get wave 6 results until the middle of February, and then the Commission/states need to turn around things quickly for May. The Mid-Atlantic Fishery Management Council needs to address this issue.
- **Michael Pierdinock (Stellwagen Bank Charter Boat Association, President - Massachusetts)**: As an association, we had meetings and discussed this to help our membership to understand the concepts. We commend the efforts to get to this point and have it assembled to address our ongoing frustration with MRIP. We see it as an opportunity for the HCR to address these problems. We're for the concept of C, D, and E, but since we don't know the outcomes of the models we can't support them. We suggest implementing option B for two years then run models for C, D, and E and see what the outcome is. Then have those results go out for public comment. At least B uses MRIP estimates with the status of the stock to come up with decisions. For conservation equivalency, even internally within Massachusetts we have issues deciding conservation equivalency. We prefer state-level conservational equivalency.
- **John DePersenaire (Recreational Fishing Alliance – New Jersey):** The RFA is on the same page as Mike, we support option B. We see the applicability of C, D, and E for certain species and may be viable, but we are uncomfortable supporting an option without knowing what the

measures will be. We have this understanding that we can come back and revisit options once they're more fleshed out. We also support state-level conservation equivalency, as we see problems with regional.

- **Melissa Dearborn (Regal Marine Products, Inc., Owner; New York Fishing Tackle Trade Association, Vice President – New York):** We support option B, but will submit official written comments. I am also concerned about other individual's comments that a few percentage points of reduction or liberalization don't make a huge difference to the recreational sector. My perspective in running a business is that every day of a fishing season matters, and one percentage point can make the difference for a longer season.

3 WRITTEN COMMENTS

American Sportfishing Association Form Letter:

Dear Mr. Leaning,

As an avid angler who values catching summer flounder, scup, black sea bass and bluefish, I support using additional information besides recreational harvest data to establish bag, size and seasons that better reflect the status of the resource.

Therefore, I do not support status quo and urge managers to implement alternatives that use more than just recreational harvest data for determining measures.

However, choosing a specific alternative is difficult without knowing the outcomes of options C, D & E in terms of measures.

Option B is better than status quo and I support getting the opportunity to re-evaluate the other options (C, D and E) once measures or harvest levels for those alternatives are known.

Thank you for the opportunity to comment on this important issue.

From: Scott Jeffrey [mailto:eastendbt@gmail.com]

Sent: Friday, April 22, 2022 4:23 PM

To: Comments <comments@asmfc.org>

Subject: [External] Harvest Control Rule Comment

After reviewing the options provided it would seem best to me that option "D" would serve the recreational anglers best.

Having thirteen measures or reference points would serve best allowing the restrictions or regulations to be adjusted over time in smaller increments. Thirteen preset benchmarks also eliminates the guesswork by the authorities and allows the anglers to have a little more confidence in the system. The smaller increment changes would have less of an effect on the local economies but would allow for the fisheries to recover as planned.

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Thank you,

Scott Jeffrey

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Hampton Bays, NY 11946

Ph: 631-728-1744

scott@eastendbaitandtackle.com

www.eastendbaitandtackle.com

From: kevin@annapolisanglersclub.com [mailto:kevin@annapolisanglersclub.com]

Sent: Friday, April 22, 2022 4:12 PM

To: Comments <comments@asmfc.org>

Subject: [External] Harvest Control Rule

Hello ASMFC and MAFMC Commissioners.

As President of the Annapolis Anglers Club, I represent over 650 Recreational Anglers who are alarmed and concerned with the current Regulatory Process. The current process which heavily relies on MRIP estimates is highly mistrusted and widely criticized. I have distilled the many opinions I have heard in the past three years to one High Level Theme. Recreational Anglers are asking for Summer Flounder, Scup, Black Sea Bass and Bluefish to be managed for Sustained Abundance and not for Maximum Yield.

We do not support Option A (Status Quo) or Option B (almost Status Quo).

This approach has resulted in the Angler Angst noted above. We do support Options C, D and E. It is very difficult to evaluate these three specifically, but the most positive common theme is that they rely much less on just the MRIP Estimates. From the feedback that I have received, here is how I would grade the three remaining options.

#1 Option C

#2 Option E

#3 Option D

Completion of the modeling and impact estimates of these options are critical in order for all stakeholders to decide on which of these options to support. We hope that Fisheries Managers make the most conservative decisions to implement Maximum Sustainable Abundance of those Fisheries.

Thanks in advance for the opportunity to share these comments and for taking on the task of creating the next Framework for managing these Fisheries.

Kevin McMenamin

President – Annapolis Anglers Club

745 Rolling View Drive Annapolis MD 21409 kevin@annapolisanglersclub.com

(410) 340-5030 Mobile

From: Capt D [mailto:captdes@gmail.com]

Sent: Thursday, April 21, 2022 8:31 PM

To: Comments <comments@asmfc.org>

Subject: [External] Harvest control Rule

To whom it may concern,

In regards to the proposed Harvest Control Rule, I currently support alternative B as an interim step until measures for the bins described in C/D/E is fully described. B does rely on stock status for highly abundant stocks to prevent more restrictive measures based on MRIP.

Respectfully submitted,

Captain Desmond OSullivan

Owner, Celtic Quest Fishing Fleet.

--

Captain Desmond O'Sullivan

From: flukeman@aol.com <flukeman@aol.com>

Sent: Tuesday, April 19, 2022 3:28 PM

To: Beaty, Julia <jbeaty@mafmc.org>

Subject: Fwd: Recreational Harvest Control Rule resources and public hearings

Julia,

It would be more visual and easier to understand, if you could apply, each year, the decisions as they are in Chart 3 of the guide to the past history, especially summer flounder. If I remember correctly, we started with 10 fish at 11 inches. Also please indicate the liberalization that could have occurred in that past timeframe.

Visually the chart is very negative. A recreational fisherman will see little hope (green) for the future. Yellow for caution, brown for worse than cautionary, and red for your done.

I still do not see where we are going to address the issues of discard mortality and harvesting of breeding females disproportionally to the population.

I have a problem with management resources not focusing on solving the problems but addressing minutiae. MANAGEMENT SHOULD REVIEW THEIR RESOURCES CONSUMED AND APPLY THE PARETO PRINCIPLE AND FOCUS ON CRITICAL FEW. ALOT OF PROBLEMS ARE SOLVED BY CREATING A LARGER PIE, FOR ALL TO SHARE.

Celebrating 25 years of negative progress.

Carl Benson

From: Capt. TJ Karbowski [mailto:tedkarbowski@yahoo.com]

Sent: Thursday, April 21, 2022 7:42 AM

To: Comments <comments@asmfc.org>

Cc: Justin Davis <justin.davis@ct.gov>

Subject: [External] Comments: Harvest Control Rule

The Harvest Control Rule will be a welcome relief to all who make their living on the water and rely on realistic and common sense regulations. MRIP (specifically “new” MRIP) has turned the lives of for-hire business owners upside down during our “off seasons”. We have been afraid to invest into our own businesses due to fear of not knowing if we would even have a business to return to just 6 short months away.

In short, since the start “new MRIP” our off-seasons have turned into living soap operas filled with drama, public meetings, zoom meetings, countless phone calls and emails, all the while causing extreme financial sacrifices to both our businesses and families. It is inconceivable to just walk away from a thriving business you have spent your entire life building knowing it is just a broken Government math problem that will make or break your entire career.

MRIP uses “weighting” and “bell curves”, both by their own admission are subjective, made up numbers that are as much as 90% off of the number they started from. Scup and sea bass stocks are at least double of target levels, yet due to ridiculous harvest numbers produced by MRIP we are under constant threat of being forced out of business.

I plead you to move forward with the Harvest Control Rule immediately.

Thank you,

Capt. TJ Karbowski

Rock & Roll Charters

Clinton, CT

203.314.3765

https://rockandrollcharters.com/

From: Burl Self [mailto:b_e_self@yahoo.com]

Sent: Wednesday, April 20, 2022 4:43 PM

To: Comments <comments@asmfc.org>

Subject: [External] harvest control rules

prioritize sports fishery on all species over commercial fishing.

Thanks

Best

Burl Self

Va Beach Va 703 201 9191

From: Eric Burnley [mailto:eburnle@aol.com]

Sent: Tuesday, April 19, 2022 4:09 PM

To: Comments <comments@asmfc.org>

Cc: JOHN CLARK <john.clark@delaware.gov>; Roy Miller <fishmaster70@comcast.net>

Subject: [External] Harvest Control Rule

My thoughts on the suggested harvest control rule for recreational fishing. Eric Burnley

Option A; This would not help the stock or the fisherman. We need to examine the various indicators and make an educated decision.

Option B; Estimated harvest is like betting on a horse race.

Option C; This also contains estimated harvest along with three reasonably solid data numbers.

Option D; Here we have the simplest equation. Stock size verses spawning stock biomass.

Option E: Stock size and trend in stock size. This option depends less on recreational harvest and I personally like that.

Right now we de[end too much on MRIP numbers and they are bad data. Any option that depends less on them has got to be better than what we have now.

Eric Burnley

From: Brendan O'Neil [mailto:boneil202@gmail.com]

Sent: Monday, April 18, 2022 8:54 PM

To: Comments <comments@asmfc.org>

Subject: [External] Harvest Control Rule

To who it may concern:

As a concerned angler who values catching summer flounder, scup, black sea bass and bluefish, I support using additional information besides recreational harvest data to establish bag, size and seasons that better reflect the status of the resource. Therefore, I do not support status quo and urge managers to implement alternatives that use more than just recreational harvest data for determining measures. However, choosing a specific alternative is difficult without knowing the outcomes of options C, D & E in terms of measures. Option B is better than status quo and I support getting the opportunity to re-evaluate the other options (C, D and E) once measures or harvest levels for those alternatives are known.

Thank you for the opportunity to comment on this important issue.

Regards,

Brendan O'Neil

Alexandria, VA

From: Ron Klasmeyer [mailto:ronklasmeyer3@gmail.com]

Sent: Monday, April 18, 2022 10:51 AM

To: Comments <comments@asmfc.org>

Subject: [External] Harvest Control Rule

Mr. Dustin Colson Leaning,

For public comment:

It appears these rules will once again target recreational fishing which does not, according to the science, appear to be the problem. The data from Woods Hole which is referenced in the proposed rule shows that the commercial landings are almost double the recreational landings. The discards alone for commercial fishing is almost a quarter of all the recreational landings. If you were to follow the science, the rules would be targeted at the commercial fishing industry. While I understand the need to bring the regional recreational fishing more into alignment, get away from what may appear as arbitrary creel limits and size limits, the science does not point to recreational fishing as impacting the black bass or summer flounder populations.

Respectfully,

Ron Klasmeyer

Leonardtown, Maryland

From: william martin [mailto:williamhmartin341@gmail.com]

Sent: Friday, April 15, 2022 5:34 PM

To: Comments <comments@asmfc.org>

Subject: [External] Harvest Control Rule

I strongly favor the updated harvest control rule favored by CCA

William H. Martin, Ph.D.

Towson MD

From: Chuck Wyatt [mailto:cwyatt650@aol.com]

Sent: Thursday, April 14, 2022 5:21 PM

To: Comments <comments@asmfc.org>

Subject: [External] Harvest Control Rule

As a concerned angler, I support Option B at this time. I do not support status quo and urge managers to implement alternatives that use more than just recreational harvest data for determining measures. However, choosing a specific alternative is difficult without knowing the outcomes of options C, D & E in terms of measures. Option B is better than status quo and I support getting the opportunity to re-evaluate the other options (C, D and E) once measures or harvest levels for those alternatives are known. Thank you for the opportunity to comment on this important issue.

From: Neil [mailto:neil@lauraleecaptree.com]

Sent: Tuesday, April 12, 2022 9:27 AM

To: Comments <comments@asmfc.org>

Cc: Paul Risi <pjr587@aol.com>; captaindevito@gmail.com; ndelanoy@aol.com

Subject: [External] Harvest control rule

My name is Neil Delanoy, I am commenting on behalf of the Captree Boatmen's Association, New York State's largest for-hire fleet. We take over 300,000 anglers out every year, fishing the waters of Great South Bay and the Atlantic Ocean. I STRONGLY SUPPORT OPTION B at this time. I feel it considers the three most important factors, MRIP, RHL and stock status in formulating management measures.

Respectfully Submitted,

Neil Delanoy

Executive Director

Captree Boatmen's Association

From: Ken & Barbara [mailto:brooklyngirl10@optonline.net]

Sent: Sunday, April 10, 2022 4:32 PM

To: Comments <comments@asmfc.org>

Subject: [External] Harvest Control Rule

To whom it may concern,

I would like to express my support for option B. Including stock assessments with harvest data makes sense and could smooth out some of the annual irregularities in the harvest data, especially when the stock is in

overall good shape. I am hopeful that there could then be more consistency in regulations from year to year to help in planning and advertising for our business.

Thank you,

Capt. Ken Holmes

Vessel Brooklyn Girl, Orient Pt, NY

From: Patrick Gillen [mailto:patrickg@optonline.net]

Sent: Sunday, April 10, 2022 10:53 AM

To: Comments <comments@asmfc.org>

Subject: [External] Harvest Control Rule

I currently support alternative B as an interim step until measures for the bins described in C/D/E is fully described. B does rely on stock status for highly abundant stocks to prevent more restrictive measures based on MRIP.

Sincerely,

Patrick Gillen

Party/Charter boat Capt. Gillen from Captree, NY

From: Arthur James [mailto:amjretired@gmail.com]

Sent: Friday, April 8, 2022 11:13 AM

To: Comments <comments@asmfc.org>

Subject: [External] Harvest Control Rule

I fish for fluke in the bays off eastern Nassau County. My vote is for a slot limit of 17 or 18" to 24" with a bag limit of three. No one needs to bring home more than three fluke. No one. I disagree with some findings that fluke are back in big numbers. (I have been fishing the bays and inlets since the mid 1970s.

Arthur James

26 Joludow Drive Massapequa Park, NY 11762 516 650-9916

From: Don Pirro [mailto:dpirro1@gmail.com]

Sent: Thursday, April 7, 2022 2:12 PM

To: Comments <comments@asmfc.org>

Subject: [External] Harvest Control Rule

Dear Dustin and ASMFC,

Thank you for your efforts to improve the management of the precious resource of summer flounder, sea bass, bluefish, and scup. I am a long time avid angler who lives in Virginia and regularly fishes for these species from Virginia up through Massachusets. I am a member of Coastal Conservation Association in VA and religiously practice conservation. I am also a scientist and consider myself to be an informed and involved member of society when it comes to fisheries management having also participated in the Marine Resource Education Program sponsored by the Gulf of Maine Research Institute. Here are my desired options to the Harvest Control Rule for these species:

As a concerned angler who values catching summer flounder, scup, black sea bass and bluefish, I support using additional information besides recreational harvest data to establish bag size and seasons that better reflect the status of the resource. Therefore, I do not support the status quo and urge managers to implement alternatives that use more than just recreational harvest data for determining measures. The intent of including other factors (as identified in Options C, D, E) like fishing mortality, biomass level and recruitment provide a more holistic evaluation of the status of the fishery so that regulations can better align with stock condition instead of just being reactive to the uncertainty and variability of MRIP which many have lost faith in. However, choosing a specific alternative based on additional science and data points is impossible without knowing the outcomes of options C, D & E in terms of measures and seeing examples to fully understand the impact. At this time I can only support Option B (which is better than status quo) but I do support having the opportunity to re-evaluate the other options (C, D and E) at some future time once measures or harvest levels for those alternatives are known.

Thank you for the opportunity to comment on this important issue that impacts so many.

Yours Truly,

Don Pirro

Centreville, VA

From: Chris Dollar [mailto:cdollarchesapeake@gmail.com]

Sent: Thursday, April 7, 2022 10:50 AM

To: Comments <comments@asmfc.org>

Cc: CAPT. CHRIS DOLLAR <cdollarchesapeake@gmail.com>

Subject: [External] Harvest Control Rule

Good morning,

I am a professional fishing outfitter, small business owner, and ardent marine fisheries conservationist. For the past 27 years I have made my livelihood from the Chesapeake's marine and other natural resources. Having experienced the "yo-yoing" of fishery stocks and management decisions, I firmly believe it is imperative that we move with deliberate pace toward a new 21st century paradigm with regard to fisheries management. To me that means that the ASMFC, MAFMC, state and federal resource agencies must take decisive action to reverse species' decline and manage game fish and forage primarily for abundance rather than maximum harvest.

With regard to the draft Recreational Harvest Control Rule framework/addenda being proposed for summer flounder, scup, black sea bass and bluefish, I support using additional information besides recreational harvest data to establish bag, size, and seasons that better reflect the status of the resource. That also means I am opposed to the status quo. I urge managers to implement alternatives that use more than just recreational harvest data for determining measures.

That said, picking a specific alternative is difficult without knowing the outcomes of options C, D and E in terms of measures.

Option B is better than status quo and I support getting the opportunity to re-evaluate the other options (C, D and E) once measures or harvest levels for those alternatives are known.

Thank you for the opportunity to comment on this important issue.

Capt. Chris D. Dollar

"Stay Healthy…Go Fishing!"

Outdoor Communications & Fishing Outfitter

(410) 991-8468

Tacklecove.com

From: Bland [mailto:blandmail@comcast.net]

Sent: Monday, April 4, 2022 2:52 AM

To: Comments <comments@asmfc.org>

Cc: Joe Cimino <joseph.cimino@dep.nj.gov>; TOM FOTE <tfote@jcaa.org>; HEATHER CORBETT <heather.corbett@dep.nj.gov>; Peter J. Clarke <peter.clarke@dep.nj.gov>; Peter Hughes <phughes@atlanticcapes.com>; captadam@karenannii.com

Subject: [External] Harvest Control Rule

I am a NJ recreational fisherman who values catching summer flounder, scup, black sea bass and bluefish, I support using additional information besides recreational harvest data to establish bag, size and seasons that better reflect the status of the resource.

Therefore, I do not support status quo and urge managers to implement alternatives that use more than just recreational harvest data for determining measures.

However, choosing a specific alternative is difficult without knowing the outcomes of options C, D and E in terms of measures.

Option B is better than status quo and I support getting the opportunity to re-evaluate the other options (C, D and E) once measures or harvest levels for those alternatives are known.

Thank you for the opportunity to comment on this important issue.

Craig A. McIlrath

38 Mill Park Lane

Marlton, NJ 08053

blandmail@comcast.net

856-905-1711

From: teedle dowe [mailto:myfeb28@yahoo.com]

Sent: Sunday, April 3, 2022 3:37 PM

To: Comments <comments@asmfc.org>

Subject: [External] harvest control rule

Sea bass, not sure where your data on sea bass comes from. But I believe trying to control mother nature in anyway is not good. Years ago a moratorium was placed on stripe bass and around the same time weakfish numbers fell beyond belief ! While no one could catch the stripers , they where feasting on

the weakies my belief.

Back to the sea bass , they eat most everything that swims, crab, squid, porgies, sea bass and lots of other bait fish. What will be left for flounder ,tautog and other fish to eat, very little. My point, trying to control this eating machine will hurt others in many many ways.

My concern and regards,

Ted

From: brimoroz [mailto:brimoroz@protonmail.com]

Sent: Monday, March 28, 2022 7:50 PM

To: Comments <comments@asmfc.org>

Subject: [External] Harvest Control Rule

Hi,

I had a comment regarding the fisheries models under development that I felt wasn't appropriate for the webinar given then audience. There needs to be a bit more effort to help the public in these hearings understand the basics of how these models work (weighting, controlling uncertainties, flexibility, pros/cons e.g., future projections and/or sensitivity analysis etc...) Presenting solutions that depend on sophisticated models is useless without explaining the pros and cons of a model to folks who have little to no understanding of models or modeling. Many of them will poo-poo the idea of using a model-based approach because they don't understand it. I got the impression that folks in the audience think they can just plug in some numbers to these models/algorithms and then make their choice on whether they support the approach based on if they like the outcome or not--that is not how a model is used.

Thank you for your time,

Brian

From: Wayne.Thomas [mailto:Wayne.Thomas@kiewit.com]

Sent: Monday, March 28, 2022 7:46 PM

To: Comments <comments@asmfc.org>

Cc: Wayne.Thomas <Wayne.Thomas@kiewit.com>

Subject: [External] Harvest Control Rule

Dustin,

My comment or question would be as to the sensitivities in the models for adjustments to the legal harvest size limits… and would reducing the size of the harvest limit reduce catch and release mortality, save the bigger breeder fish, and actually help increase the fish populations.

I.e,: What happens is the average father-son team go out fishing in the morning and catch a number of fish.. say summer flounder/fluke… that are just below the legal keeper length… they continue to fish for their keeper and continue to catch and release fish.. which some die upon release. Wouldn't the fish populations be better off if that 16.25" first flounder was their keeper; they are happy anglers and stopped returning "shorts" back into the waters only to have them die. The same thing happens with the 28" striped bass harvest limit and their catch-release mortality rates..

Again, the positive residual effect would be more of the larger fish which are better breeders would remain and also help support the population.

I know it seems counter-intuitive to lower the harvest size limits but in reality it's a positive move. Less fish (not only by number but also by weight/pound) would be brought to shore and those remaining would be the bigger/better breeders.

Thanks for tonight's presentation and consideration… and your efforts in this important topic.

Wayne

Wayne D. Thomas, PE

Vice President, Strathmere Nj Fishing & Environmental Association

1-201-832-3351

From: Eric Packard [mailto:ericp669@gmail.com]

Sent: Friday, March 25, 2022 6:50 AM

To: Comments <comments@asmfc.org>

Subject: [External] Harvest Control Rule

As an avid angler who values catching summer flounder, scup, black sea bass and bluefish, I support using additional information besides recreational harvest data to establish bag, size and seasons that better reflect the status of the resource.

Therefore, I do not support status quo and urge managers to implement alternatives that use more than just recreational harvest data for determining measures.

However, choosing a specific alternative is difficult without knowing the outcomes of options C, D and E in terms of measures.

Option B is better than status quo and I support getting the opportunity to re-evaluate the other options (C, D and E) once measures or harvest levels for those alternatives are known.

Thank you for the opportunity to comment on this important issue.

Eric Packard

Artist (I fish sometimes, too)

From: Michael Shepherd [mailto:sheponfishing@yahoo.com]

Sent: Wednesday, March 16, 2022 4:52 PM

To: Comments <comments@asmfc.org>

Subject: [External] Harvest control rule

I am a recreational fisher in South Jersey and I appreciate the opportunity to emphasize the need to change the thinking concerning summer flounder regulations. I join the critics who have shown that current regulations requiring the harvest of the breeding females is a major factor in the decline of summer flounder.

We need be allowed slot fish inside the 17-18 minimums.

Mike Shepherd

609-350-0388

AMERICAN
SALTWATER GUIDES ASSOCIATION
BETTER BUSINESS THROUGH CONSERVATION

April 22, 2022

Dustin Colson Leaning
FMP Coordinator
Atlantic States Marine Fisheries Commission
1050 North Highland Street
Suite 200
Arlington, VA 22201

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

Dear Mr. Colson Leaning and Ms. Beaty:

Thank you for the opportunity to comment on the Harvest Control Rule (HCR) Framework/Addenda, a joint action that is a part of the Mid-Atlantic Fishery Management Council's (Council) and the Atlantic States Marine Fisheries Commission's (Commission) Recreational Reform Initiative. The American Saltwater Guides Association (ASGA) represents conservation-minded fishing guides, charter boat captains, small fishing-related businesses, and anglers, many of whom participate in fisheries impacted by this action. We have followed the development of this initiative for more than a year, recognizing the challenges presented by the current approach to managing recreational fisheries for several species jointly managed by the Council and Commission. While we commend the Council and Commission for their progress to date and do have feedback on specific aspects of the draft document, we continue to be concerned with the complexity of the alternatives provided for public feedback, an issue further exacerbated by the lack of Council Scientific and Statistical Committee (SSC) review prior to the solicitation of public comments.

While we appreciate the urgency of the task at hand, we are cautious of hastily implementing an untested management approach for four species without all of the necessary information and resources to avoid another challenging specifications cycle—all the while potentially increasing the risks of overfishing. Additionally, the larger process surrounding this effort continues to cause concern. The Commission is soliciting public comment while key aspects of this highly

complex document remain undeveloped—including the "critical"[1] Recreational Economic Model and the Recreational Fleet Dynamics Model[2]—and while the SSC is in the process of developing a report on the risks and uncertainties associated with the HCR approaches.[3] Asking the public to comment on these options without an understanding of the relative risks and benefits of each HCR approach—or the potential concrete measures that could result—limits the ability to provide constructive comment. Moreover, this process could potentially (further) undermine public faith in the fishery management process should a preferred alternative lead to an unanticipated and undesirable on-the-water regulatory outcome.

Until the SSC releases its report, we are not in a position to comment on a preferred alternative for Section 3.1 of the Framework/Addenda, Management Options to Set Recreational Management Measures. We do plan on submitting a more detailed public comment in the subsequent SSC HCR Report public comment period, which will be guided by our desire for the long-term sustainability of these stocks while also acknowledging the challenging reality that the black sea bass and scup stock biomasses are at 200 percent of the target, yet sizeable reductions continue to be required and implemented.[4] We hope this effort can find the correct balance for managing these healthy stocks within the confines of the Magnuson-Stevens Act (i.e., holding sectors accountable to science-based limits).

For Section 3.2, Target Measure for Setting Measures, ASGA recommends Option B, Annual Catch Limit. Setting measures to achieve a level of total dead catch (harvest and discards) would be an improvement for management and inject additional considerations into the measure-setting process. For example, accounting for discards would possibly encourage managers to make more explicit optimum yield considerations within a fishery. Option B does, however, contain a concerning sentence that we believe deserves additional clarification: "For this reason, the target level of catch for each bin may not always be equivalent to the recreational ACL under the no action alternative as a range of ACLs could fall under the same bin."[5] We understand that by design three of these HCR approaches will have predetermined measures for a range of stock conditions; therefore, each bin will be expected to produce a range of catch. However, additional information and specific guidelines are necessary regarding the intention to adhere to the Recreational ACL and set a range of catch for each bin that will not lead to overfishing.

---

[1] Mid-Atlantic Fishery Management Council. Overview of work, major accomplishments, and timeline recommendations. October 1, 2021. https://static1.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/616712674e13667ceb57b591/1634145031712/

[2] Mid-Atlantic Fishery Management Council. Recreational Harvest Control Rule Framework/Addenda. January 26, 2022. https://static1.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/61f44ea1cbe85135c3b669cc/1643400867886/Tab04_Rec-HCR-FW_2022-02.pdf

[3] Mid-Atlantic Fishery Management Council. February Meeting Motions. February 8-9, 2022. https://static1.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/620569fcbaa00808ea528741/1644521980583/2022-02_MAFMC-Motions.pdf

[4] Atlantic States Marine Fisheries Commission. Draft Addendum XXXIV To The Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan and Addendum II to the Bluefish Fishery Management Plan for Public Comment. February 2022. http://www.asmfc.org/files/PublicInput/HCR_DraftAddenda_PublicComment_March2022.pdf

[5] Ibid.

For Section 3.3, Conservation Equivalency (CE), we support Option B, Regional Conservation Equivalency. On the one hand, given that the HCR is an untested approach to managing recreational fisheries, we have significant concerns about applying CE at all given the additional uncertainty that it could bring to bear on management outcomes. On the other hand, we are cognizant of how diverse these fisheries are across their geographic ranges and understand that regulations for one region may not be effective or appropriate in another. Therefore, we support the regional use of conservation equivalency. One potential benefit for employing a regional approach for CE would be reduced staff workload. This possible extra bandwidth will be important to devoting all the necessary resources towards potentially implementing one of these HCR approaches.

We look forward to providing additional comments following our review of the SSC's findings, and appreciate your consideration of our views at this time.

Sincerely,

Will Poston
Policy Associate
American Saltwater Guides Association
will@saltwaterguidesassociation.org
(202) 577-8990

Willy Goldsmith, Ph.D.
Executive Director
American Saltwater Guides Association
willy@saltwaterguidesassociation.org
(617) 763-3340

New York Fishing Tackle Trade Association
P.O. Box 3210
Patchogue, NY 11772
nyftta@gmail.com

April 22, 2022

Dustin Colson Leaning, FMP Coordinator
Atlantic States Marine Fisheries Commission
1050 North Highland Street, Suite 200A-N
Arlington, VA 22201
RE: Public Comments for Harvest Control Rule

The New York Fishing Tackle Trade Association (NYFTTA) represents both the retail and wholesale bait and tackle dealers in the New York Marine district. The livelihood of our members, our industry, depends upon healthy stocks of many species of fish. Our mission is not just to promote the sport of fishing, but also to do our part in conserving resources for the future. Conserving resources for the future is not just managing the fishery from a conservation or regulatory approach, but also accounting for the socioeconomic impact of such regulations and maintaining fair and equitable access.

For decades the recreational fishing community has abided by recreational measures that are put in place with the goal of restraining harvest within sustainable levels. Often times, these measures were restrictive, imposing economic hardship on the recreational industry. Yet, as a sustainable fishery is the ultimate goal for the future of the fishery and the recreational community, we did our part. Hardships have paid off and we have seen fisheries rebuild; fisheries no longer being overfished. In fact, some fisheries have been successful to the point that even under measures meant to control harvest, these fisheries are so abundant, that harvest goes over. And when these instances occur, even though we know recreational measures are not reflective of stock size, managers hands are tied with a plan that does not incorporate factors beyond harvest.

The options laid out in this draft addendum take a first step at incorporating other data with the RHL when setting recreational measures. These options have models that are still being developed and we have yet to see what they will look like. While we are in favor of incorporating other factors, such as the bio mass, not seeing the impact of the final models, makes it difficult to support a future course. That being said, NYFTTA reluctantly supports **Option B for the Percent Change Option**. This Option is a step in the direction of developing managing measures that more completely encompass the harvest of recreational fishing with the health of the stock. In the end, we need sustainable fisheries, and moving in this direction will allow the stakeholders to benefit when fisheries are healthy, as well as take more comprehensive action when fisheries are on the downturn.

However, supporting Option B is only supporting a concept. The devil is in the details of how this will be achieved, which is where the sub-options come into play. We **DO NOT support Sub Option B-2B**. This option has set percentages for both liberalization and reduction. This option poses the real possibility that a fishery could be at 99% of its target, but if "future 2-YR avg. RHL is less than the lower bound of the harvest estimate CI" a 40% reduction would be implemented. In this scenario, a mere 1% more in biomass would bring this reduction down to 20%. There is a huge difference in the economic impact a 20-point spread reduction would have to the recreational community and industry. In one of the recent public hearings, I overhead someone say that in the BSB fishery this year, the ".7%" of the 20.7% BSB fishery was trivial. I can understand that looking in from the outside, it could be perceived that that a couple of points is inconsequential, but this is far from true! To the industry, to the shop who as a seasonal business, and already has less than a half a year to make their livelihood, every day matters! Whether it is 1, 5, 10 or 15% more, it can make an enormous economic impact and help to find that balance where both the FISHERY and the INDUSTRY can sustain. Sub-

option B2-B has dangerous implications for the recreational industry. At this time, until these models are fully developed, we could only **lend support to Option B-1A**. Even in this sub-option we have concern, as it misses the mark when the biomass exceeds 150%. There should be a differential in the liberalization equation with an added benefit over that 150% mark. For the same reasons we disagree with a "set" percent in sub-option B-1B, we have reservations of the "set" percent of sub-option B-2A. We believe there needs to remain flexibility with smaller increments in the percentages of liberalizations/reductions.

While we support that we can do a better job setting recreational harvest measures by utilizing "innovative management tools" and additional factors beyond harvest, this is unchartered territory. We believe this should be a 2-year interim approach. The Harvest Control rule should sunset in two-years with the ability to revisit through public input if it was a success and whether it should continue, revert back to the current models or be replaced entirely with a new model.

In addition to being a representative of the NYFTTA, I also own Regal Marine Products, a wholesale bait and tackle distributor. Our customers, bait and tackle shops, range from NJ through Rhode Island. I am very in tune with the recreational industry and the economic impact that regulations have on not only each state, but the region as a whole. There is no doubt that changes in recreational measures have a direct economic correlation on the industry. When we look at recreational measures, they are there to support the recreational fishing community, to give access to the hundreds of thousands of fishermen who enjoy the sport of fishing. Please make no mistake that at the heart of that community lies an industry that supports them. We ask that you think about that balance, as the choices you make today, not only determine the sustainability of the fisheries, but us as an industry as well.

Respectfully Submitted by,

Melissa Dearborn

Melissa Dearborn
Vice President, NYFTTA
melissa@regalbait.com

Respectfully Submitted by,

Melissa

Melissa Dearborn
Owner, Regal Marine Products, Inc
melissa@regalbait.com

1075 Tooker Avenue
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April 20, 2022

Duston Colson Leaning, Fishery Management Plan Coordinator
Atlantic States Marine Fisheries Commission
1050 North Highland Street, Suite 200 A-N
Arlington, VA 22201

RE: Harvest Control Rule

Dear Mr. Leaning:

With respect to *Draft Addendum XXXIV to the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan and Addendum II to the Bluefish Fishery Management Plan* (the "Draft Addenda"), I support Option A, *status quo*.

My support for the no-action option does not necessarily reflect on the intrinsic merits of the various Harvest Control Rule approaches, but is instead based on the lack of information, critical to the Harvest Control Rule debate and to the implementation of any control rule that may be adopted, provided to members of the Interstate Fishery Management Program Policy Board (the "Policy Board"), the Summer Flounder, Scup, and Black Sea Bass Management Board (the "Management Board"), the Mid-Atlantic Fishery Management Council (the "Council"), and to stakeholders and members of the general public.

While the Draft Addenda go into great detail outlining how the various control rule options would calculate management measures, and provide some detail on how such options might impact anglers, they leave out the most important information of all: How each control rule option might affect the long-term management and long-term health of the relevant fish stocks.

Without such information, it is impossible to provide intelligent comment.

In a properly managed fishery, the primary goals of fishery managers, and so of fishery management measures, are to prevent overfishing and maintain spawning stock biomass at, or rebuild spawning stock biomass to, B_{msy}. The Draft Addenda provide no guidance on the likelihood of measures developed pursuant to any of the Harvest Control Rule options successfully meeting such goals, nor do they rank the options in terms of management effectiveness or relative risk to the managed resource. Those are egregious omissions.

Below, I address the concerns which led me to select Option A in more detail.

I

The need for the Harvest Control Rule has not been clearly established.

The Draft Addenda state that "The goal of the Draft Addenda and the Council's framework is to establish a process for setting recreational bag, size, and season limits for summer flounder, scup, black sea bass, and bluefish such that measures aim to prevent overfishing, are reflective of stock status, appropriately account for uncertainty in the recreational data, take into consideration angler preferences, and provide an appropriate level of stability and predictability in changes from year to year." Most of those goals can and are being achieved under the current management program.

Even such contentious issues as uncertainty in the recreational data can be addressed within the current management system, as demonstrated by the use of "Thompson Tau outlier analysis"[1] to address uncertainty in recreational black sea bass data when establishing 2022 management measures. Admittedly, such Thompson Tau analysis does not directly address the issues of management stability and predictability, although such issues are closely tied to the uncertainty in recreational data, so additional management tools are arguably needed.

However, it is not clear that the Harvest Control Rule is needed to address the uncertainty and stability issues.

The uncertainty inherent in the annual estimates of recreational catch, landings, and effort falls within the general category of "management uncertainty," as does angler behavior in response to management measures, weather conditions, other available fish stocks, and similar factors. Such management uncertainty certainly exists in each of the summer flounder, scup, black sea bass, and bluefish fisheries, yet the monitoring committees responsible for recommending annual management measures have consistently refused to acknowledge it, and instead set the management uncertainty value at zero, the one value that everyone knows is wrong.

By recognizing the existence of management uncertainty, and setting a recreational harvest target at an appropriate level below the recreational harvest limit, the Management Board and Council could create a buffer that would allow for management uncertainty, lead to more stable and predictable management measures, and significantly reduce incidents of "chasing the RHL," while remaining within the current management structure.

The Draft Addenda note that "many recreational stakeholders expressed frustration that the black sea bass measures did not seem reflective of stock status as they have generally been more restrictive in recent years compared to when the stock was under a rebuilding plan, despite the stock currently being more than twice the target level and highly available to anglers." There is no question that some stakeholders, particularly those connected to the recreational fishing industry, have expressed such

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[1] See Presentation to Atlantic States Marine Fisheries Commission Summer Flounder, Scup, and Black Sea Bass Management Board, ASMFC Winter Meeting, available at http://www.asmfc.org/files/Meetings/2022WinterMeeting/SFSBSB_BoardPresentations_Jan22.pdf

feelings. However, it then becomes necessary to ask whether a transient condition[2] in a single fish stock justifies overthrowing the current management system in favor of an untested Harvest Control Rule that will be used to manage all four recreational fisheries.

Nothing in the Draft Addenda suggest that such justification exists.

II
The Harvest Control Rule is being moved forward with undue haste.

The Harvest Control Rule discussion that took place at the Council's February 8, 2022 meeting made it clear that two statistical models deemed "critical for thorough analysis of the options," and which will "greatly improve the process for setting management measures under any of the options,"[3] will not be available until some time in 2023 (the exception is a single statistical model relating to the recreational summer flounder fishery, which is expected to be ready for use later in 2022).

Yet when questions arose at the February 8 meeting about the wisdom of moving forward without such supposedly "critical" models, Savannah Lewis, who then led the ASMFC's Plan Development Team, responded that "The word is 'critical," not 'required,'" a comment that should raise concerns, particularly when it was followed up with an admission that such models were indeed "critical," but that moving ahead was justified by "what happened over the last three months," a clear reference to the controversy over more restrictive black sea bass regulations. The fact that a state fishery manager sitting on the Policy Board later noted that "Nobody wants to go through the process [of setting black sea bass regulations] again this year," further raises concerns that a desire to avoid further controversy is outweighing the need to establish a proper, well-considered foundation for the Harvest Control Rule and for 2023 regulations.

Until Michelle Duval, a Council member from Pennsylvania, successfully put a motion on the table asking that the Council's Scientific and Statistical Committee analyze all of the Harvest Control Rule options under various scenarios, and determine their relative risk with respect to managing fish stocks at different levels of abundance, both the Policy Board and Council were preparing to vote on a Harvest

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[2] The most recent benchmark stock assessment, along with subsequent stock assessment updates, identified an exceptionally strong black sea bass year class produced in 2011 (recruited at age 1 in 2012), and a second smaller, but still unusually strong, year class in 2015 (recruited at age 1 in 2016), which made a significant contribution to the current black sea bass abundance. However, recruitment has since returned to more typical levels (with the exception of the smallest-in-the-time series 2017 year class), and spawning stock biomass, while still twice the target level, has been in decline. That sets the stage for one of two likely alternatives: Either the SSB will continue to decline toward (and hopefully not below) the target level in the face of average recruitment, or additional strong year classes will be produced that maintain SSB at or close to current levels, in which case biologists performing the stock assessment are likely to increase their estimates of black sea bass productivity and revise B_{msy} upward. In either case, the likelihood of SSB remaining at or near 200 percent of B_{msy} in the long term is probably low.

[3] Memorandum from Joint PDT/FMAT for Recreational Reform to Mid-Atlantic Fishery Council and ASMFC Policy Board, dated October 1, 2021, pp. 1-2, available at https://static1.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/616712674e13667ceb57b591/1634145031712/2021-10-21_Combined-Briefing-Materials.pdf

Control Rule in June 2022, without having even that basic information, which is, of course, also not available to stakeholders commenting on the Draft Addenda.

It is poor policy to move ahead with a new and untested management approach before all of the information and statistical models needed to properly evaluate and implement such approach are available.

III
Will the Harvest Control Rule increase uncertainty in the management process?

The Draft Addenda cited "uncertainty in the recreational fishery data" as one justification for adopting the Harvest Control Rule. What the Draft Addenda do not make clear is whether at least some of the Harvest Control Rule options would increase uncertainty in the management process.

The current management approach requires relatively few parameters. Managers be able to estimate both F_{msy} and the current spawning stock biomass to calculate the Overfishing Limit (which the Council's Scientific and Statical Committee will then reduce, to account for scientific uncertainty, to produce the Acceptable Biological Catch), and an estimate of the previous year's catch and landings, which is subject to some level of management uncertainty. The uncertainty associated with each parameter can negatively affect the effectiveness of the resulting management measures.

However, some of the Harvest Control Rule options rely on additional data. Option C, the "Fishery Score Approach," would incorporate an estimate of current biomass, an estimate of B_{msy}, an estimate of the current fishing mortality rate, an estimate of F_{msy}, an estimate of recruitment, as well as an estimate of recreational landings. The point estimate used for each of those parameters is surrounded by a confidence interval. So the important question to ask is whether, by basing management measures on so many different parameters, each of which is subject to some level of uncertainty, the Harvest Control Rule could introduce a significantly higher level of uncertainty, and thus of risk, into the management process.

The Draft Addenda do not answer that question, nor do they answer such question with respect to Option D, the "Biological Reference Point Approach," which is based on estimates of the current fishing mortality rate, F_{msy}, current biomass, B_{msy}, recruitment, recruitment trends, and recreational landings levels, or Option E, the "Biomass Based Matrix Approach," which requires estimates of current biomass, Bmsy, and biomass trends.

Without understanding how a Harvest Control Rule option increases uncertainty, and so possibly increases risk, in the management process, the suitability of such options cannot be properly evaluated.

IV

Does the Harvest Control Rule meet the minimum legal standards for fishery management measures?

The Magnuson-Stevens Fishery Conservation and Management Act[4] ("Magnuson-Stevens") establishes clear requirements for fishery management measures, many of which have been interpreted by the federal courts. While Magnuson-Stevens does not apply to the Atlantic States Marine Fisheries Commission ("ASMFC"), and the ASMFC's management actions are not subject to review pursuant to the federal Administrative Procedures Act,[5] such considerations are relevant to measures adopted by the Council and National Marine Fisheries Service ("NMFS").

It is not clear from the Draft Addenda, nor from private conversations that I have held with Council and NMFS staff, whether all of the Harvest Control Rule options would meet such legal standards. Two legal standards cause particular concern.

Magnuson-Stevens includes ten National Standards for Fishery Conservation and Management.[6] National Standard 1 states that "Conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery for the United States fishing industry."

That requirement has been interpreted by the federal courts to mean that any management measure must have at least a 50 percent probability of preventing overfishing to be legally acceptable. The court in *Natural Resources Defense Council v. Daley*,[7] a matter arising out of legally inadequate summer flounder management measures adopted by the Council, found that "at the very least, this means that 'to assure' the achievement of the target F, to 'prevent overfishing' and to 'be consistent with' the fishery management plan, the [total allowable landings] must have had at least a 50% chance of attaining [the target fishing mortality rate]."

Neither the Draft Addenda nor any comment that I have yet heard on the part of the Council or NMFS has provided clear assurance that management measures produced by each of the Harvest Control Rule options would meet that minimum legal standard.

Magnuson-Stevens also requires that regional fishery management councils "develop annual catch limits for each of its managed fisheries that may not exceed the fishing level recommendations of its scientific and statistical committee or the peer review process established [elsewhere in the statute]."[8]

While the Draft Addenda discuss how accountability measures might be applied to the various Harvest Control Rule options should recreational landings exceed such catch limits, nowhere do they state how management measures will be developed to prevent such catch limit to be exceeded in the first place. That causes particular concern with respect to Options C, D, and E, where management measures are

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[4] 16 U.S.C. 1801 *et seq*

[5] *New York v. Atlantic States Marine Fisheries Commission*, 609 F.3rd 524, (2nd Circuit, 2010)

[6] 16 U.S.C. 1851

[7] 209 F.3rd 747 (DC Circuit, 2000)

[8] 16 U.S.C. 1852(h)(6)

largely or completely divorced from the previous year's annual catch limit. It is difficult to believe that a court would be receptive to an argument that, while Magnuson-Stevens requires an annual catch limit to be established, it does not require a regional fishery management council to consider that catch limit when crafting management measures for the upcoming season.

The lack of assurances that management measures produced pursuant to any or all Harvest Control Rule options will both have a 50 percent probability of preventing overfishing and are likely to constrain recreational landings to the annual catch limit give rise to concerns that the Harvest Control Rule does not meet the minimum legal requirements established by Magnuson-Stevens.

V

The Policy Board, Management Board, and Council should phase in implementation of the Harvest Control Rule, testing it first on black sea bass.

While current management practices may not be perfect, they managed to rebuild the summer flounder, scup, and black sea bass stocks, which were once badly overfished. In the case of black sea bass and scup, spawning stock biomass was not merely rebuilt to the target levels, but to levels far above such targets. As noted in the first section of these comments, the few shortcomings of the current management approach can be remedied with relatively modest measures, without the need to radically change the management process.

That being the case, changes to the current management process should be done cautiously. It is difficult to understand why the Policy Board, Management Board, and Council are intent on radically altering the management paradigm for all four species at the same time, instead of engaging in a pilot program involving a single species, to determine whether the Harvest Control Rule works in practice, and not merely in theory.

That is particularly true because, even should the Harvest Control Rule fail to adequately constrain fishing mortality and maintain spawning stock biomass, there will likely be significant resistance, both from the angling industry and from Council and Policy Board members who have invested substantial effort and personal prestige in such Harvest Control Rule, to restoring the current approach to recreational fishery management.

Given that discontent over black sea bass management has provided much of the impetus for development of a Harvest Control Rule, it would make sense to limit initial implementation of the Harvest Control Rule, if implementation is to occur, to only that species. Spawning stock biomass is high enough that even if the management measures developed pursuant to any control rule fail to constrain recreational landings to sustainable levels, the black sea bass stock is likely to remain well above the biomass target until managers can address the issue.

If the Harvest Control Rule does not have an adverse impact on the black sea bass stock, its use could then be extended to summer flounder, scup and, once the stock is rebuilt, bluefish. But if the Harvest Control Rule fails to adequately constrain the recreational black sea bass harvest, managers will know

that more work must be done before it can be used to manage the scup and, more importantly, the summer flounder and bluefish stocks, which unlike black sea bass and scup, are already below their biomass targets.

VI
Summary

The Harvest Control Rule represents the most significant change to the management of bluefish and mid-Atlantic demersal species since the passage of the Sustainable Fisheries Act in 1996 and the 2000 court decision in *Natural Resources Defense Council v. Daley*. As such, it should not be adopted in haste, and certainly not until all of the information and statistical models needed to support the new management approach are in place.

Today, neither the models nor the information are available.

The Draft Addenda were released prematurely, out of an understandable desire to put the Harvest Control Rule in place for the 2023 season, whether it was fully ready or not. Such Draft Addenda thus lacked the information needed to make intelligent and informed choices with respect to the Harvest Control Rule options.

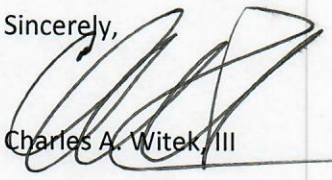
I support Option A, *status quo*, solely because, based on the information available, that is the only option that will clearly do no harm to the long-term health of mid-Atlantic fish stocks.

The haste with which the Draft Addenda were prepared and presented does no justice to the management process, the affected fish stocks, nor the Harvest Control Rule itself, which may well be the most appropriate approach to managing recreational fisheries in the mid-Atlantic. However, such appropriateness can't be determined given the information that is currently available.

I thus respectfully request that the implementation process be delayed until such information is available, at which time the Policy Board and Council can again seek comment, this time from a fully informed public, and determine whether the Harvest Control Rule is the right management tool for the species in question.

Thank you for considering my thoughts on this matter.

Sincerely,



Charles A. Witek, III

NEW JERSEY COUNCIL OF DIVERS AND CLUBS

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4/20/22

HARVEST CONTROL RULE FOR RECREATIONAL MANAGEMENT

DRAFT ADDENDUM XXXIV TO THE SUMMER FLOUNDER, SCUP AND BLACK SEA BASS MANAGEMENT PLAN & THE BLUEFISH MANAGEMENT PLAN FOR PUBLIC COMMENT

The NJ Council of Divers and Clubs is presently an organization of 14 sport diver clubs in New Jersey and nearby states. The following is testimony regarding the proposed recreational harvest control rules

The NJ Council of Divers and Clubs supports Option A No Action (Current Recreational Measures Setting Process). With the recreational fishery, many thousand of recreational fishermen are involved and the exact take cannot be determined because recreational fishermen do not report their catch to a central processing agency. I have never supported automatically doing something based on any formulae that does not allow fishery managers to consider the overall impact on the recreational fishery.

The NJ Council of Divers and Clubs believes that trying to define an exact procedure through Option B Percent Change Approach, Option C Fishery Score Approach, Option D Biological Reference Point Approach, and Option E Biomass Based Matrix Approach is not realistic because in most cases you will not have really good data on the recreational catch. The least harmful of the approaches is option B, except that 150% of the target stock seems very high and unrealistic to me.

The NJ Council of Divers and Clubs would support Conservation Equivalency Options to give states more flexibility for alternative measures.

Respectfully

jf2983182@msn.com

Jack Fullmer

Legislative Committee

The NJ Council of Diving Clubs recently reorganized and changed its name to the NJ Council of Divers and Clubs to try to attract more membership from dive shops, dive boats as well as individual divers.

RHODE ISLAND
SALTWATER
ANGLERS
Association

P.O. Box 299, Tiverton, Rhode Island 02878 401-826-2121 www.RISAA.org

April 22, 2021

Dustin Colson Leaning

Re: Harvest Control Rule

Dustin and Commission Members:

The Rhode Island Saltwater Anglers Association (RISAA) represents over 7500 saltwater anglers and 28 affiliate clubs in Rhode Island, Connecticut and Massachusetts. We have been following the discussions and developments related to "Recreational Reform" with much interest.

We have always based our positions on science based measures and continue to believe science must dictate management. RISAA also feels equally as strong that when the management tools clearly are failing then additional tools are needed to allow managers the ability to respond appropriately to changing fish stock status levels. In that line we have come to believe that the current recreational management tools need some form of improvement and therefore we are in favor of a change as proposed under the Harvest Control Rule. We are not in favor of Option A, Status Quo because we believe that it is important that managers have the ability to use important factors such as population status when establishing recreational management measures. We believe that Option B is a step in the right direction and would therefore be significantly better than Status Quo. Some of the other options may provide even better recreational management however since they were not presented in sufficient detail we are not sure what effect they may have on recreational management issues.

At the present time we would like to state for the record that we are opposed to Option A and would support Option B with further analysis of the other options.

Thank you,

Greg Vespe
Executive Director
Rhode Island Saltwater Anglers Association

39 Industrial Park Road, Unit C
Plymouth, MA 02360
www.stellwagenbank.org

April 20, 2022

Dustin Colson Leaning, FMP Coordinator
Atlantic States Marine Fisheries Commission
1050 North Highland Street
Suite 200
Arlington, Virginia 22201

RE: Harvest Control Rule

Dear Mr. Colson Leaning:

On behalf of the Stellwagen Bank Charter Boat Association (SBCBA) whose membership includes the for hire fleet, recreational anglers and commercial fisherman that fish the state and federal waters off the coast of Massachusetts, we offer the following comments to the Harvest Control Rule ("HCR"):

The SBCBA is pleased to see the proposed HCR alternatives that attempt to address the ongoing uncertainties and variability associated with MRIP data resulting in poor stock status as well as seasons and bag limits inconsistent with our observations on the water. The HCR alternatives attempt to provide other metrics less reliant on MRIP data to make fishery management decisions.

Section 3.1. Management Options to Set the Recreational Management Measures.

The SBCBA support Option B, the Percent Change Approach, as an interim approach until Options C, D and E can be developed further and scenario tested. Option B is the only option that has been tested by looking at what the management response would have been if Option B was implemented in previous years versus a fishery management action that occurred under the "no action alternative".

Once tested, Options C, D and E can be detailed to the recreational fishing community in order for the public to understand the differences in setting recreational measures across the alternatives that provides the public the opportunity to evaluate the trade-offs of each approach. Therefore, the SBCBA supports the opportunity to reconsider Options C, D and E once

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the outcomes are known and scenario testing has been completed to demonstrate the performance of these alternatives.

Section 3.3. Conservation Equivalency Options
The SBCBA supports Option A that does not require conservation equivalency but allows use of such if necessary providing flexibility that may alleviate challenges associated with implementing a new HCR approach. The use of a conservation equivalency process provides an approach that works across a broad geographic range of fish availability and angler preferences.

Section 3.4 Accountability Measures Comparisons
The SBCBA **s**upport Option B which would utilize fishing mortality relative to the fishing mortality threshold in response to the application of accountability measures. The document states that the most recent fishing mortality estimate considers more recent information than the information used to set a previous year's ACL. Therefore, Option B clearly represents the use of best available science which is consistent with the Magnusson Stevens Act, National Standard 2.

If you have any questions or comments please email or give us a call.

Very truly yours,

Capt. Mike Pierdinock
Capt. Mike Pierdinock
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sbcbamp@gmail.com

Capt. Timothy Brady
Capt. Timothy Brady
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Jersey Coast Anglers Association
Working for Marine Recreational Anglers
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TEL.: 732-506-6565 - FAX: 732-506-6975

4/21/22

ASMFC/MAFMC

The Jersey Coast Anglers Association represents approximately 75 fishing clubs throughout our state. We strongly support making a change in the way our summer flounder, scup, black sea bass and bluefish are managed. We believe that very few, if any, of our fisheries managers believe that the MRIP numbers are accurate and should be the only data used in determining quotas, seasons, bag limits and size limits. Until this point, their hands have been tied but now there is an opportunity for change that we hope will result in better fisheries management and fairer regulations for our recreational fishermen

Of the options available to consider, we strongly oppose option A which is status quo. We believe any of the other options would be better than that. Options C, D, and E are not fully developed so we can not support them at this time. Therefore, we urge you to implement Option B at this time and consider the other options once they are fully developed.

Respectfully submitted,

Mark Taylor, JCAA President

MARINE TRADES
ASSOCIATION OF NEW JERSEY

April 18, 2022

Dustin Colson Leaning
FMP Coordinator
1050 N. Highland St.
Suite 200 A-N
Arlington, Virginia, 22201

Dear Mr. Leaning,

The following comments are being submitted on behalf of the Marine Trades Association of New Jersey (MTA/NJ) regarding the Harvest Control Rule for Bluefish, Summer Flounder, Scup and Black Sea Bass. The MTA/NJ is in support of Option B in section 3.1 of the Recreational Harvest Control Rule Draft Addenda/Framework.

The MTA/NJ, established in 1972, is a non-profit trade organization comprised of over 300 marine-related businesses dedicated to advancing, promoting, and protecting the marine industry and waterways in the State of New Jersey. We represent hundreds of recreational businesses both large and small located in every county of the state.

It is largely agreed that the present recreational fishery management system used by the ASMFC and MAFMC has failed. Form over substance has dictated recreational management by the ASMFC and MAFMC for years to the detriment of the fishing community. Common sense and reality (such as stock status) are less significant than formulaic and non-adaptive management. Add to that an MRIP program that is distrusted by most of the recreational (and commercial) fishing community, and a reality-based component is needed. Option B offers an opportunity to inject the reality of stock status into the system to help level the uneven management road on which our recreational community, particularly our businesses, have suffered. Option A assures the same type of failure we have seen for years. The other options are too uncertain. Please consider adopting Option B.

Thank you for your consideration. If you have any questions, feel free to contact me at 732-292-1051 or mdanko@mtanj.org.

Sincerely,

Melissa Danko

Melissa Danko
Executive Director
Marine Trades Association of New Jersey

April 15, 2022

Dustin Colson Leaning, FMP Coordinator
Atlantic States Marine Fisheries Commission
1050 North Highland Street
Suite 200
Arlington, VA 22201

Dear Mr. Colson Leaning,

Thank you for the opportunity to provide input on the Harvest Control Rule Draft Addenda/Framework for summer flounder, scup, black sea bass and bluefish. Our organizations represent the recreational fishing and boating industry and our nation's anglers, and we appreciate the continued efforts by the Atlantic States Marine Fisheries Commission (ASMFC) and the Mid Atlantic Fishery Management Council (MAFMC) to find solutions that are better suited for managing the recreational fishery.

The harvest control rule (HCR) alternatives aim to address numerous challenges currently facing recreational fishery management, including uncertainty in the MRIP data, the need to change measures (sometimes annually) based on those data, and recreational measures (bag, size and season) not reflecting stock status. Most recently, the 2022 fisheries specification process exemplified these challenges and demonstrates the need for alternative approaches to setting bag, size and season. As a result, we offer the following input on the HCR alternatives. While we believe several of the management alternatives presented hold tremendous potential for more efficiently managing both the recreational sector and our fisheries resources, we urge the ASMFC Policy Board and MAFMC to seriously consider which alternatives would be ready for implementation beginning in 2023.

Section 3.1 Management Options to Set the Recreational Management Measures.
We support Option B, the Percent Change Approach, as an interim approach until options C, D and E can be developed further to include the setting of measures within the bin(s) and backtesting.

Option B is currently the only option that has been backtested by looking at what the management responses would have been if option B was implemented in previous years versus management actions that occurred under the no action alternative. This performance testing is critical to understanding the rest of the HCR options, but the modeling approaches are not developed enough to complete that analysis. Additionally, we have consistently maintained the importance of putting alternatives C, D and E in terms that the recreational fishing community understands to illustrate the differences in setting the recreational measures across the alternatives and provide the opportunity to evaluate the trade-offs of each approach. However, to date, that has not been accomplished for options C, D and E.

Nonetheless, we strongly support the opportunity to reconsider options C, D and E once the outcomes are known and analyses have been completed to demonstrate the performance of each approach.

Section 3.2 Target Metric for Setting Measures
The document states that the options in section 3.2 do not apply because we selected Option B in section 3.1, however we thought it would be prudent to provide input on section 3.2

Primary: We support Option C, Fishing Mortality Target (F).
Secondary: We support Option B, Annual Catch Limit (ACL).

Selecting fishing mortality or ACL as the target for setting recreational measures incentivizes fishery managers to directly manage discards. Currently, when management measures are adjusted to achieve the RHL, the impacts on discards are poorly understood because of limited data on discarded fish. Setting measures on F or the ACL incentivizes fishery managers to collect length frequency data on discarded fish through both improvements to the MRIP sampling design and state volunteer angler surveys. The discard length frequency data is then used to better understand how changes to the management measures impact the number of discards.

Section 3.3 Conservation Equivalency Options
We support Option A that allows the continued use of conservation equivalency. Option A provides flexibility that may alleviate challenges associated with implementing a new HCR approach. The conservation equivalency process exists because it is too challenging to establish one set of bag, size and season limits that work across a broad geographic range of fish availability and angler preferences. Option A does not require conservation equivalency but allows it if needed.

Section 3.4 Accountability Measures Comparisons
We support Option B which would utilize fishing mortality relative to the fishing mortality threshold in response to the application of accountability measures. The document states that the most recent fishing mortality estimate considers more recent information than the information used to set a previous year's ACL. Therefore, option B clearly represents the use of best available science which is timelier and more consistent with National Standard 2.[1]

Thank you for considering our input. We appreciate the ASMFC Policy Board and Council for their continued support of the recreational management reform initiative and the Fishery Management Action Team for their work on the harvest control rule addenda/framework.

Sincerely,

Michael Waine
Atlantic Fisheries Policy Director
American Sportfishing Association

Jeff Angers
President
Center for Sportfishing Policy

Ted Venker
Conservation Director
Coastal Conservation Association

Chris Horton
Senior Director of Fisheries Policy
Congressional Sportsmen's Foundation

Lorna O'Hara
Interim Executive Director
Recreational Fishing Alliance

Clay Crabtree
Federal Government Relations Director
National Marine Manufacturers Association

[1] https://www.fisheries.noaa.gov/national/laws-and-policies/national-standard-2-related-resources

Conservation Law Foundation ● Natural Resources Defense Council ● Ocean Conservancy

April 22, 2022

Dustin Colson Leaning
FMP Coordinator
Atlantic States Marine Fisheries Commission
1050 North Highland Street, Suite 200
Arlington, VA 22201

Julia Beaty
Fishery Management Specialist
Mid-Atlantic Fishery Management Council
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Dover, DE 19901

Re: Recreational Harvest Control Rule Framework/Addenda

Dear Mr. Colson Leaning and Ms. Beaty:

On behalf of the organizations below, we provide these comments on the Mid-Atlantic Fishery Management Council's (Council) and Atlantic States Marine Fisheries Commission's (Commission) Recreational Harvest Control Rule (HCR) Framework/Addenda for the summer flounder, scup, black sea bass, and bluefish recreational fisheries.[1] Our organizations support strong implementation of the core conservation requirements of the Magnuson-Stevens Fishery Conservation and Management Act, including requirements to prevent overfishing with annual catch limits and accountability measures.

Recognizing the unique management challenges presented by these recreationally important species, and the importance of continued discussions on how to improve recreational data collection, stock assessments, and the annual process for setting recreational management measures (e.g., season lengths, bag and size limits) we appreciate that the HCR Framework/Addenda is in some respects attempting to address these challenges and improve management outcomes. However, we have serious concerns that some of the management options presented could increase the risk of overfishing. There remains significant ambiguity regarding how the options would be implemented within the framework of ACLs and annual accountability as required by federal law.

Given that the HCR approach is a significant departure from current management for these important species, we think it appropriate to proceed with caution, rather than being driven by a goal of implementing changes in time for the 2023 fishing season. We strongly recommend that the Council and Commission pause further consideration of the Draft HCR Framework/Addenda pending the completion and full consideration of the Council's Scientific and Statistical Committee's (SSC) review of the potential effects of the five alternatives, and pending completion of the statistical models that will predict recreational harvest based on selected input controls, which at present are not anticipated to be available for use for most species until Fall 2022 or later. Prior to any action being taken, the Council and Commission must also be able to clarify how the option(s) comply with the controlling Magnuson-Stevens Act framework.

[1] Atlantic States Marine Fisheries Commission, Draft Addendum XXXIV to the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan and Addendum II to the Bluefish Fishery Management Plan for Public Comment, Harvest Control Rule for Recreational Management ("Harvest Control Rule Draft Framework/Addenda") (February 2022).

Furthermore, we are concerned that such a significant change to management is being pursued via a framework action by the Council, rather than through a full fishery management plan (FMP) amendment. As the Council notes, framework actions or adjustments can be made for "minor changes and modifications to existing measures,"[2] while "issues that require significant departures from previously contemplated measures or that are otherwise introducing new concepts may require an amendment of an FMP instead of a framework adjustment."[3] Given the scope of the changes proposed and the novelty of the underlying concepts, we recommend the Council use the more inclusive and thorough FMP amendment process to consider the changes proposed.

We provide initial thoughts on the HCR management options below, however, it is challenging without more information to fully assess the options against our primary concern of constraining recreational catch to annual catch limits and preventing overfishing. We anticipate that the further development of statistical models, as well as the review by SSC, will provide additional clarity regarding our concerns. We hope further public comment will be considered at that time and prior to any final action.

Controlling Magnuson-Stevens Act Requirements

Since its 2007 reauthorization, the Magnuson-Stevens Act (MSA) has required science-based annual catch limits (ACLs) as a means of ending and preventing overfishing.[4] Each Council is required to "develop annual catch limits for each of its managed fisheries" that may not exceed recommendations of its scientific and statistical committee or the established peer review process.[5] For each fishery management plan, the Council must "establish a mechanism for specifying annual catch limits in the plan (including a multiyear plan), implementing regulations, or annual specifications, at a level such that overfishing does not occur in the fishery, including measures to ensure accountability."[6] These conservation requirements are controlling over other considerations in federally managed fisheries, and management measures must have, at minimum, a 50% probability of preventing overfishing.[7] Further, in the case of an overfished stock, the MSA's rebuilding requirements dictate that a rebuilding allowable biological catch (ABC) and ACL must be set at a level that ends overfishing immediately[8] and reflect "the annual catch that is consistent with the schedule of fishing mortality rates . . . in the rebuilding plan."[9]

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[2] Mid-Atlantic Fishery Management Council, "Council Actions" at https://www.mafmc.org/council-actions

[3] Mid-Atlantic Fishery Management Council, Framework Actions Summary (May 2014), available at: https://static1.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/589e07cfdb29d65cd8f551bc/1486751696154/Frameworks.pdf

[4] *See* Senate Report 109-229 (April 4, 2006) at 21 (explaining the need for enhanced science-based management and accountability to curb continued overfishing under the Sustainable Fisheries Act of 1996 framework: "This provision is intended to provide a transparent accounting mechanism to help ensure that each fishery is in compliance with the overfishing and rebuilding requirements of the [MSA].").

[5] Magnuson-Stevens Fishery Management and Conservation Act (MSA) § 302(h)(6), 16 U.S.C. § 1852(h)(6)

[6] MSA § 303(a)(15); 16 U.S.C. § 1853(a)(15)

[7] *Natural Resources Defense Council v. Daley*, 209 F.3d 747, 753 (D.C. Cir. 2000) ([U]nder the Fishery Act, the Service must give priority to conservation measures" and "[i]t is only when two different plans achieve similar conservation measures that the Service takes into consideration adverse economic consequences."); National Standard 1 Guidelines, 50 C.F.R. § 600.310 (f)(2)(i).

[8] 16 U.S.C. § 1854(e)(3)(A).

[9] 50 CF.R. § 600.310(f)(3)(ii).

Effective implementation of accountability measures (AMs) on an annual basis is a critical counterpart to ACLs in preventing overfishing. Under the National Standard 1 Guidelines, the Council must determine as soon as possible after the fishing year if an ACL is exceeded. If an ACL is exceeded, the Council is required to implement AMs "as soon as possible," such as overage adjustments (i.e., paybacks) or other corrective measures to ensure catch is brought down below the ACL.[10] In the case of multi-year measures, plans "must include a mechanism for specifying ACLs for *each year* with appropriate AMs to prevent overfishing [emphasis added]."[11]

We note that recent amendments made to the MSA by the Modern Fish Act of 2018 clarified that Councils have authority to use certain fishery management measures, such as harvest control rules and fishing mortality targets, for recreational fisheries. The text of Section 102 and a statutory rule of construction within the Modern Fish Act made clear that such measures are only to be implemented "in addition to" annual catch limits, accountability measures, and the rebuilding requirements of the MSA.[12]

Proposed Harvest Control Rule Options

Should the Council and Commission decide to pursue any of the HCR options for the black sea bass, summer flounder, scup, and/or bluefish fisheries, we strongly recommend only pursuing HCR option(s) that can help improve and strengthen application of ACLs and AMs to the relevant fisheries. Options should be considered only if they can clearly show how the MSA's primary requirement to prevent overfishing will be achieved. As currently drafted, none of the Options B-E appear to have this as a goal or likely outcome, as they would decrease emphasis on whether recreational landings are kept at or below the recreational harvest limit (RHL) on an annual basis, which means they may be more at risk of exceeding the recreational ACL and risking stock status.[13] Prior to proceeding with such a drastic change to management, the Council and NMFS must ensure that the ACL and AM requirements of the law will be carried out. While the Framework/Addenda does recognize that the Council is bound by the

[10] *Id.* at § 600.310(g)(3).
[11] *Id.* at § 600.310(f)(4)(i), providing further that "[a] multiyear plan must provide that, if an ACL is exceeded for a year, then AMs are implemented for the next year consistent with paragraph (g)(3) of this section."
[12] The Modernizing Recreational Fisheries Act or "Modern Fish Act," Public Law 115-405 (2018), sec. 201, codified as 16 U.S.C. § 1852(h)(8). Section 103 of the Modern Fish Act also provided a rule of construction as follows: "Nothing in this Act shall be construed as modifying the requirements of sections 301(a), 302(h)(6), 303(a)(15), or 304(e) of the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1851(a), 1852(h)(6), 1853(a)(15), and 1854(e)), or the equal application of such requirements and other standards and requirements under the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1801 et seq.) to commercial, charter, and recreational fisheries, including each component of mixed-use fisheries."
[13] In addition to the NS1 guidelines, which describe the need for annual accountability to ACLs, recent analysis by the Gulf Fishery Management Council regarding accountability in potential carryover provisions may also be instructive. The Council's SSC considered simulations of carryovers and determined that pound-for-pound paybacks on an annual basis are key to ensuring the health of fish stocks: "Generally, so long as unharvested quota is carried over and overharvested fish are paid back pound for pound in the following fishing year, there are unlikely to be long-term negative effects on a species' rebuilding plan. However, if carryover is permitted for a species which also experiences quota overages, and those overages are not paid back, the spawning stock biomass (SSB) will deplete, regardless of whether the stock is in a rebuilding plan." Gulf Fishery Management Council, Carryover Provisions and Framework Modifications (Draft Generic Amendment) at 8-9 (June 2019), https://gulfcouncil.org/wp-content/uploads/E-6a-Draft-Generic-Amendment-for-Quota-Carryover-and-Framework-Modification.pdf.

requirements of the MSA, including requirements for ACLs, accountability measures, and prevention of overfishing,[14] as currently written, the Framework/Addenda document fails to show how the options presented will comply with this statutory mandate.

Under status quo management (Option A), each of the species being considered have both a commercial and a recreational ACL, and managers achieve the recreational ACL through the use of an RHL, which is set equal to the ACL minus estimated discard mortality. Accountability measures are already implemented in a way to take advantage of existing flexibility within the National Standard 1 Guidelines.[15] Option A is the only option that has a clearly stated goal of constraining harvest annually to the RHL and ACL, both science-based tools that are key to preventing overfishing in the long-term. Despite that goal, both the black sea bass and scup recreational fisheries exceeded their RHL in 2021, and more recently, the Atlantic states were unable to agree upon measures that would meet the scup RHL for the 2022 fishing season, leading NOAA Fisheries to propose a federal recreational closure.[16] This indicates that there is room for improvement in status quo management of these fisheries, particularly regarding how managers are monitoring and predicting recreational catch and accounting for uncertainty. We note that some of the advancements being considered in this Framework/Addenda, such as the use of the Recreational Fleet Dynamics Model and/or the Recreational Economic Demand Model, could potentially also be used to supplement status quo management.

Options B-E, by contrast, each indicate a preference for setting management measures in two-year cycles to align with new assessment information, and evening out accountability measures over two years. While this may in some cases provide more predictability for the recreational fishing community, it does not allow managers to respond to increased fishing effort or concerning biomass trends in as nimble as a fashion as annual measures. Some of the Options, particularly the Percent Change approach (Option B), also seem to further divorce management measures from ACLs with the use of predetermined catch reductions/increases. Under Option B, necessary harvest reductions for a predicted overharvest that falls beneath the confidence interval (e.g., 20% if stock biomass is between the target level and 150% of the target, or no reduction if stock biomass is greater than 150% of the target) may not correlate to or properly respond to the RHL, and thus may be more likely to result in overfishing.[17]

For Options B-E to be properly assessed and compared, we believe more clarification is needed to ensure that recreational landings would be constrained to an RHL and ACL to prevent overfishing on an annual basis as required by the MSA. Our comments on the options are thus preliminary in nature. Of Options B-E, the Biological Reference Point Approach (Option D) may hold the most promise for improvements to status quo management, as it puts forth a wide variety of possible management responses depending on different combinations of spawning stock biomass and fishing mortality, with liberalizations or

[14] Draft HCR Framework/Addenda document, supra note 1, at 12.
[15] See, e.g., MAFMC Summary of Accountability Measures for Summer Flounder, Scup, and Black Sea Bass (December 2020), available at https://static1.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/5fc7f80aa37e3325c14d37a8/1606940682870/AMs+description_SF_scup+BSB_Dec2020.pdf
[16] NOAA Fisheries, Recreational Management Measures for the Summer Flounder, Scup, and Black Sea Bass Fisheries; Fishing Year 2022, 87 Fed Reg. 22863 (May 18, 2022).
[17] Harvest Control Rule Draft Framework/Addenda at 19.

restrictions also considering recruitment and biomass trends.[18] This approach may allow for the most built-in precautionary management to prevent overfishing, and allow for managers to respond more nimbly to changes in stock status and fishing effort. Option D also includes mandatory reactive AMs to respond to declining stock status, which the other options do not. However, as with the other new options, we believe a great deal more clarification is needed.

Implementing ACLs and Accountability Measures for Options B-E

We are particularly concerned by the Draft HCR Framework/Addenda's discussion on pages 32-33 of alternative "target metrics" for setting recreational measures. As discussed above, the current RHL-ACL framework is a critical component of preventing overfishing as required by the MSA. And, at least as explained in the Draft document, setting recreational measures based on a "Recreational Fishing Mortality Target," absent an RHL and ACL, would not comply with the ACL requirement.[19]

Additionally, it is important to consider that the consistent application of accountability measures is the linchpin of a functioning catch limit system. It is a primarily technical exercise to "set" a total allowable catch, but the implementation and use of AMs makes the difference between a "hard TAC," where fisheries are held accountable to meeting the science-based ACL, and a "soft TAC," where there is less accountability and overages of the TAC need not be paid back in the same way (i.e., TACs are viewed as a target rather than a limit). As the recreational sector continues to grow, it will be increasingly important to ensure that it is managed sustainably and with a focus on improving the accuracy and timeliness of data collection. Not only would reduced accountability for the recreational sector increase the risk of overfishing and stock depletion, but it will create a disparity with the commercial sector in the case of these mixed sector fisheries, likely leading to what are effectively de facto reallocations in some cases.

Lastly, the Draft HCR Framework/Addenda is an important opportunity to consider how management uncertainty can be better accounted for in setting catch levels. The potential relaxation of RHLs through these options, coupled with high management uncertainty, could lead to increasingly volatile seasons if those limits are exceeded and accountability measures are required to prevent overfishing. The National Standard 1 Guidelines require the use of buffers to account for management uncertainty.[20] Whether the Council and Commission opt to pursue any of the new management options or no action, it is critical to consider relative management uncertainty.

Additional Process Considerations

If the Council and Commission pursue one of the HCR options currently proposed, we strongly suggest phasing in implementation of new measures and beginning with one fishery on a trial basis. The HCR approach represents a significant departure from how recreational fisheries for these four species have been managed to date, and the status of the stocks and recent management trends indicate that a precautionary approach is warranted. All four of the stocks being considered have once been overfished and subsequently rebuilt, while bluefish is still under its second rebuilding plan, and summer flounder is

[18] Harvest Control Rule Draft Framework/Addenda at 25-28.
[19] MSA §§ 302(h)(6), § 303(a)(15); 16 U.S.C. §§ 1852(h)(6), 1853(a)(15)
[20] 50 C.F.R. § 600.310(f)(1)(v), (4)(i).

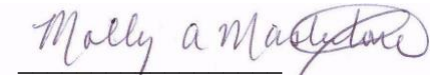
below its biomass target.[21] The black sea bass fishery, which is at double its target biomass level, may be the most appropriate fishery on which to trial new models and management approaches within the MSA framework.

This action could be highly significant for the health of the managed fish populations, the livelihoods of fishermen and anglers who depend on them, and for other regions following along. We re-emphasize that it is important to pause further consideration of this action until the SSC has completed its full review of the questions before it, the SSC and Commission/Council have further time to review the statistical models, and there is subsequent opportunity for public engagement through an iterative Council process. The Council should also prioritize improvements the Marine Recreational Information Program (MRIP) and other surveys, including consideration of the of the data collection, analysis, and integration recommendations set forth in the 2021 report by the National Academy of Sciences (NAS) to facilitate better annual and in-season management.[22]

* * * *

Thank you for the opportunity to comment on these important issues. Please do not hesitate to contact us if you have any questions.

Sincerely,



Molly Masterton
Director, U.S. Fisheries and Staff Attorney
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Ocean Conservancy

[21] Harvest Control Rule Draft Framework/Addenda at 8-10.
[22] National Academies of Sciences, Engineering, and Medicine 2021. Data and Management Strategies for Recreational Fisheries with Annual Catch Limits. Washington, DC: The National Academies Press. https://doi.org/10.17226/26185.

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April 21, 2022

Dustin Colson Leaning
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Atlantic States Marine Fisheries Commission
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Arlington VA. 22201

RE: Harvest Control Rule

Dear Mr. Leaning

The Virginia Saltwater Sportfishing Association was founded in 2015 and currently represents over 600 anglers and six fishing clubs in the Commonwealth of Virginia. VSSA submits the following comments on the Guide to the Recreational Harvest Control Rule Draft Framework/Addenda.

Of the five (5) options offered for setting the recreational bag, size, and season limits we can only recommend only Option B at this time. VSSA strongly believes the harvest control rule options should consider more than just recreational harvest data from the questionable MRIP data when determining the recreational bag, size and seasons. Additionally, we believe more comprehensive data such as fishing mortality, recruitment, and in particular the biomass level mentioned in options C, D, & E are needed, but not until the actual outcomes and harvest levels, or the measures, for these alternatives can be quantified.

In summary, VSSA does not support status quo and we urge managers to implement alternatives that use more than just the recreational harvest data for determining measures. Additionally, we cannot choose a specific alternative until we know the outcomes of measures for options C, D & E. Option B is better than status quo and look forward to re-evaluating Options C, D and E, once the measures and harvest levels for those alternatives are known.

Thank you for the opportunity to comment and considering our position on this important issue."

Respectfully,

John J. Bello
Chair – Government Relations Committee

Cc Patrick Geer - VMRC

April 22, 2022

Dustin Colson Leaning, FMP Coordinator
Atlantic States Marine Fisheries Commission
1050 North Highland Street, Suite 200
Arlington, VA 22201

Re: Harvest Control Rule

Dear Mr. Colson Leaning,

On behalf of *Wild Oceans*, an organization founded by anglers in 1973, I am pleased to provide comments on the Harvest Control Rule for Recreational Management Addenda/Framework, which would modify the Mid-Atlantic Fishery Management Council (MAFMC) and Atlantic States Marine Fisheries Commission (ASMFC) management plans for summer flounder, black sea bass, scup and bluefish.

Our organization firmly believes that the conservation of fishery resources must be first and foremost in order to secure a vibrant future for fishing. Health of the resource must be prioritized over fisheries access in management plans. Therefore, we are disappointed that the draft document was sent out for public comment before statistical models necessary for informing the options are ready for use[1] and before the completion of a scientific evaluation of overfishing risk associated with the various options. **Absent this information, we cannot support moving ahead with the Addenda/Framework at this time.**

The Magnuson-Stevens Fishery Conservation and Management Act (MSA) requires the federal councils to prevent overfishing. Specifically, National Standard 1 Guidelines call on the regional management councils to "establish an ABC [acceptable biological catch] control rule that accounts for scientific uncertainty in the OFL [overfishing limit] and for the Council's risk policy, and that is based on a comprehensive analysis that shows how the control rule prevents overfishing. The Council's risk policy could be based on an acceptable probability (at least 50 percent) that catch equal to the stock's ABC will not result in overfishing."[2] ABCs recommended by the Council's Scientific and Statistical Committee (SSC) must prevent overfishing and must consider scientific uncertainty consistent with the Council's risk policy.[3]

[1] Holzer, J., Jiao, Y. and Jones, C. September 20, 2021. *Mid-Atlantic Fishery Management Council Sub-Group of the Scientific and Statistical Committee. Peer Review Report of Recreational Fishery Models*. https://www.mafmc.org/s/05_Rec-Model-Peer-Review-Reports.pdf

[2] 50 CFR § 600.310 (f)(2)

[3] Memorandum from the Joint PDT/FMAT for Recreational Reform to the Mid-Atlantic Fishery Council and ASMFC Policy Board. *Overview of work, major accomplishments, and timeline recommendations*. October 1, 2021. https://www.mafmc.org/s/03_FMAT-PDT-Memo-RecReform.pdf

Annual Catch Limits (ACLs) cannot exceed the ABC and must work in coordination with Accountability Measures (AMs) to prevent overfishing.[4]

To understand how each of the harvest control rule options perform under the MAFMC risk policy, the Council and ASMFC Policy Board passed a motion at their February joint meeting to:

> Request that the SSC provide a qualitative evaluation, in time for final action at the June 2022 Council/Policy Board meeting, regarding the potential effect of each of the five primary alternatives in the Harvest Control Rule Addendum/Framework on the SSC's assessment and application of risk and uncertainty in determining ABCs. The intent is to provide the Council and Policy Board with information to consider the tradeoffs among the different alternatives with respect to the relative risk of overfishing, increasing uncertainty, fishery stability, and the likelihood of reaching/remaining at B_{MSY} for each approach at different biomass levels.[5]

Regrettably, this evaluation is not scheduled to be complete and available for public review until after the public comment period for this action closes.

Recreational fisheries are fundamentally different from commercial fisheries and warrant different approaches to the way they are monitored and managed. *Wild Oceans* supports the goal of the Addenda/Framework "to establish a process for setting recreational bag, size, and season limits for summer flounder, scup, black sea bass, and bluefish such that measures aim to prevent overfishing, are reflective of stock status, appropriately account for uncertainty in the recreational data, take into consideration angler preferences, and provide an appropriate level of stability and predictability in changes from year to year." However, meeting this goal should not come at the expense of holding the recreational sector to a lesser standard than commercial fisheries when it comes to conservation of the resource. A scientifically-robust evaluation of harvest control rule options should ensure stakeholders this is not the case.

Without the final report from the Mid-Atlantic Fishery Management Council's Scientific and Statistical Committee and in the absence of statistical models deemed "critical for thorough analysis of the options," we cannot select a preferred option at this time. We urge both the ASMFC and the MAFMC to postpone final action until these tools become available and the public is granted adequate time to evaluate the Harvest Control Rule options with these resources in hand.

Thank you for your consideration.

Sincerely,

Pam Lyons Gromen
Executive Director

[4] MSA § 303(a)(15)
[5] MAFMC. February 2022 Meeting Motions. https://www.mafmc.org/s/2022-02_MAFMC-Motions.pdf

Recreational Harvest Control Rule Addenda/Framework

Options Reference Guide

Introduction

The Atlantic States Marine Fisheries Commission (Commission) and the Mid-Atlantic Fishery Management Council (Council) are considering changes to the process for setting recreational bag, size, and season limits (i.e., recreational measures) for summer flounder, scup, black sea bass, and bluefish. Key goals include providing greater stability and predictability in the recreational fishery management measures from year to year. The Commission is considering these changes through draft addenda, and the Council is considering an identical set of options through a framework action. Collectively, these management actions are referred to as the *Recreational Harvest Control Rule Draft Addenda/Framework*. Both groups will meet jointly to consider public comments before taking final action.

This reference guide provides an overview of the options under consideration in the Draft Addenda/Framework. This guide is intended to be used with the Draft Document for Public Comment, which provides more detail on the options.

How to Provide Comments

Comments may be submitted at any of eight virtual public hearings held between **March 16** and **April 13, 2022**, or via written comment through **April 22, 2022**. Please visit http://www.asmfc.org/about-us/public-input for a hearing schedule and instructions for submitting comments.

Management Options to Set Recreational Management Measures

Section 3.1 of the Draft Addenda proposes five possible approaches for setting recreational measures. As described below and summarized in Table 5, key differences between the options include the information considered when setting measures and the circumstances under which measures would change. These differences have implications for how often measures would change, how responsive they are to changing conditions, and the primary conditions of concern (e.g., stock size, level of recreational harvest, or other factors). Please refer to the Draft Addenda for more details on each option.

None of the options would implement any specific bag, size, or season limits. Rather, they would define the process for establishing measures using different approaches and different types of information. Specific measures would be established and modified through separate future actions through the Commission and Council's specifications process.

As you review these options, we encourage you to think about the following questions:

- In your opinion, which option represents the best process for setting recreational management measures and why?
- What types of information are most important in guiding the selection of management measures (e.g., stock size, recent harvest levels, whether or not overfishing is occurring)?
- What circumstances should trigger changes in management measures (e.g., a change in stock size, an expected harvest limit overage or underage)?

Option A. No Action (Current Recreational Measures Setting Process)

Draft Addenda Section 3.1.A

Under this option, no change would be made to the current requirements for setting recreational bag, size, and season limits. Under the current requirements, measures aim to prevent recreational harvest from exceeding the annual recreational harvest limit (RHL). Generally, measures are determined based on a comparison of recent harvest estimates to the upcoming RHL. If recent harvest is higher than the RHL, then more restrictive measures are generally put in place. If harvest is lower than the RHL, measures are generally relaxed. This process does not vary based on stock status (how healthy the stock is) and generally does not account for expected differences in availability or other factors in the upcoming year compared to previous years. Under this option, measures are not pre-defined and can change as often as every year - especially if large RHL overages or underages are expected under status quo measures.

Option B. Percent Change Approach

Draft Addenda Section 3.1.B

This option uses the following two factors to determine if and how measures should change:

(1) **Expected harvest compared to future recreational harvest limits** (RHLs) – based on a comparison of recent harvest estimates to upcoming RHLs

(2) **Stock size** (B/B_{MSY}) – a measure of how current stock size (B) compares to the target level (B_{MSY})

Table 1 below illustrates how information about expected harvest and stock size would be used to determine if management measures should be restricted, liberalized, or remain unchanged. Depending on the sub-options chosen, changes in measures would aim to achieve specific percentage changes in harvest. Under this option, changes would be considered every other year when new scientific information about the stock is available. Compared to the other options under consideration, this option is most similar to the current process as it relies heavily on comparisons of expected harvest to the RHL. This option differs from the current process in that the percent change in harvest varies depending on the size of the stock.

Table 1. Process for determining the appropriate percent change in harvest when developing management measures under the percent change approach.

Row	Estimated harvest compared to future limits	Stock Size (B/B_{MSY})	Target Change in Harvest	
A	Harvest expected to be below the upcoming recreational harvest limits	Very high (at least 150% of the target stock size)	Sub-Option B-1A: Liberalization amount based on difference between expected harvest and RHL	Sub-Option B-1B: Large liberalization: 40%
		High (between the target and 150% of the target stock size)	Sub-Option B-1A: Liberalization amount based on difference between expected harvest and RHL	Sub-Option B-1B: Medium liberalization: 20%
		Low (below the target stock size)	Sub-Option B-2A: Small liberalization: 10%	Sub-Option B-2B: No liberalization or reduction
B	Harvest expected to be close to the upcoming recreational harvest limits	Very high (at least 150% of the target stock size)	Small liberalization: 10%	
		High (between the target and 150% of the target stock size)	No liberalization or reduction	
		Low (below the target stock size)	Small reduction: 10%	
C	Harvest expected to be higher than the upcoming recreational harvest limits	Very high (at least 150% of the target stock size)	Sub-Option B-2A: Small reduction: 10%	Sub-Option B-2B: No liberalization or reduction
		High (between the target and 150% of the target stock size)	Sub-Option B-1A: Reduction amount based on difference between expected harvest and RHL	Sub-Option B-1B: Medium reduction:20%
		Low (below the target stock size)	Sub-Option B-1A: Reduction amount based on difference between expected harvest and RHL	Sub-Option B-1B: Large reduction: 40%

Option C. Fishery Score Approach

Draft Addenda Section 3.1.C

This option combines multiple data inputs into one "fishery score" which would be used to guide the selection of management measures. The fishery score incorporates four data inputs:

(1) **Stock size** (B/ B_{MSY}) – current stock size (B) compared to the target level (B_{MSY})
(2) **Recruitment** – the amount of new fish entering the population each year
(3) **Fishing mortality** (F/F_{MSY}) – the rate at which fish are removed by the fisheries (F) compared to the threshold level that defines overfishing (F_{MSY})
(4) **Expected harvest compared to future recreational harvest limits** (RHLs) – a measure of how effective the previous measures were at controlling harvest

Based on the resulting score, the stock would be placed into one of four "bins" with corresponding management measures, as illustrated in Table 2 below. Each bin would be associated with a range of stock status and fishery performance conditions, with Bin 1 representing the best conditions and the most liberal measures and Bin 4 representing the worst conditions and most restrictive measures. Each bin would have pre-defined measures. The measures for each bin would aim to achieve a target level of recreational harvest, dead catch (harvest and fish presumed to die when released), or fishing mortality that is appropriate for the stock conditions associated with that bin.

The intent is to consider changes in measures when new stock assessment information is available – typically every other year. Measures would only change when the stock moves to a different bin based on the data inputs listed above. Compared to all other options, measures may change less frequently under this approach because measures would remain in place over a greater range of conditions. However, compared to the other options, the changes would likely be greater in magnitude.

Table 2. Fishery score bins, associated stock status and fishery performance outlook, and relative differences in measures.

Bin	Fishery Score	Stock Status and Fishery Performance Outlook	Measures
1	4-5	Good	Most Liberal
2	3-3.99	Moderate	Liberal
3	2-2.99	Poor	Restrictive
4	1-1.99	Very Poor	Most Restrictive

Option D. Biological Reference Point Approach

Draft Addenda Section 3.1.D

This option uses two primary factors to guide the selection of management measures:

(1) **Stock size** (B/B_{MSY}) – current stock size (B) compared to the target level (B_{MSY})
(2) **Fishing mortality** (F/F_{MSY}) – a measure of whether overfishing is occurring

As illustrated in Table 3 below, the stock would be assigned to one of seven bins based on these two factors. Each bin would have a set of default measures which would be implemented the first time the stock is placed in that bin. Subsequent stock assessment updates may require movement to a different bin. If, in a subsequent year, a stock assessment indicates no major change in stock condition, then other factors (stock size, recruitment, and trends in harvest levels) would be considered to determine if measures should be modified to the secondary measures within the same bin (i.e., slightly more restrictive or slightly more liberal than the default measures).

The primary and secondary measures in each bin would be pre-defined. The measures for each bin would aim to achieve a target level of recreational harvest, dead catch (harvest and fish presumed to die when released), or fishing mortality that is appropriate for the stock conditions associated with that bin.

This approach allows for stability of measures if stock status is unchanged and smaller changes in measures if warranted based on stock size, recruitment, and/or expected harvest. Compared to the fishery score and biomass-based matrix approaches, this option may result in more frequent changes in measures, but the changes may be smaller in magnitude.

Table 3. Summary of the Biological Reference Point Option illustrating bins of measures associated with different combinations of stock conditions. Green indicates the most liberal measures and red the most restrictive. B stands for stock biomass compared to the target level and R stands for recruitment.

Stock Biomass Compared to Target Level	Overfishing is Not Occurring Fish are being harvested sustainably	Overfishing is Occurring Too many fish are being removed through fishing
Very High At least 150% of the target stock size	B↑ / R↑: liberal; B↑ / R↓: liberal; B↓ / R↑: default; B↓ / R↓: default **1**	Recent harvest limits **have not** been exceeded: B↑ / R↑: default; B↑ / R↓: restrictive; B↓ / R↑: restrictive; B↓ / R↓: restrictive Recent harvest limits **have** been exceeded: B↑ or B↓: restrictive and re-evaluate measures **4**
High Above the target, but below 150% target stock size	B↑ / R↑: liberal; B↑ / R↓: liberal; B↓ / R↑: default; B↓ / R↓: default **2**	Recent harvest limits **have not** been exceeded: B↑ / R↑: default; B↑ / R↓: restrictive; B↓ / R↑: restrictive; B↓ / R↓: restrictive Recent harvest limits **have** been exceeded: B↑ or B↓: restrictive and re-evaluate measures **5**
Low Below the target stock size, but more than 50% of the target stock size	B↑ / R↑: default; B↑ / R↓: restrictive; B↓ / R↑: restrictive; B↓ / R↓: restrictive **3**	Recent harvest limits **have not** been exceeded: B↑ / R↑: default; B↑ / R↓: restrictive; B↓ / R↑: restrictive; B↓ / R↓: restrictive Recent harvest limits **have** been exceeded: B↑ or B↓: restrictive and re-evaluate measures **6**
Overfished (Too Low) Less than 50% of the target stock size	**MOST RESTRICTIVE/REBUILDING PLAN** **7**	

Option E. Biomass Based Matrix Approach

Draft Addenda Section 3.1.E

This option would set recreational measures based on two factors:

(1) **Stock size** (B/B_{MSY}) – current stock size (B) compared to the target level (B_{MSY})
(2) **Trend in stock size** – a measure of whether the stock size is increasing, decreasing, or stable

Based on these two factors, the stock would be placed into one of six "bins" with corresponding management measures, as illustrated in Table 4 below. Bin 1 represents the best conditions and the most liberal measures, while Bin 6 represents the worst conditions and the most restrictive measures. The measures for each bin would be pre-defined and would aim to achieve a target level of recreational harvest, dead catch, or fishing mortality that is appropriate for the stock conditions associated with that bin.

Under this option the placement of a stock in a bin is guided only by stock size and stock size trend. This approach considers fewer types of information compared to the fishery score and biological reference point approaches. This option is the least reliant on estimates of recreational harvest compared to all other options.

Table 4. Recreational management measure matrix under the Biomass Based Matrix approach.

Stock Size (i.e., biomass compared to target level)	**Trend in stock size**		
	Increasing	**Stable**	**Decreasing**
Very High: At least 150% of target stock size	Bin 1		
High: Above the target, but below 150% target stock size	Bin 1	Bin 2	
Low: Below the target stock size, but more than 50% of the target stock size	Bin 3	Bin 4	
Overfished (Too Low): Less than 50% of the target stock size	Bin 5	Bin 6	

Table 5: Summary of information considered when setting recreational measures and expected number of sets of pre-determined measures under options A - E in Section 3.1 of the Draft Addenda.

Option in Section 3.1	**Information used to set measures**					**Expected number of pre-set measures**
	Expected harvest	**Stock size**	**Fishing mortality**	**Recruitment**	**Stock size trend**	
A: No action	Primary					Measures are not pre-set
B: Percent change	Primary	Primary				Measures are not pre-set
C: Fishery score	Primary	Primary	Primary	Primary		4
D: Biological reference point	Only when overfishing is occurring	Primary	Primary	Secondary	Secondary	13
E: Biomass based matrix		Primary			Primary	6

Additional Options Under Consideration

Target Metric for Setting Measures

The Fishery Score Approach, Biological Reference Point Approach, and Biomass Based Matrix Approach all use bins with pre-defined measures. If one of these approaches is selected, an option from Section 3.2 must be selected to specify whether the measures in each bin will aim to achieve a target level of recreational harvest (Option 3.3.A), recreational dead catch (harvest plus discarded fish that are presumed to die, Option 3.3.B), or fishing mortality (a measure of the rate of removal from the stock, Option 3.3.C).

Conservation Equivalency Options

Section 3.3 includes options to define the degree of flexibility states have in proposing alternative measures through the Commission's conservation equivalency process. Option 3.3.A allows individual states to propose alternative measures if they can demonstrate that they are expected to have the same impact on the stock as the measures which would otherwise be implemented. Option 3.3.B allows states to work together as regions to propose alternative measures which are expected to have the same impact on the stock as the measures which would otherwise be implemented. Option 3.3.C does not allow states or regions to propose alternative measures.

Key Terms

Biomass (B): The size of a stock of fish measured in weight.

Biomass target (B_{MSY}): The stock size associated with maximum sustainable yield (MSY), as defined by a stock assessment. When a stock's biomass is at or above its biomass target, the stock is able to replace more fish than are being removed through fishing and other sources of mortality.

Fishing mortality (F): The rate of fishery removals of fish from a stock, typically estimated through a stock assessment.

Fishing mortality threshold (F_{MSY}): The maximum rate of fishing mortality (the proportion of fish that are removed by fishing) that will, over the long term, result in maximum sustainable yield. When fishing mortality exceeds F_{MSY}, overfishing is occurring.

Fishing mortality target: A target level of fishing mortality used to set recreational management measures. Summer flounder, scup, black sea bass, and bluefish currently do not have recreational fishing mortality targets and instead are managed with recreational catch and harvest limits. Currently, stock-wide fishing mortality thresholds (F_{MSY}) are established for each stock and apply to all sources of fishing mortality combined, including the commercial and recreational fisheries.

Recreational Harvest Limit (RHL): The total allowable annual recreational fishery harvest, set based on information from the stock assessment, considerations about scientific and management uncertainty, allocations between the commercial and recreational sectors, and assumptions about dead discards.

Recruitment: The number of fish born within a given time period that survive to a certain stage (e.g., age 1).

Atlantic States Marine Fisheries Commission

DRAFT ADDENDUM XXXIV TO THE SUMMER FLOUNDER, SCUP, AND BLACK SEA BASS FISHERY MANAGEMENT PLAN AND ADDENDUM II TO THE BLUEFISH FISHERY MANAGEMENT PLAN FOR PUBLIC COMMENT

Harvest Control Rule for Recreational Management

This action is being developed with the Mid-Atlantic Fishery Management Council.

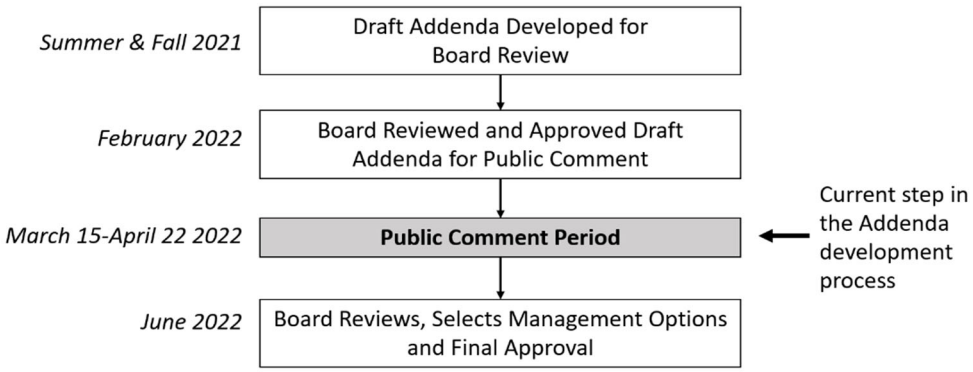
Approved for Public Comment February 2022
Updated March 2022 (Appendix 3)
Updated May 2022 (Section 3.1)

Sustainable and Cooperative Management of Atlantic Coastal Fisheries

Draft Document for Public Comment

Public Comment Process and Proposed Timeline

In October 2020, the Atlantic States Marine Fisheries Commission's (Commission) Interstate Fisheries Management Policy Board (Policy Board) and the Mid-Atlantic Fishery Management Council (Council) initiated draft addenda (for the Commission) and framework action (for the Council) to address management of the summer flounder, scup, black sea bass, and bluefish recreational fisheries. This document (Draft Addendum XXXIV to the Summer Flounder, Scup and Black Sea Bass FMP and Draft Addendum II to the Bluefish FMP, herein referred to as Draft Addenda) and the Council's framework consider modifications to the process for setting recreational bag, size, and season limits (i.e., "recreational measures") for all four species. The Draft Addenda and the Council's framework action consider an identical set of options and the Commission's Interstate Fisheries Management Policy Board (Policy Board) and Council will select the same management options for implementation. This document presents background on recreational management for these species and a range of options to set recreational measures for public consideration and comment. The addenda process and expected timeline are below.



After public comment, the Draft Addenda was revised to correct for some missing information and typos. In Section 3.1, the text for sub-options B-2A and B-2B was updated to match Table 1. Table 1 accurately reflected the intent of this option and change was only needed to the text. The text for both sub-options previously only described what would occur if the upcoming 2-year average RHL is below the lower bound of the CI around the harvest estimate and biomass is greater than 150% of the target level, and did not indicate that they also apply if the upcoming 2-year average RHL is greater than the upper bound of the CI around the harvest estimate and biomass is below the target.

Modifications were also made to the accountability measure sub-options under the fishery score and biological reference point approaches. For sub-options C-1 and E-1, additional text was added to note that the current process for bluefish includes a single-year comparison of dead catch to the ACL, as opposed to the three-year average comparison for the other three species. In addition, it was noted that the bluefish accountability measures also include considerations related to transfers between the commercial and recreational sectors. For sub-options C-2 and E-2, additional text was added to clarify that the intent is to re-evaluate measures only when overfishing is occurring and the recreational dead catch to ACL comparison shows an overage. This change was needed to clarify that recreational accountability measures are not triggered under this sub-option when overfishing is occurring but the recreational sector has not exceeded their ACLs.

Lastly, in the biological reference point approach, when providing examples of the biomass level measures would be based on for each bin, Bin 5 was changed to default measures based on biomass that is 75% of the target level, instead of 100% as it read previously. This change was made to differentiate Bin 5 from Bin 4.

Public comment may be submitted via public hearings or through written comment and will be accepted until April 22 at 11:59 p.m. If you have any questions or would like to submit a 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.**

Tips for Providing Public Comment

We value your input. To be most effective, please include specific details as to why you support or oppose a particular proposed management option. Specifically, please address the following:

- Which proposed options do you support, and which options do you oppose?
- Why do you support or oppose the option(s)?
- Is there any additional information you think should be considered?

For the options in Section 3.1, we encourage you to think about the following questions:

- In your opinion, which option represents the best process for setting recreational management measures and why?
- What types of information are most important in guiding the selection of management measures (e.g., stock size, recent harvest levels, whether or not overfishing is occurring)?
- What circumstances should trigger changes in management measures (e.g., a change in stock size, an expected harvest limit overage or underage)?

Submit Comments to:

Mail: Dustin Colson Leaning, FMP Coordinator
Atlantic States Marine Fisheries Commission
1050 North Highland Street, Suite 200 A-N
Arlington, VA 22201

Email: comments@asmfc.org
(Subject: Harvest Control Rule)
FAX: 703.842.0741

Table of Contents

1.0 Introduction

Summer flounder, scup, black sea bass, and bluefish fisheries are managed cooperatively by the Commission in state waters (0-3 miles) and by the Council and NOAA Fisheries in federal waters (3-200 miles). The management unit for summer flounder in U.S. waters is the western Atlantic Ocean from the southern border of North Carolina northward to the U.S.-Canadian border. The management unit for scup and black sea bass in U.S. waters is the western Atlantic Ocean from Cape Hatteras, North Carolina north to the Canadian border. Bluefish are managed in U.S. waters along the entire eastern seaboard, from Maine to Florida.

The Council and Commission jointly agree to recreational annual catch limits (ACLs) and recreational harvest limits (RHLs) for all four species, which apply throughout the management units. They also jointly agree to the overall approach to setting recreational bag, size, and season limits (i.e., recreational measures). Recreational measures in state waters are determined through the Commission process as outlined in Addendum XXXII for summer flounder and black sea bass, Addendum XI for scup, and Amendment 1 for bluefish.

In October 2020, the Commission's Policy Board and the Mid-Atlantic Fishery Management Council approved 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.*

During their February 2021 meeting, the Council and Policy Board prioritized development of the harvest control rule referenced in the motion above prior to further development of the other topics. This Draft Addenda and the complementary Council framework address only the harvest control rule; however, as described in more detail in later sections of this document, considerations related to uncertainty in the Marine Recreational Information Program (MRIP) data, guidelines for status quo measures, and multi-year measures are incorporated into many of the options.

The goal of the Draft Addenda and the Council's framework is to establish a process for setting recreational bag, size, and season limits for summer flounder, scup, black sea bass, and bluefish such that measures aim to prevent overfishing, are reflective of stock status, appropriately account for uncertainty in the recreational data, take into consideration angler preferences, and provide an appropriate level of stability and predictability in changes from year to year.

2.0 Overview

2.1 Statement of Problem

As described in more detail in section 2.2, the Commission and Council face a number of challenges setting recreational management measures for summer flounder, scup, black sea bass, and bluefish, including concerns related to uncertainty and variability in the recreational fishery data, the need to change measures (sometimes annually) based on those data, as well as the perception that measures are not reflective of current stock status. In addition, management measures have not always had their intended effect on overall harvest.

The purpose of this document is to consider a management approach called a harvest control rule to establish a process for setting recreational bag, size, and season limits for summer flounder, scup, black sea bass, and bluefish that aims to prevent overfishing, is reflective of stock status, appropriately accounts for uncertainty in the recreational data, takes into consideration angler preferences, and provides an appropriate level of stability and predictability in changes from year to year. The management options aim to rely less on expected fishery performance and instead uses a more holistic approach with greater emphasis on stock status indicators and trends.

Addendum XXXII established an interim management approach for summer flounder and black sea bass that addressed several key management objectives and served as a foundation for broad-based, long-term management reform. The Policy Board and Council are addressing ongoing management challenges and objectives via comprehensive, long-term management reforms over the next several years starting with this document. Those actions will draw upon improved recreational fishery data,[1] updated stock assessments, and innovative management tools.

2.2 Background

For all four species, recreational ACLs are set jointly by the species management board and the Council. ACLs account for landings and dead discards. An RHL for each species is set equal to the ACL minus expected dead discards. Recreational measures (i.e., bag, size, and season limits)

[1] MRIP is an evolving program with ongoing improvements to its methods. Several recent advancements including the transition from a telephone survey to a mail survey to estimate fishing effort have resulted in revisions to the recreational catch and harvest estimates.

are set with the goal of preventing RHL overages. In preventing RHL overages, these measures also aim to prevent ACL overages and overfishing.

The ACLs and RHLs are revised when new stock assessment information becomes available. They are based on stock assessment projections, considerations related to scientific uncertainty, and commercial/recreational allocations. The RHLs incorporate assumptions about dead discards and can be further reduced to account for management uncertainty.

The methods used to determine which measures will prevent RHL overages are not specified in the FMPs and may be modified based on annual recommendations from the Council's Monitoring Committees and the Commission's Technical Committees. MRIP harvest data from one or more recent years are typically used to predict the impacts of changes in bag, size, or season limits on harvest when setting recreational measures. This process typically relies on the assumption that if the recreational measures remain unchanged, next year's harvest will be similar to harvest in the current year or a recent multi-year average. If unchanged measures are expected to result in harvest notably above or below the RHL, then the measures are adjusted to achieve a desired percent liberalization or reduction in harvest based on an analysis of trends shown in recent years' MRIP data.

To allow for consideration of preliminary, current year MRIP data, the Commission's species management board and Council typically determine the overall approach for the upcoming year's recreational measures (e.g., status quo or an overall percentage liberalization or reduction) in December of the current year. They also agree to the federal waters measures in December with the approach for developing state waters measures typically approved by the board in February of the following year.

Of these four species, those that tend to harvest close to or more than their RHL (primarily summer flounder and black sea bass) have required frequent changes to the recreational bag, size, and season limits to prevent future RHL overages. In some cases, the required changes in measures appear to have responded to variability and uncertainty in the MRIP data rather than a clear conservation need. This challenge has been referred to as "chasing the RHL." In addition, many recreational stakeholders expressed frustration that the black sea bass measures did not seem reflective of stock status as they have generally been more restrictive in recent years compared to when the stock was under a rebuilding plan, despite the stock currently being more than double the target level and highly available to anglers.

The bluefish stock was declared overfished in 2019, triggering the development of a rebuilding plan and a need for more restrictive management measures than had previously been in place. The Draft Addenda includes special considerations for stocks in a rebuilding plan. The options in this document are not meant to replace the bluefish rebuilding measures. Any measures implemented for bluefish must comply with the rebuilding plan.

2.3 Status of the Stocks

2.3.1 Summer Flounder

The most recent summer flounder management track stock assessment was completed in June 2021, using data through 2019 (NEFSC 2021a). The Council and Commission FMP for summer flounder defines the management unit as all summer flounder from the southern border of North Carolina to the United States-Canada border. The assessment approach is a complex statistical catch-at-age model incorporating a broad array of fishery and survey data. Results from the 2021 assessment indicate that the summer flounder stock was not overfished, but was 14% below the biomass target, and overfishing was not occurring, in 2019 (Figure 1). Fishing mortality was 20% below the threshold level defining overfishing. More detail on the assessment can be found here.

The 2021 management track stock assessment provided the basis for setting fishery specifications for 2022–2023.

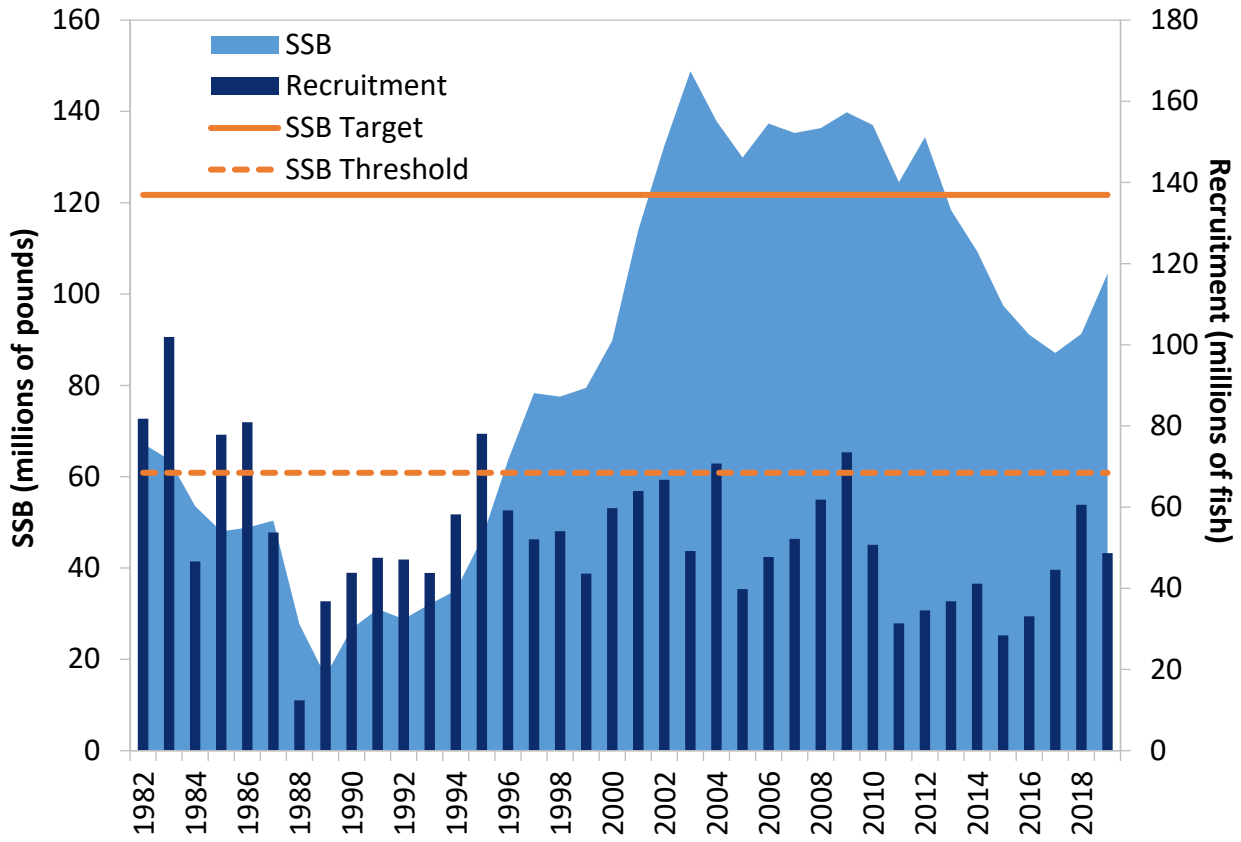


Figure 1. Summer flounder spawning stock biomass and recruitment. Source: 2021 Operational Assessment Prepublication Report, Northeast Fisheries Science Center.

2.3.2 Scup

The most recent scup management track stock assessment was completed in June 2021, using data through 2019 (NEFSC 2021b). The Council and Commission FMP for scup defines the management unit as all scup from Cape Hatteras, North Carolina to the United States-Canada border. The assessment approach is a complex statistical catch-at-age model incorporating a broad array of fishery and survey data. Results from the 2021 assessment indicate that the scup stock was not overfished and was about two times the biomass target, and overfishing was not occurring, in 2019 (**Figure 2**). Fishing mortality was 32% below the threshold level defining overfishing. More detail on the assessment can be found here.

The 2021 management track stock assessment provided the basis for setting fishery specifications for 2022–2023.

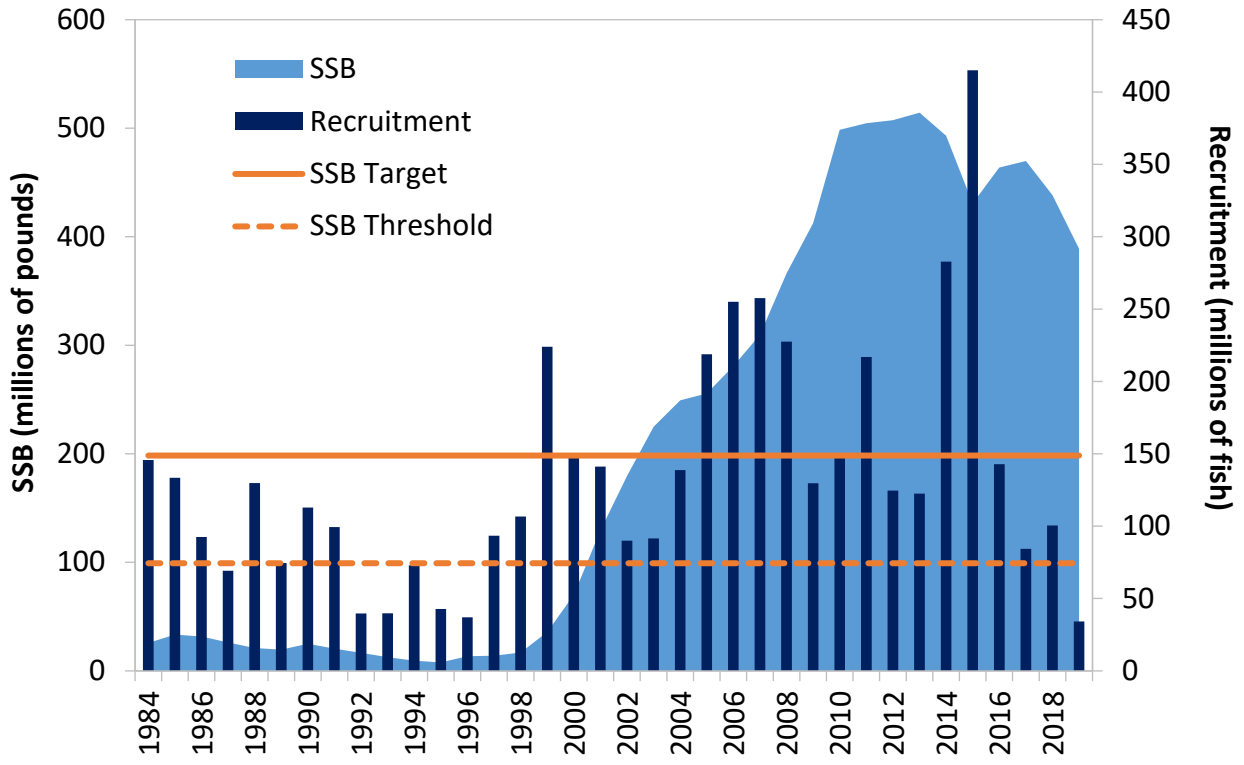


Figure 2. Scup spawning stock biomass and recruitment. Source: 2021 Operational Assessment Prepublication Report, Northeast Fisheries Science Center.

2.3.3 Black Sea Bass

The most recent black sea bass stock assessment update was completed in July 2021, using data through 2019 (NEFSC 2021c). The Council and Commission FMP for black sea bass defines the management unit as all black sea bass from Cape Hatteras, North Carolina to the United States-Canada border. The assessment modeled black sea bass as two separate sub-units (North and South) divided approximately at Hudson Canyon, from which results were combined for the entire stock's status determination. The assessment used a combined-sex, age-structured assessment model. Results from the 2021 assessment indicate that the black sea bass stock was not overfished and was about 2.2 times the target level, nor was overfishing occurring in 2019 (Figure 3). Fishing mortality was 15% below the threshold level defining overfishing. The assessment required an adjustment to account for the significant retrospective pattern. This adjustment was only applied to the terminal year of the assessment and the adjusted values are used for management. Of the four species considered in this action, only black sea bass required a retrospective adjustment in the assessment. More detail can be found here.

The 2021 management track stock assessment provided the basis for setting fishery specifications for 2022–2023.

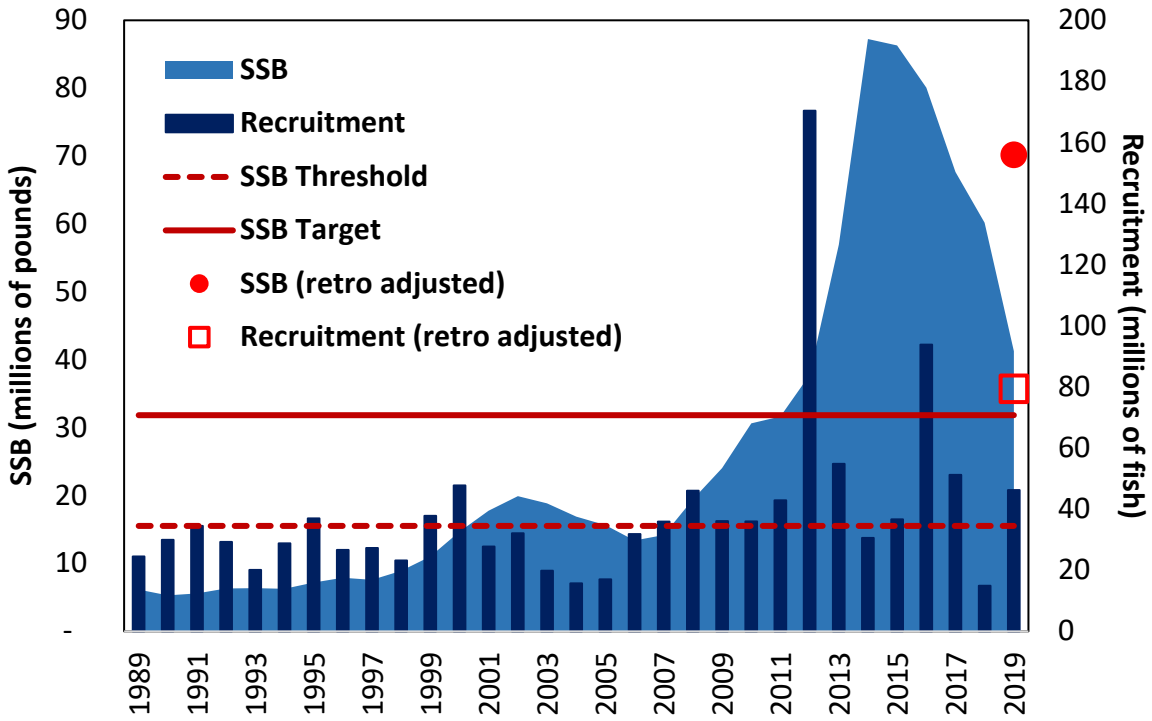


Figure 3. Black sea bass spawning stock biomass and recruitment with retrospective adjusted values. Source: 2021 Operational Assessment Prepublication Report, Northeast Fisheries Science Center.

2.3.4 Bluefish

The most recent bluefish management track stock assessment was completed in June 2021, using data through 2019 (NEFSC 2021d). The Council and Commission FMP for bluefish defines the management unit as all bluefish in United States waters of the western Atlantic Ocean. The assessment approach is a complex statistical catch-at-age model incorporating a broad array of fishery and survey data. Results from the 2021 assessment indicate that the bluefish stock was overfished and was 5% below the overfished threshold, but overfishing was not occurring in 2019 (Figure 4). Fishing mortality was 5% below the threshold level defining overfishing. More detail on the assessment can be found here.

The 2021 management track stock assessment along with the preferred rebuilding plan selected jointly by the Board and Council at their June 2021 meeting provided the basis for setting fishery specifications for 2022–2023.

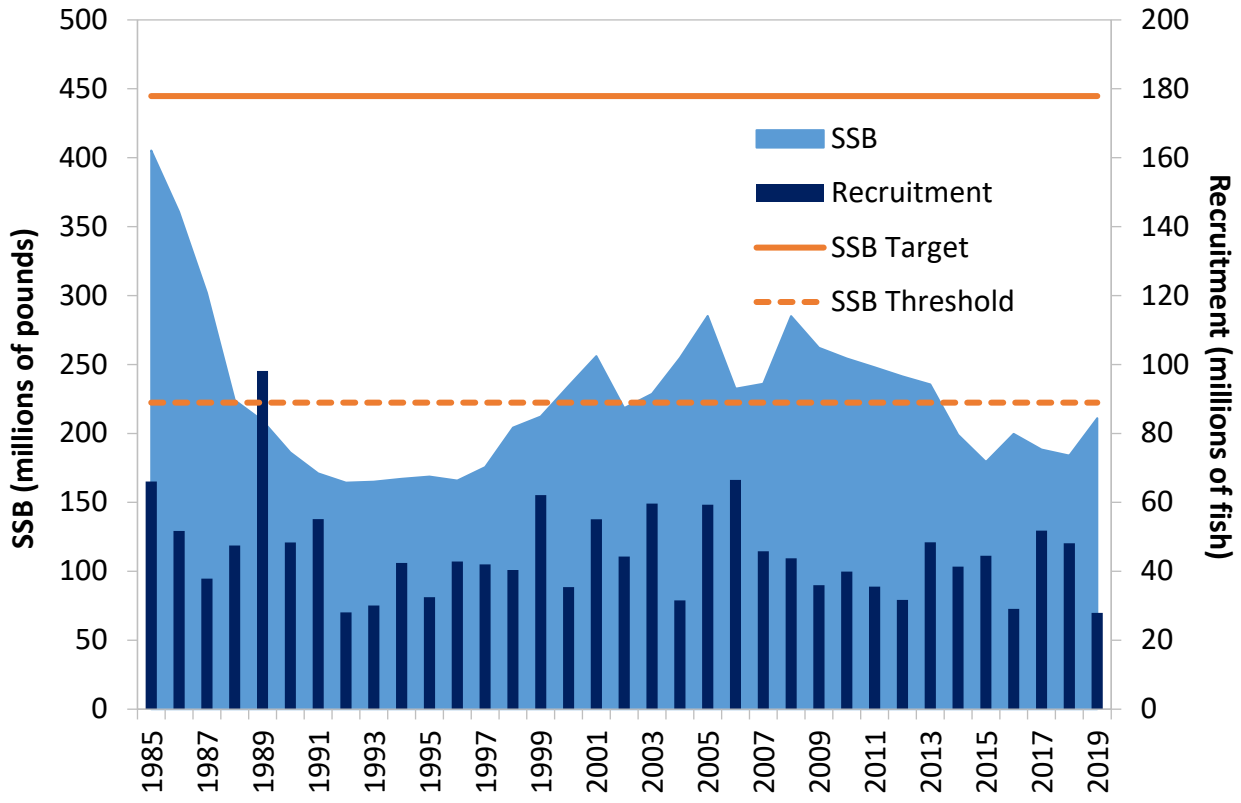


Figure 4. Bluefish spawning stock biomass and recruitment. Source: 2021 Operational Assessment Prepublication Report, Northeast Fisheries Science Center.

2.4 Status of the Fishery

2.4.1 Summer Flounder

Recreational harvest peaked in 1983 at 36.74 million pounds, and declined to a time series low of 5.66 million pounds in 1989. A more recent review of recreational fishery performance from 2011 to present reveals an average of 12.59 million pounds with a high of 19.41 million pounds in 2013 and a low of 7.60 million pounds in 2018. Recreational harvest in 2020 was 10.06 million pounds, a 29% increase from the prior year's harvest of 7.80 million pounds. The total recreational catch (harvest plus live and dead releases) of summer flounder in 2020 was 33.32 million fish, slightly lower than the time series average of 34.46 million fish. The assumed discard mortality rate in the recreational fishery is 10%. In 2020, an estimated 80% of the harvest (in numbers of fish) originated from private/rental boats, while shore-based anglers and party/charter boats accounted for an average of 18% and 2% of the harvest, respectively. In addition, 61% of summer flounder harvested by recreational fishermen (in numbers of fish) were caught in state waters and about 39% in federal waters.

2.4.2 Scup

Most recreational scup catches are taken in states of Massachusetts through New York. From 2011 to 2020, recreational harvest has ranged from 8.27 million pounds in 2012 to 14.12 million pounds in 2019. In 2020, recreational harvest was 12.91 million pounds. The total catch (harvest plus releases) of scup in 2020 were 27.27 million fish, slightly higher than the ten year average of 27.07 million fish. The assumed discard mortality rate in the recreational fishery is 15%. In 2020, an estimated 62% of the harvest (in numbers of fish) originated from private/rental boats, while shore-based anglers and party/charter boats accounted for an average of 28% and 10% of the harvest, respectively. In addition, 90% of scup harvested by recreational fishermen (in numbers of fish) were caught in state waters and about 10% in federal waters.

2.4.3 Black Sea Bass

After a drastic peak in 1986 at 11.19 million pounds, recreational harvest averaged 5.02 million pounds annually from 1987 to 1997. Recreational harvest limits were put in place in 1998 and harvest generally increased from 1.92 million pounds in 1998 to 9.06 million pounds in 2015. In 2016 and 2017 harvest jumped up to 12.05 and 11.48 million pounds, respectively; however the 2016 and 2017 estimates are regarded as implausibly high outliers by the Technical Committee. In 2020, recreational harvest was estimated at 9.12 million pounds with recreational live discards from Maine to Virginia estimated to be 29.79 million fish. Assuming 15% hook and release mortality, estimated recreational dead discards are 4.47 million fish, equal to 51% of the total recreational removals (harvest plus dead discards).

2.4.4 Bluefish

From 2011-2020, recreational catch (harvest plus fish caught and released) of bluefish in U.S. waters of the Atlantic coast averaged 44.46 million fish annually. In 2020, recreational catch was estimated at 30.68 million fish. In 2020, recreational anglers harvested an estimated 9.34

million fish weighing 13.58 million pounds (6,160 metric tons). Harvest during 2018-2020 was exceptionally low compared to the ten year average of 25.69 million lbs. The 2020 average weight of landed fish is 1.45 pounds, which is also lower than the ten year average of 1.65 pounds. This lower average weight is due to the regional distribution of state landings in 2020. The majority of the recreational harvest (pounds) came from Florida (42%), North Carolina (16%), New Jersey (13%), and New York (11%). Fish from southern states (NC-FL) made up 59% of the landings and are typically smaller on average than fish caught in northern states (ME-VA). In 2020, recreational dead releases (15% of released alive fish) were estimated at 3.20 million fish.

3.0 Proposed Management Program

The Policy Board and Council are considering changes to the process of setting recreational management measures for summer flounder, scup, black sea bass, and bluefish. These management changes are considered through the management programs of the Commission and the Council. The Council is bound by the requirements of the Magnuson-Stevens Fishery Conservation and Management Act (MSA), including requirements for ACLs, accountability measures, and prevention of overfishing. NOAA Fisheries, which has final approval authority for Council management documents, will not approve measures that are inconsistent with the MSA. NOAA Fisheries provides guidance throughout development of Council actions to ensure that the preferred options selected for implementation are consistent with the MSA and other applicable laws.

As proposed, the same options would be selected for all four species. It is not intended that one harvest control rule option would be used for some species and a different option for others. However, depending on considerations, such as ongoing development of statistical models to predict recreational harvest, the Policy Board and Council may consider approving different implementation dates by species for any change to the FMPs. All harvest control rule approaches involve various combinations of input metrics (data inputs), flexibilities, and accountability measures with the goal of standardizing management measure setting and providing stability to these recreational fisheries. A table for comparison across all options can be found in Appendix 1.

Stocks under an approved rebuilding plan are subject to the measures of that rebuilding plan, which may differ from the measures under the options below. None of the options in this document are meant to replace rebuilding plan measures. In some instances, measures implemented through the options below may be used as temporary measures until a rebuilding plan is implemented, which can take up to two years after the stock is declared overfished.

3.1 Management Options to Set Recreational Management Measures

Option A. No Action (Current Recreational Measures Setting Process)

Section 2.2 describes the process used in recent years to set recreational measures. The details of this process are not defined in the FMPs and can be modified without an addendum or other change to the FMPs. The following sections summarize the language currently in the Commission's FMPs regarding recreational measures for each species. Under the no action option, these sections of the FMPs could remain unchanged.[2]

1. Summer Flounder

As outlined in section 3.1 of Addendum XXXII, management measures are set annually through a specification process. The process involves the following steps:

- At the joint meeting with the Council typically in December, the Board and Council will decide whether to specify coastwide measures to achieve the coastwide RHL or conservation equivalent management measures using guidelines agreed upon by both management authorities. If the latter, the Board will then be responsible for establishing recreational measures to constrain harvest to the RHL.
- The Technical Committee (TC) will continue to evaluate harvest estimates as they are released, and project how suites of possession limits, size limits and seasons might impact recreational landings in each region. In recommending adjustments to measures (reductions, liberalizations or no change), the TC will examine several factors and suggest a set of regional regulations, which when combined, would not exceed the RHL. These factors could include but are not limited to stock status, resource availability (based on survey and assessment data), and fishery performance (harvest, discards, effort, estimate uncertainty, inter-annual variability), as well as the standards and guiding principles set forth below. The Board will use information provided by the TC to approve a methodology for the states to use in developing regional proposals, typically at the Commission's Winter Meeting.
- The states will collaborate to develop regional proposals for the current year's recreational measures that include possession limits, size limits and season length pursuant to the Board-approved methodology. These proposals will be reviewed by the TC to ensure the data and analysis are technically sound.

[2] Under the no action option, predicted harvest under any combination of measures could continue to rely on the methods described above, or alternative methods could be used if deemed appropriate. For example, the Council and Commission are supporting the development of statistical models for predicting harvest based on management measures and other factors. These models could be used under the no action option.

- The Board will review state proposals, TC recommendations, and establish final measures at a Summer Flounder, Scup, and Black Sea Bass Board meeting following the release of wave 6 MRIP estimates from the previous year.
- Once the Board has approved the measures and the states have promulgated them, the Commission will send a letter to the Regional Administrator certifying the Board approved measures, in combination, will achieve but not exceed the RHL.

The Board also uses a set of standards and guiding principles to structure the development of measures during specification setting (Addendum XXXII Section 3.1.1).

2. Scup

Addendum XI provides the ability for the Board and Council to establish management measures annually through a specification process. The process involves the following steps:

- At the joint meeting with the Council typically in December, the Board and Council will determine whether to maintain status quo measures or a liberalization or reduction in measures are needed to achieve the coastwide RHL.
- States will then proceed to develop proposals, typically the states MA-NY, but other states could have adjustments, for the upcoming year's recreational measures that include possession limits, size limits and season length. These proposals will be reviewed by the TC to ensure the data and analysis are technically sound.
- The Board will review state proposals, TC recommendations, and establish final measures at the Commission's winter meeting.

3. Black Sea Bass

As outlined in section 3.2 of Addendum XXXII, management measures are set annually through a specification process. The process involves the following steps:

- At the joint meeting with the Council typically in December, the Board and Council will decide whether to adopt coastwide measures or if the states will implement measures to constrain harvest to the RHL. If the latter, the Board will then be responsible for establishing recreational measures to be implemented in state waters to constrain harvest to the RHL.
- The TC will continue to evaluate harvest estimates as they are released, and project how suites of possession limits, size limits and seasons might impact

recreational landings in each region. In recommending adjustments to measures (reductions, liberalizations or no change), the TC will examine several factors and suggest a set of regulations for regions, which when combined, would not exceed the RHL. These factors can include but are not limited to stock status, resource availability (based on survey and assessment data), and fishery performance (harvest, discards, effort, estimate uncertainty, inter-annual variability), as well as the standards and guiding principles set forth below. The Board will use information provided by the TC to approve a methodology for the states to use in developing regional proposals, typically at the Commission's Winter Meeting.

- The states will collaborate to develop regional proposals for the current year's recreational measures that include possession limits, size limits and season length pursuant to the Board-approved methodology. These proposals will be reviewed by the TC to ensure the data and analysis are technically sound

- The Board will review state proposals, TC recommendations, and establish final measures at a Summer Flounder, Scup, and Black Sea Bass Board meeting following the release of wave 6 MRIP estimates from the previous year.

- Once the Board has approved the measures and the states have promulgated them, the Commission will send a letter to the Regional Administrator certifying the Board approved measures in combination will achieve but not exceed the RHL.

The Board also uses a set of standards and guiding principles to structure the development of measures during specification setting (Addendum XXXII Section 3.2.1).

4. Bluefish

As outlined in section 5.1.4.1.3 of Amendment 1, management measures are set annually through a specifications process. The process typically involves the following steps:

- At the joint meeting with the Council typically in December, the Board will determine whether to maintain status quo coastwide measures or a liberalization or reduction in measures are needed to achieve the coastwide RHL.

- In order to achieve the annual RHL, recreational fisheries will be constrained by a coastwide regime of coastwide size limits, bag limits, and seasons. Once a basic regime for these limits is established, typically at the joint meeting

with the Council in December, states will be given the opportunity to vary these measures in accordance with the Commission's Conservation Equivalency process[3].

- A state may submit a proposal for a change to its regulatory program to the Commission. Such changes shall be submitted to the ASMFC staff, which will distribute the proposal to the Management Board, the Plan Review Team, the Technical Committee, the Stock Assessment Subcommittee, and the Advisory Panel.
- States must submit proposals at least two weeks prior to a planned meeting of the Technical Committee.
- The ASMFC staff is responsible for gathering the comments of the Technical Committee, the Stock Assessment Subcommittee, and the Advisory Panel and presenting these comments to the Management Board at the Commission's winter meeting.
- The Management Board will decide whether to approve the state proposal for an option management program if it determines that it is consistent with the harvest target and the goals and objectives of the FMP.

5. Current Accountability Measures for Summer Flounder, Scup, Black Sea Bass, and Bluefish

The MSA requires Council FMPs to contain provisions for ACLs and "measures to ensure accountability." The National Standards Guidelines state that accountability measures (AMs) "are management controls to prevent ACLs, including sector-ACLs, from being exceeded, and to correct or mitigate overages of the ACL if they occur. AMs should address and minimize both the frequency and magnitude of overages and correct the problems that caused the overage in as short a time as possible." (50 CFR 600.310 (g)).

The current recreational AMs for these species were implemented through an omnibus amendment in 2013 (Amendment 19 to the Summer Flounder, Scup, and Black Sea Bass FMP and Amendment 4 to the Bluefish FMP). The AMs are included in the Council's FMP. They are not included in the Commission's FMP; however, any changes to the AMs considered through this action will be considered by both the Council and Commission.

Proactive AMs include adjustments to the management measures for the upcoming fishing year (as described in previous sections), if necessary, to prevent the RHL and ACL from being exceeded. Measures to prevent the RHL from being

[3] http://www.asmfc.org/files/pub/ConservationEquivalencyGuidance_2016.pdf

exceeded are ultimately intended to also prevent ACL overages, which in turn prevents overfishing.

Given the timing of MRIP data availability, the regulations do not allow for in-season closure of the recreational fishery if the RHL or ACL is expected to be exceeded. Therefore, measures must be set in a manner that is reasonably expected to constrain harvest to the RHL.

Reactive recreational AMs include a set of possible responses to exceeding the recreational ACL, depending on stock status and which limits are 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 summer flounder, scup, and black sea bass recreational fisheries 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 ($B < ½ B_{MSY}$), 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 ($½ B_{MSY} < B < B_{MSY}$), 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 measures and conditions that precipitated the overage.
b. If the ABC 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) * (B_{MSY}-B)/½ B_{MSY}*.

3. If biomass is above the target ($B > B_{MSY}$):

Adjustments to the recreational management measures (bag, size, and seasonal limits) will be made 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.

Reactive recreational AMs for the bluefish recreational fishery are very similar to the process described above with a few key differences. First, ACL overages are evaluated

on a 1-year basis as opposed to a 3-year average. Second, if a transfer between the commercial and recreational sectors caused the transferring sector to register an ACL overage, then instead of applying an overage payback to the transferring sector, a transfer in a subsequent year would be reduced by the amount of the ACL overage.

Option B. Percent Change Approach

This option differs from the no action option in that it includes additional consideration of biomass compared to the target level (B/B_{MSY}) when determining if the recreational management measures should be liberalized, restricted, or remain unchanged. The amount of change varies based on the magnitude of the difference between a confidence interval (CI)[4] around an estimate of expected harvest and the average RHL for the upcoming two years, as well as considerations related to biomass compared to the target level (B/B_{MSY}).

Specifically, the first step in determining the overall percent change in harvest would be to compare the average RHL for the upcoming two years to the CI[5] of the most recent two years of MRIP estimates, or to a CI around an alternative predictor of harvest based on a robust statistical methodology approved by the Technical and Monitoring Committees. The MRIP estimates (or approved alternative estimates) are intended as a proxy for expected harvest in the upcoming years under status quo measures, similar to the current process. Depending on whether the average RHL is above the upper bound of the CI, within the CI, or below the lower bound of the CI around the estimate of expected harvest, the management responses are narrowed down to those illustrated in rows A, B, and C in Table 1, respectively.

The second step narrows down the suite of management responses further by taking into consideration the B/B_{MSY} ratio. The third column in Table 1 displays the resulting percent change in measures required for the upcoming two years. A range of sub-options is under consideration for the resulting percent change when the RHL is above or below the bounds of the CI, as described below. Regardless of the sub-options chosen, when the RHL is within the CI, no change in measures would be made if the B/B_{MSY} ratio is between 1 and 1.5 (i.e., the stock is between the target biomass level and 150% of the target level). A 10% liberalization in harvest would be allowed when the B/B_{MSY} ratio exceeds 1.5 (i.e., the stock is greater than 150% of the target biomass level). A 10% reduction in harvest would be required when the B/B_{MSY} ratio is less than 1 (i.e., biomass is below the target level).

[4] A confidence interval provides an upper and lower bound around a point estimate to indicate the range of possible values given the uncertainties around the estimate. For example, a CI of 5% for an estimate of 100 would mean that the value could fall anywhere between 105 and 95. In this option, the CI represents a range of potential harvest estimates that can be reasonably expected to encompass the true harvest value.

[5] Specifically, an 80% joint distribution CI has been suggested as this method takes into consideration the percent standard error (PSE) of each individual years' MRIP estimate and the variability of the estimates between years.

It is important to note that this option considers changes from a starting set of measures. If the current measures have resulted in notable differences between harvest and the RHL in recent years, then they may not be an appropriate starting point under this option and an alternative starting point may be required.

Table 1. Process for determining the appropriate percent change in harvest when developing management measures under the percent change approach.

Row	Future RHL vs Harvest Estimate[6]	B/B_{MSY}[7]	Change in Harvest	
A	Future 2-year avg. RHL greater than upper bound of harvest estimate CI	> 1.5	Sub-Option B-1A: Liberalization percent equivalent to difference between harvest estimate and 2-year avg. RHL	Sub-Option B-1B: 40% Liberalization
		1 – 1.5	Sub-Option B-1A: Liberalization percent equivalent to difference between harvest estimate and 2-year avg. RHL	Sub-Option B-1B: 20% Liberalization
		< 1	Sub-Option B-2A: 10% Liberalization	Sub-Option B-2B: 0%
B	Future 2-YR avg. RHL within CI of harvest estimate	> 1.5	10% Liberalization	
		1-1.5	0%	
		< 1	10% Reduction	
C	Future 2-YR avg. RHL less than lower bound of harvest estimate CI	> 1.5	Sub-Option B-2A: 10% Reduction	Sub-Option B-2B: 0%
		1-1.5	Sub-Option B-1A: Reduction percent equivalent to difference between harvest estimate and 2-year avg. RHL	Sub-Option B-1B: 20% Reduction
		< 1	Sub-Option B-1A: Reduction percent equivalent to difference between harvest estimate and 2-year avg. RHL	Sub-Option B-1B: 40% Reduction

Under this option, the Council and Board would consider adjusting the recreational management measures in sync with the setting of catch and landings limits in response to updated stock assessment information. It is anticipated that updated stock assessments will be available every other year. In interim years, the Council and Board would review the catch and landings limits compared to the measures. They may revise the measures in interim years if new data such as a research track stock assessment or other technical

[6] The two year average MRIP estimate with associated CI is intended as a predictor of future harvest under status quo measures. This may be replaced with statistical model based approaches for predicting harvest.

[7] The proposed B/B_{MSY} inflection points are based on the Council's Risk Policy. Future changes to the Council risk policy may warrant reconsideration of this proposed process.

reports suggest that the measures are not performing as expected or if a change is needed for other reasons. The intent would be to only change the measures in interim years if new information suggests strong concerns with the current measures.

Sub-Options for Percent Change When the RHL is Outside the Bounds of the Expected Harvest Estimate CI – *This section was updated May 2022, as shown in tracked changes below*

If the Policy Board and Council adopt the percent change approach, they must also select either sub-option B-1A or B-1B. In addition, they must also select either sub-option B-2A or B-2B.

Sub-Option B-1A: Percent Change Capped at Difference Between 2 Year Average RHL and Harvest Estimate

If selected, this sub-option would be used in the following two situations: 1) the average two-year RHL is above the upper bound of the harvest estimate CI (Row A in Table 1) and biomass is at or above the target (B/B_{MSY} is at least 1), or 2) the average two-year RHL is below the lower bound of the harvest estimate CI (Row C in Table 1) and biomass is at or below 150% of the target (B/B_{MSY} is less than or equal to 1.5). Other situations either do not have sub-options (RHL is within the CI; Row B in Table 1) or are covered by sub-options B-2A and B-2B, below.

Under this sub-option, the percent liberalization or reduction in harvest would be defined as the percent difference between the two-year average RHL and a point value harvest estimate. The point value harvest estimate would be either a two-year average of recent MRIP harvest estimates or an alternative estimate based on a robust statistical methodology approved by the Monitoring/Technical Committees. The intent behind this sub-option is to scale liberalizations or reductions proportionately when there are large differences between the harvest estimate and the RHL. For example, if there is a 15% difference between the two-year average RHL and the point value harvest estimate, then the reduction would be 15%. The outcome of this sub-option could be very similar to the no action option (section 3.1.A).

Sub-Option B-1B: 20% or 40% Change (Depending on B/B_{MSY})

Under this sub-option, management measures would aim to achieve the following percentage liberalizations or reductions in overall harvest, as illustrated in Table 1:

- **40% liberalization** when the average two-year RHL is above the upper bound of the harvest estimate CI (Row A in Table 1) and biomass is more than 150% of the target level (B/B_{MSY} greater than 1.5).
- **20% liberalization** when the average two-year RHL is above the upper bound of the harvest estimate CI (Row A in Table 1) and biomass is above the target level but less than 150% of the target level (B/B_{MSY} of 1 – 1.5).
- **20% reduction** when the average two-year RHL is below the lower bound of the harvest estimate CI (Row C in Table 1) and biomass is above the target level but

less than 150% of the target level (B/B_{MSY} of 1 – 1.5).

- **40% reduction** when the average two-year RHL is below the lower bound of the harvest estimate CI (Row C in Table 1) and biomass is below the target level (B/B_{MSY} less than 1).

Other situations either do not have sub-options (RHL is within the CI) or are covered by sub-options B-2A and B-2B, below.

The intent of this sub-option is to provide predictable changes in harvest based on the percentage amount applied historically in management.

Sub-Option B-2A: 10% Reduction or Liberalization

Under this sub-option, management measures would aim to achieve a 10% reduction or liberalization in harvest, regardless of the scale of the expected underage or overage, as illustrated in Table 1.

- **10% liberalization** ~~**Under this sub-option,**~~ when the upcoming 2-year average RHL is greater than the upper bound of the CI around the harvest estimate (i.e., an RHL underage is expected) and biomass is below the target.
- **10% reduction** when the upcoming 2-year average RHL is below the lower bound of the CI around the harvest estimate (i.e., an RHL overage is expected) and biomass is greater than 150% of the target level.

The rationale behind a 10% liberalization is that a liberalization can be allowed, despite biomass being below the target, because an RHL underage is expected with status quo measures. ~~, measures would be modified such that expected harvest is reduced by 10%, regardless of the scale of the expected overage.~~ The rationale behind ~~this alternative~~a 10% reduction is that a reduction is needed to ensure that continued overages do not contribute to overfishing as required by the MSA; however, the assumption is that the reduction need not be greater than 10% per cycle given that biomass is very high compared to the target level. An analysis of potential impacts on stock status under this, as with all other options in this document, has not been performed.

Sub-Option B-2B: No Change in Measures

Under this sub-option, no change in the measures would be made, regardless of the scale of the expected underage or overage, when ~~the~~ either of the following situations occur:

- The upcoming 2-year average RHL is greater than the upper bound of the CI around the harvest estimate (i.e., an RHL underage is expected) and biomass is below the target.
- The upcoming 2~~-~~year average RHL is below the lower bound of the CI around the harvest estimate (i.e., ~~meaning~~ an RHL overage is expected under status quo

measures) and biomass is greater than 150% of the target level. ~~, no change in the measures would be made, regardless of the scale of the expected overage~~

~~.~~The assumption behind this alternative is ~~that~~ 1) liberalizations cannot be allowed because biomass is below the target level or 2) reductions are not needed because biomass is very high compared to the target level. However, it should be noted that harvest overages can contribute to overfishing, even at high biomass levels, and, as previously stated, in order to comply with the MSA, any adopted options must prevent overfishing. An analysis of potential impacts on stock status under this, as will all other options in this document, has not been performed.

Accountability Measures under the Percent Change Approach

Background information on AMs is provided in section 3.1 under Option A on page 16. Under the Percent Change Approach, measures would be more restrictive when stock status is poor and more liberal when stock status is good. In addition, when RHL overages are expected (based on the CI comparison described above), measures would be proactively reduced by a predetermined percent when the stock is less than 150% of the target level. Reductions would also be taken if the stock is below the target even when the RHL is within the CI, helping to rebuild the stock back to the target. These aspects of this option could all be considered proactive AMs.

This option requires minimal changes from the current reactive AMs described on page 16. The current reactive AMs would be modified such that when paybacks are required, the payback could be spread evenly across two years to help facilitate the use of constant measures across two years. When a payback is applied, the percent change would be determined based on the reduced ACL.

Consideration could also be given to options A and B listed in section 3.4. These options consider modifications to the metrics considered when biomass is above the threshold but below the target and a scaled payback of a past overage may be needed.

Option C. Fishery Score Approach

The fishery score is a formulaic method that combines multiple metrics into one value which is used to determine the appropriate management measures. Based on the score, the stock would be placed into one of four bins with corresponding management measures. The fishery score would be based on four metrics: biomass (B) relative to the target (B_{MSY}), recruitment (R), fishing mortality (F), and fishery performance, as described in more detail below and in Appendix 3. Each metric has a weight assigned to it, determined by the Technical/Monitoring Committees such that metrics with a stronger relationship to harvest would have more weight in the fishery score while still accounting for metrics that impact harvest but may not drive harvest. Additional metrics may be added and weighting schemes adjusted as more data become, based on the recommendations of the Monitoring/ Technical Committees.

The fishery score would be calculated using the following formula:

$$B/B_{MSY}(W_B) + F/F_{MSY}(W_F) + R\ (W_R) + \text{Fishery performance } (W_{FP}) = \text{Fishery Score}$$

Where W refers to the weight of each factor. The fishery score value corresponds to a predetermined bin. The fishery score would range from 1 to 5 and the bins are defined as displayed in Table 2.

Weights would have a minimum of 0.1 and maximum of 0.5 to prevent any one metric from being weighed too heavily in relation to the others. The intent is to allow the Monitoring/Technical Committees to recommend changes to the weights through the specifications process based on their expert judgement and empirical methods when possible. Changes should be limited to provide stability in comparisons over time.

Table 2. Fishery score bins and the associated level of concern, stock status, and measures that are associated with each bin.

Bin	Fishery Score	Stock Status and Fishery Performance Outlook	Measures
1	4-5	Good	Most Liberal
2	3-3.99	Moderate	Liberal
3	2-2.99	Poor	Restrictive
4	1-1.99	Very Poor	Most Restrictive

A declining fishery score over time could indicate negative trends in stock status and an examination of the individual fishery score metrics can provide insight into why the overall score is declining. This can also serve as an early warning of the need to use more restrictive measures in the future if the trend continues.

Measures associated with each of the four bins would aim to achieve a target level of harvest, catch, or fishing mortality, depending on the option selected from section 3.2. The target would be a point value, but the measures in each bin would be anticipated to produce a range of possible harvest, catch or fishing mortality, given uncertainty and variability in the data. Considerations related to confidence intervals and other statistical metrics and models could be used to determine the appropriate measures for each bin.

Although the fishery score would be calculated based on multiple factors, the management measures associated with each bin could be defined based on four categories of biomass. For example, the most liberal bin (Bin 1, fishery score of 4-5) could have measures based on a target level of harvest, catch, or fishing mortality (depending on the option selected from

section 3.2) which is appropriate for biomass that is double the target level. The next most liberal bin (Bin 2, fishery score of 3-3.99) could have measures that are appropriate for biomass at 125% of the target. The next lowest bin (Bin 3, fishery score of 2-2.99) could have measures that are appropriate for biomass at 75% of the target level. The most restrictive bin (Bin 4, fishery score less than 2) could have measures that are appropriate for biomass at 25% of the target level (however; if the stock is under a rebuilding plan, the most restrictive fishery score measures may be temporary until replaced by rebuilding plan measures).

While the measures associated with each bin would be based on biomass compared to the target, placement of a year's measures within one of the four bins would be driven by multiple factors. For example, if the recruitment and fishery performance metrics have low scores, then the stock may be placed in a more restrictive bin with more restrictive measures than would occur based on biomass considerations alone. The opposite could occur if multiple metrics have high scores. In this way, the measures would be reflective of a combination of biomass relative to the target and assumed future conditions (e.g., high recruitment assumed to result in higher biomass in the future, allowing for more liberal measures).

Under this option, the Council and Board would consider adjusting the recreational management measures in sync with the setting of catch and landings limits in response to updated assessment information. It is anticipated that updated stock assessments will be available every other year. In interim years, the Council and Board would review the catch and landings limits and the measures. As part of this review, the fishery score could be re-calculated with updated fishery performance data; however, updated estimates for the other fishery score metrics would not be available. The Council and Board may revise the measures in interim years if new data, such as a research track assessment or other technical reports, suggest that the measures are not performing as expected or if a change is needed for other reasons. The intent would be to only change the measures in interim years if new information suggests strong concerns with the current measures.

Sub-Options for Accountability Measures under the Fishery Score Approach *– This section was updated May 2022, as shown in tracked changes below*

Background information on AMs is provided in section 3.1 on page 16. For both sub-options in this section, measures are set based on a variety of factors such that they are more restrictive when stock status is poor and more liberal when stock status is healthy. In addition, as described above, this method can provide an early warning of deteriorating stock conditions which can inform the setting of measures. The measures for all bins will be regularly reviewed to ensure that they remain appropriate and prevent overfishing. These aspects of this approach can be considered proactive AMs.

Sub-Option C-1: Reactive AMs Similar to Current AMs

As under this sub-option, ACL overages would be 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) for summer flounder, scup, and black sea bass. For bluefish, this would be a single-year comparison. If ~~average catch exceeds the average~~this comparison shows an ACL overage, then the appropriate AM is determined based on the following criteria:

1. If the stock is overfished ($B < ½ B_{MSY}$), under a rebuilding plan, or the stock status is unknown:

    a. The stock is placed in the most restrictive bin. These may be temporary measures until replaced by measures required by a rebuilding plan, which can take up to two years to implement.

    b. If the stock was already in the most restrictive bin or the measures in the most restrictive bin are otherwise expected to continue to result in overages, then those measures must be modified as soon as possible following the determination of the overage such that they are reasonably expected to prevent future overages.

2. If biomass is above the threshold, but below the target ($½ B_{MSY} < B < B_{MSY}$), and the stock is not under a rebuilding plan:

    a. If only the recreational ACL has been exceeded, then the stock would remain in its current bin, but the measures associated with that bin and all other bins, will be re-evaluated with the goal of preventing future ACL overages.

    b. If the ABC or F_{MSY} (as determined through section 3.4) is exceeded in addition to the recreational ACL, and the stock has not already moved to a more restrictive bin due to a decrease in the fishery score, then the measures associated with the next more restrictive bin would be implemented. In addition, measures in all bins would be re-evaluated and revised as appropriate. If the stock moves to a more restrictive bin based on a decrease in the fishery score, then an additional AM is not needed as the negative impacts on stock status have already been accounted for in the movement to the more restrictive bin.

3. If biomass is above the target ($B > B_{MSY}$):

    The management measures associated with each bin will be adjusted, taking into account the performance of the measures and the conditions that precipitated the overage.

The bluefish regulations outline additional considerations for transfers in future years when a transfer between the commercial and recreational sectors was determined to have contributed to the ACL overage which triggered the AM.

Sub-Option C-2: Reactive AMs Based on Overfishing Status to Evaluate Measures

If overfishing is occurring (F is greater than F_{MSY}), and the recreational dead catch to recreational ACL comparison shows an overage, even if a change in bin was not triggered through re-calculation of the fishery score as described above, the management measures for all bins will be re-evaluated and modified as needed to appropriately constrain recreational catch and end overfishing.

Option D. Biological Reference Point Approach – *This section was updated May 2022, as shown in tracked changes below*

Under this option, the primary metrics of terminal year B/B_{MSY} and F/F_{MSY} from the most recent stock assessment would be used to guide selection of management measures. Management measures would be grouped into seven bins, as illustrated in **Error! Reference source not found.**. Each bin would have a set of default measures which would be implemented the first time the stock is placed in that bin.

To define the bins under this option, fishing mortality (F) would be considered in two states: overfishing (F greater than F_{MSY}) or not overfishing (F equal to or below F_{MSY}). B/B_{MSY} would be further divided to provide more responsive levels of access based on the following:

- Biomass is greater than or equal to 150% of the target.
- Biomass is greater than or equal to the target but less than 150% of the target.
- Biomass is less than the target, but greater than or equal to the threshold (the threshold is ½ the target).
- Biomass is less than the threshold (the stock is overfished).

Recruitment and trends in biomass are secondary metrics under this option which are used to fine tune default measures only when stock conditions (F/F_{MSY} and B/B_{MSY}) relative to the categories above have not changed between the prior and most recent assessments. In this case, biomass trend and a recruitment metric, describe in Appendix 3, can be used to further relax, restrict, or re-evaluate measures. As such, biomass trends and recruitment would impact the management measures, but to a lesser extent than F/F_{MSY} and B/B_{MSY}.

Changes to the measures would be considered based on the following process when updated stock assessment information is available (anticipated to be every other year). The first time a stock is in a new bin, the fishery would be subject to the default measures. If the bin remains unchanged after a subsequent stock assessment update, then recruitment and biomass trend would be considered to determine if measures remain unchanged or if limited liberalizations or reductions can be permitted. As described below, liberalizations within a bin are only allowed in Bins 1 and 2, which are associated with a healthy stock

status. Restrictions and/or re-evaluation within a bin can be required based on secondary metrics for Bins 3-6. This allows for relative stability if stock status is unchanged, but also room for tuning of measures if warranted based on biomass trend and/or recruitment. It is intended that the changes within a bin would be based on predetermined guidelines. However, the Council and Board may revise the measures in interim years if new data, such as a research track assessment or other technical reports, suggest that the measures are not performing as expected or if a change is needed for other reasons. The intent would be to only change the measures in interim years if new information suggests strong concerns with the current measures.

Liberalizations within a bin are not permitted when biomass is below the target level or when F exceeds F_{MSY}. For example, if a stock in Bin 2 (F below F_{MSY} and biomass above B_{MSY}, but below 150% of B_{MSY}) remains in Bin 2 based on an updated stock assessment, then measures may be liberalized to preset measures if recruitment and/or biomass trends show positive signs (see Appendix 3). If either of those metrics shown negative signs, then measures would stay status quo. If the updated stock assessment information indicates biomass exceeds 150% of B_{MSY}, then the stock would move into Bin 1, triggering a new set of default measures more liberal than those from Bin 2. Alternatively, if biomass is below the target, then the stock would move to a more restrictive bin (Bins 3-6).

Stocks in Bin 3 are not subject to overfishing and are not overfished but are below their target biomass level. Stocks in Bins 4-6 are experiencing overfishing. The goal of the management measures in Bins 3-6 is to improve stock status by ending overfishing and/or increasing biomass. If the initial default measures do not accomplish this, but the primary metrics of F/F_{MSY} and B/B_{MSY} do not change, then secondary measures can inform how to better adjust regulations to reach the target through additional restrictions. This differs from stocks in Bins 1-2, where measures would not be adjusted in this circumstance. Additionally, when a stock is in Bins 4-6 (F exceeds F_{MSY}) and the current measures produce catch or harvest that exceed the ACL or RHL (e.g., based on a multi-year average), then the default measures should be re-evaluated.

Any overfished stock (biomass below ½ B/B_{MSY}) would automatically fall into Bin 7 until an approved rebuilding plan is implemented. Stocks under a rebuilding plan must comply with the requirements of the rebuilding plan, and the rebuilding plan measures may differ from the pre-defined measures in this option.

Measures for Bins 1-7 would aim to achieve a target level of harvest, catch, or fishing mortality, depending on the option selected from section 3.2. Although placement in Bins 1-7 would be based on a combination of biomass and fishing mortality, the recreational management measures associated with each bin could be defined based on six categories of biomass and the target level of harvest, catch, or fishing mortality deemed appropriate for that biomass level. The following biomass levels are provided as examples which may be further refined. These examples were constructed such that more risk is allowed when stock status is good compared to when stock status is poor.

- **Bin 1** (biomass greater than or equal to 150% of the target and F below F_{MSY}): default measures are based on biomass that is double the target level.
- **Bin 2** (biomass above the target level but less than 150% of the target and F below F_{MSY}): default measures based on biomass that is 140% of the target level.
- **Bin 3** (biomass between the target and threshold and F below F_{MSY}): default measures based on biomass that is 75% of the target level.
- **Bin 4** (biomass greater than or equal to 150% of the target and F above F_{MSY}): default measures based on a biomass that is at the target level.
- **Bin 5** (biomass above the target level but less than 150% of the target and F above F_{MSY}): default measures based on biomass that is ~~at~~ 75% of the target level.
- **Bin 6** (biomass between the target and threshold and F above F_{MSY}): default measures based on biomass that is 60% of the target level.
- **Bin 7** (biomass below the threshold): default measures based on biomass that is 25% of the target level, until replaced by rebuilding plan measures.

The measures in each bin would be anticipated to produce a range of possible harvest, catch, or fishing mortality, given uncertainty and variability in the data. Considerations related to confidence intervals and other statistical metrics and models could be used to define the measures associated with each bin. Measures within each bin would take into consideration small changes to allow for liberalizations or reduction to allow for the flexibility to fine tune measures based on both recruitment and biomass trends in addition to the current biomass and fishing mortality levels.

Table 3. Summary of the biological reference point option illustrating bins of measures associated with different combinations of stock conditions. B stands for biomass, F for fishing mortality rate and R for recruitment.

	F ≤ Fmsy	F > Fmsy
B >= 150% Btarget	R↑ R↓ B↑ liberal liberal B↓ default default **1**	R↑ R↓ MRIP ≤ RHL/ACL B↑ default restrictive B↓ restrictive restrictive MRIP > RHL/ACL B↑ B↓ restrictive & re-evaluate measures **4**
Btarget ≤ B < 150% Btarget	R↑ R↓ B↑ liberal liberal B↓ default default **2**	R↑ R↓ MRIP ≤ RHL/ACL B↑ default restrictive B↓ restrictive restrictive MRIP > RHL/ACL B↑ B↓ restrictive & re-evaluate measures **5**
Bthreshold ≤ B < Btarget	R↑ R↓ B↑ default restrictive B↓ restrictive restrictive **3**	R↑ R↓ MRIP ≤ RHL/ACL B↑ default restrictive B↓ restrictive restrictive MRIP > RHL/ACL B↑ B↓ restrictive & re-evaluate measures **6**
B < Bthreshold	**MOST RESTRICTIVE/REBUILDING PLAN** **7**	

Accountability Measures under the Biological Reference Point Approach

Background information on AMs is provided in section 3.1 on page 16. Under the Biological Reference Point approach, measures are set based on a variety of factors such that they are more restrictive when stock status is poor and more liberal when stock status is healthy. Each bin has two sets of measures: a default set and either a more liberal or more restrictive set of measures. The measures for all bins will be regularly reviewed to ensure that they remain appropriate and prevent overfishing. These aspects of this approach can be considered proactive AMs.

The Biological Reference Point option is unique in that it includes reactive AMs built into the bins to respond to declining stock status (i.e., more restrictive measures implemented when biomass is below the target or F exceeds F_{MSY} and biomass trend and/or recruitment show negative signs or recreational overages have occurred; Bins 3-6). Therefore, no additional reactive AMs are needed under this approach.

Option E. Biomass Based Matrix Approach

This option would define six bins of recreational measures based on two factors: biomass compared to the target level (B/B_{MSY}) and the most recent trend in biomass. Bin 1 represents the optimal conditions, while Bin 6 represents the worst conditions.

Definitions:

- Abundant = Stock is at least 150% of the target level (B_{MSY})
- Healthy = Stock is above the target, but less than 150% of the target
- Below Target = Stock is below the target, but above the threshold (the threshold is half of the target and defines an overfished condition)
- Overfished = The stock is below the threshold
- Biomass trend would be defined as stable, increasing, or decreasing based on the methods described in Appendix 3.

When biomass exceeds 150% of the target level, regardless of the biomass trend, Bin 1 measures are selected. This is aimed at providing an opportunity to keep recreational management measures aligned with stock status, which in this case, is significantly above the target. When a stock is fished at F_{MSY} it is expected that stock size will decrease towards the biomass target unless above average recruitment events occur. Thus, it is not necessarily a negative sign if the stock at such high biomass levels experiences a declining trend.

Measures associated with each of the six bins would aim to achieve a target level of harvest, catch, or fishing mortality, depending on the option selected from section 3.2. The measures in each bin would be anticipated to produce a range of possible harvest, catch, or fishing mortality, given uncertainty and variability in the data. Considerations related to confidence intervals and other statistical metrics and models could be used to define the measures associated with each bin.

Although placement in Bins 1-6 would be based on a combination of B/B_{MSY} and biomass trend, the management measures associated with each bin could be defined based on six categories of biomass and the target level of harvest, catch, or fishing mortality deemed appropriate for that biomass level. The following biomass levels are provided as examples which may be further refined. These examples were constructed such that more risk is allowed when stock status is good compared to when stock status is poor.

- **Bin 1** (biomass greater than or equal to 150% of target level or biomass above target but less than 150% of target with increasing trend): measures are based on biomass that is 150% of the target level.
- **Bin 2** (biomass above the target level but less than 150% of the target with stable or decreasing trend): measures based on biomass that is at the target level.

- **Bin 3** (biomass between the target and threshold and increasing trend): measures based on biomass that is 75% of the target level.
- **Bin 4** (biomass between the target and threshold and stable or decreasing trend): measures based on biomass that is 60% of the target level.
- **Bin 5** (biomass below the threshold and increasing trend): measures based on biomass that is 40% of the target level.
- **Bin 6** (biomass below the threshold and stable or decreasing trend): measures based on biomass that is 20% of the target level.

Table 4. Recreational management measure matrix under the Biomass Based Matrix approach.

Biomass Level	Biomass Trend		
	Increasing	Stable	Decreasing
Abundant At least 150% of target	Bin 1		
Healthy Above target, but less than 150% of target	Bin 1	Bin 2	
Below Target but above threshold	Bin 3	Bin 4	
Overfished Below threshold	Bin 5	Bin 6	

Sub-Options for Accountability Measures Under the Biomass Based Matrix *– This section was updated in May 2022, as shown in tracked changes below*

Background information on AMs is provided in section 3.1 on page 16. For both sub-options below, measures are set based on a variety of factors such that they are more restrictive when stock status is poor and more liberal when stock status is healthy. The measures for all bins will be regularly reviewed to ensure that they remain appropriate and prevent overfishing. These aspects of this approach can be considered proactive AMs.

Sub-Option E-1: Reactive AMs Similar to Current AMs

As under this sub-option, ACL overages would be 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) for summer flounder, scup, and black sea bass. For bluefish, this would be a single-year comparison. If ~~average catch exceeds the average~~this comparison shows an ACL overage, then the appropriate AM is determined based on the following criteria:

1. If the stock is overfished ($B < ½ B_{MSY}$), under a rebuilding plan, or the stock status is unknown:

a. The most restrictive measures (Bin 6) would be implemented. These may be temporary measures until replaced by measures required by a rebuilding plan, which can take up to two years to implement.

b. If the most restrictive measures were already in place or are otherwise expected to continue to result in overages, then those measures must be modified for the upcoming fishing year such that they are reasonably expected to prevent future overages.

2. If biomass is above the threshold, but below the target ($½ B_{MSY} < B < B_{MSY}$), and the stock is not under a rebuilding plan:

a. If only the recreational ACL has been exceeded, then the stock would remain in its current bin, but the measures associated with that bin and all other bins, will be re-evaluated with the goal of preventing future ACL overages.

b. If the ABC or F_{MSY} (as determined through section 3.4) is exceeded in addition to the recreational ACL, and the stock has not already moved to a more restrictive bin due to a decrease in biomass, then measures associated with the next more restrictive bin would be implemented. In addition, measures in all bins would be re-evaluated and revised as appropriate. If the stock moves to a more restrictive bin based on a decrease in biomass, then an additional AM is not needed as the negative impacts on stock status have already been accounted for in the movement to the more restrictive bin.

3. If biomass is above the target ($B > B_{MSY}$):

The management measures associated with all bins will be adjusted, taking into account the performance of the measures and the conditions that precipitated the overage.

The bluefish regulations outline additional considerations for transfers in future years when a transfer between the commercial and recreational sectors was determined to have contributed to the ACL overage which triggered the AM.

Sub-Option E-2: Reactive AMs with a Trigger Based on Overfishing Status to Evaluate Measures

Under this sub-option, if overfishing is occurring (F is greater than F_{MSY}), and the recreational dead catch to recreational ACL comparison shows an overage, even if a change between bins was not triggered through an updated comparison of the Biomass

Based Matrix metrics as described above, the management measures for all bins will be re-evaluated and modified as needed to appropriately constrain recreational catch and end overfishing.

3.2 Target Metric for Setting Measures

The options in this section define the target metric which would be used when setting measures appropriate for the set of stock conditions that define the bin under options C-E in section 3.1. The options in section 3.2 do not apply if either options A or B in section 3.1 are selected. While the PDT/FMAT has not come to a consensus on which method was preferable, they did agree that if option C is selected, a secondary option should also be selected if the primary option cannot be calculated for any reason.

Option A. Recreational Harvest Limit

Under this option, the measures associated with each bin in options C-E under section 3.1 would aim to achieve but not exceed a target level of harvest which is informed by the RHL. Options C-E in section 3.1 use a binned approach to setting recreational management measures, with each bin representing a range of stock conditions. For this reason, the target level of harvest for each bin may not always be equivalent to the RHL under the no action alternative as a range of RHLs could fall under the same bin.

The RHL is calculated by removing projected dead discards from the Recreational ACL. Both the RHL and ACL are based on stock assessment projections, considerations related to scientific uncertainty, and commercial/recreational allocations. The RHLs can also be adjusted to account for management uncertainty.

Option B. Annual Catch Limit

Under this option, the measures associated with each bin in options C-E under section 3.1 would aim to achieve but not exceed a target level of dead catch (i.e., harvest and dead discards) which is informed by the recreational ACL. Options C-E in section 3.1 use a binned approach to setting recreational management measures, with each bin representing a range of stock conditions. For this reason, the target level of catch for each bin may not always be equivalent to the recreational ACL under the no action alternative as a range of ACLs could fall under the same bin.

The ACL is based on stock assessment projections, considerations related to scientific uncertainty, and commercial/recreational allocations.

Option C. Recreational Fishing Mortality Target

Under this option, the measures associated with each bin in options C-E under section 3.1 would aim to achieve but not exceed a target level of fishing mortality (F) for the recreational fishery. It remains to be determined how a recreational fishing mortality

target would be calculated. The stock assessments for each species calculate a fishing mortality reference point (F_{MSY}) for the commercial and recreational fisheries combined. Overfishing occurs at the stock level when fishing mortality exceeds this reference point. There are no fishing mortality reference points specific to the recreational fisheries. Furthermore, although the current stock assessment models for summer flounder, scup, and bluefish generate estimates of recreational fishing mortality, the current stock assessment model for black sea bass does not model the recreational fishery separately from the commercial fishery. Therefore, unless the model structure changes, it would not be possible to generate a fishing mortality estimate for black sea bass to compare against a recreational fishing mortality target. For these reasons, if this sub-option is selected as preferred by the Policy Board and Council, a secondarily preferred sub-option may also be selected for use in the event that a recreational fishery F target or F estimate cannot be generated.

3.3 Conservation Equivalency Options

The options in this section consider how the Commission's conservation equivalency policy would apply to the management options listed under section 3.1. The options in this section may only be considered if a harvest control rule management option other than Option A (No Action) in section 3.1 is selected.

Option A. No Action (States Retain Ability to Propose Conservation Equivalent Measures)

This option maintains the ability for states to submit proposals for alternative recreational management measures that are expected to achieve an equivalent level of recreational harvest, catch, or F (as determined by the sub-options in section 3.2). If a state submits a proposal outside of an implementation plan process, it must provide the proposal two months in advance of the next Board meeting to allow committees sufficient time to review the proposal and to allow states to respond to any requests for additional data or analyses. Further details describing the process and procedures can be found in the Commission's conservation equivalency policy noted above.

Option B. Regional Conservation Equivalency

This option allows for regions, as defined by the pre-determined species regions in Appendix 4, to submit proposals for alternative recreational management measures which are expected to achieve an equivalent level of recreational harvest, catch, or fishing mortality (depending on the option chosen from section 3.2) as the pre-defined measures of the bin. If a region is submitting a proposal, it must provide the proposal two months in advance of the next Board meeting to allow committees sufficient time to review the proposal and to allow the regions to respond to any requests for additional data or analyses.

Option C. Conservation Equivalency is Disallowed

Under this option, conservation equivalency under the Commission process will not be permitted for any of the four species on a state or regional level. This would reduce the flexibility afforded to states/regions compared to the previous two options, but would help achieve the goals of stability and predictability in measures. Several of the options proposed in this document have mechanisms in place to allow for the revision of management measures at different bins if they are not working as intended.

3.4 Accountability Measures Comparisons

The options in this section consider a change to one component of the reactive AMs under options A, B, C-1, and E-1 in section 3.1. Specifically, they address situations when a reactive AM has been triggered and biomass is above the threshold but below the target level. All other components of the AMs are summarized along with options A-E in section 3.1. These changes are only considered for the recreational AMs. No changes to the commercial AMs are considered through this action. Regardless of option chosen, AMs should be regularly revaluated following the provisions of the MSA.

Option A. Catch compared to the ABC

Under this sub-option, when a reactive AM has been triggered by a recreational ACL overage and the most recent biomass estimate is between the target and the threshold, catch relative to the ABC would also be considered. The response to the overage would be stricter if the ABC was also exceeded (e.g., a payback would be required or the stock would be placed in a more restrictive bin, depending on the option). If only the recreational ACL was exceeded, the response to the overage would be less strict (e.g., measures would be revised but a payback would not be required or the stock would remain in its current bin, depending on the option).

Option B. Fishing mortality compared to an F threshold

This sub-option maintains ACL evaluations within the AMs, but rather than considering if the ABC was also exceeded (see previous section), consideration would be given to if the fishing mortality threshold (F_{MSY}) was also exceeded. The intent behind this option is that it considers if total fishery removals negatively impacted the stock based on the most recent information. For example, catch in a past year may have exceeded the recreational ACL, but a subsequent stock assessment update may indicate that the stock did not suffer notable negative impacts if the fishing mortality threshold was not exceeded. The most recent fishing mortality estimate considers more recent information than the information used to set a previous year's ACL. To set the ACL and ABC, projections must be made that make assumptions about how the fishery may perform. This approach using a fishing mortality comparison would look at data that represents what transpired in the fishery or stock during the time being evaluated, according to the most recent stock assessment. If regularly updated estimates of total

fishing mortality compared to the threshold are not available, then this comparison would default to the ABC comparison described above.

4.0 Compliance

TBD

5.0 Literature Cited

NEFSC. 2021a. Summer Flounder Management Track Assessment Report.

NEFSC. 2021b. Scup Management Track Assessment for 2021. Prepublication copies prepared for use by Fishery Management Council staff and SSC. Available at https://www.mafmc.org/ssc-meetings/2021/july21-23.

NEFSC. 2021c. Black Sea Bass Management Track Assessment for 2021. Prepublication copies prepared for use by Fishery Management Council staff and SSC. Available at https://www.mafmc.org/ssc-meetings/2021/july21-23.

NEFSC. 2021d. Atlantic Bluefish Management Track Assessment for 2021. Prepublication copies prepared for use by Fishery Management Council staff and SSC. Available at https://www.mafmc.org/ssc-meetings/2021/july21-23.

4.0 APPENDICES

Appendix 1. Comparison of Options and Current Stock Status

The following table summarizes metrics considered when setting recreational measures under each option in this Draft Addenda/Framework. Primary metrics determine in the appropriate bin (see section 3.1 for more details); secondary metrics are only used if, through the evaluation of the primary metrics, the stock stays in the current bin. Metrics considered through accountability measures may differ from those shown below. See section 3.1 for more details on the options.

Option	Metrics used to set measures					Measures are pre-determined	Expected number of sets pre-determined measures	Measures specified for 1 or 2 years
	Expected harvest*	Biomass compared to target level (B/B_{MSY})	Fishing mortality compared to threshold level (F/F_{MSY})	Recent recruitment	Biomass trend			
No action	Primary					No	N/A	1
Percent change	Primary	Primary				No	N/A	2
Fishery score	Primary**	Primary**	Primary**	Primary**		Yes	4	2
Biological reference point	Only when $F>F_{MSY}$	Primary	Primary	Secondary	Secondary	Yes	13	2
Biomass based matrix		Primary			Primary	Yes	6	2

*Expected harvest refers to expected harvest under status quo measures compared to the upcoming year(s)' RHL and could be based on past MRIP estimates, including consideration of confidence intervals for those estimates, or a model-based estimate of harvest, including considerations related to uncertainty in that estimate.

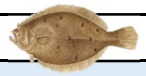
**As described in section 3.1-C, the fishery score metrics may not be weighted evenly. The Monitoring/Technical Committees will recommend the appropriate weight for each metric. These weights can be modified through the specifications process.

Appendix 2. Placement of Each Species in Each Option with Current Data

Option B: Percent Change Approach

As illustrated in the figure below, for summer flounder, the 2022-2023 RHL is within the CI of the 2019-2020 MRIP harvest estimates and the most recent B/B_{MSY} ratio is 0.85. Therefore, a 10% reduction would be needed under the Percent Change Approach.

For black sea bass and scup, the 2022-2023 RHL is below the CI of the 2019-2020 MRIP harvest estimates and the most recent B/B_{MSY} ratio exceeds 1.5. Therefore, depending on sub-option selected, either a 10% reduction would be needed or no change in measures would be made under the Percent Change Approach.

Row	Future RHL vs Harvest Estimate	$B/_{BMSY}$	Change in Harvest	
A	Future 2-year avg. RHL greater than upper bound of harvest estimate CI	> 1.5	Sub-Option B-1A: Liberalization percent equivalent to difference between harvest estimate and 2-year avg. RHL	Sub-Option B-1B: 40% Liberalization
		1 - 1.5	Sub-Option B-1A: Liberalization percent equivalent to difference between harvest estimate and 2-year avg. RHL	Sub-Option B-1B: 20% Liberalization
		< 1	Sub-Option B-2A: 10% Liberalization	Sub-Option B-2B: 0%
B	Future 2-YR avg. RHL within CI of harvest estimate	> 1.5	10% Liberalization	
		1-1.5	0%	
		< 1	 10% Reduction	
C	Future 2-YR avg. RHL less than lower bound of harvest estimate CI	> 1.5	Sub-Option B-2A: 10% Reduction 	Sub-Option B-2B: 0% 
		1-1.5	Sub-Option B-1A: Reduction percent equivalent to difference between harvest estimate and 2-year avg. RHL	Sub-Option B-1B: 20% Reduction
		< 1	Sub-Option B-1A: Reduction percent equivalent to difference between harvest estimate and 2-year avg. RHL	Sub-Option B-1B: 40% Reduction

Option C: Fishery Score Approach

The Monitoring/Technical Committees will recommend the appropriate weight for each metric within the fishery score approach. These weights can be modified through the specifications process. In this example the weighting for each metric was assigned as follows:

B/B_{MSY} = 40% F/F_{MSY} = 20% Recruitment = 20% Fishery Performance = 20%

Summer Flounder

Using the results of the 2021 management track assessment for summer flounder we calculated the current fishery score as follows, assuming the weighting described above:

- B/B_{MSY} = 47,397/55,217 = 0.85 (FS=3)
- F/F_{MSY} = 0.340/0.422 = 0.81 (FS=5)
- Recruitment Percentile: 81-100% (FS=5)
- Landings: 2019-2020 avg. RHL within CI (FS=3)

3(.4) +5(.2) + 5(.2) + 3(.2) = 3.8

Given a fishery score of 3.8, summer would be considered at medium risk with a moderate stock status and the corresponding management measures would be liberal.

Bin	Fishery Score	Stock Status and Fishery Performance Outlook	Measures
1	4-5	Good	Most Liberal
2	3-3.99	Moderate	Liberal
3	2-2.99	Poor	Restrictive
4	1-1.99	Very Poor	Most Restrictive

Scup

Using the results of the 2021 management track assessment for scup we calculated the current fishery score as follows, assuming the weighting described above:

- B/Bmsy=176,404/90,019 = 1.95 (FS=5)
- F/Fmsy = 0.136/0.200 = .68 (FS=5);
- Recruitment Percentile: <20% (FS= 1)
- Landings: 2019-2020 avg. RHL below lower bound of CI (FS=1)

5(.4) +5(.2) + 1(.2) + 1(.2) = 3.4

Given a fishery score of 3.4, scup would be considered at medium risk with a moderate stock status and the corresponding management measures would be liberal.

Bin	Fishery Score	Stock Status and Fishery Performance Outlook	Measures
1	4-5	Good	Most Liberal
2	3-3.99	Moderate	Liberal
3	2-2.99	Poor	Restrictive
4	1-1.99	Very Poor	Most Restrictive

Black Sea Bass

Using the results of the 2021 management track assessment for black sea bass we calculated the current fishery score as follows, assuming the weighting described above:

- B/Bmsy= 30,774/14,441 = 2.1 (FS=5)
- F/Fmsy =.5 (FS=5)
- Recruitment Percentile: 61-80% (FS= 4)
- Landings: 2019-2020 avg. RHL below lower bound of CI (FS=1)

5(.4) +5(.2) + 4(.2) + 1(.2) = 4

Given a fishery score of 4, black sea bass would be considered at low risk with a healthy stock status and the corresponding management measures would be the most liberal.

Bin	Fishery Score	Stock Status and Fishery Performance Outlook	Measures
1	4-5	Good	Most Liberal
2	3-3.99	Moderate	Liberal
3	2-2.99	Poor	Restrictive
4	1-1.99	Very Poor	Most Restrictive

Bluefish

Using the results of the 2021 management track assessment for bluefish we calculated the current fishery score as follows, assuming the weighting described above:

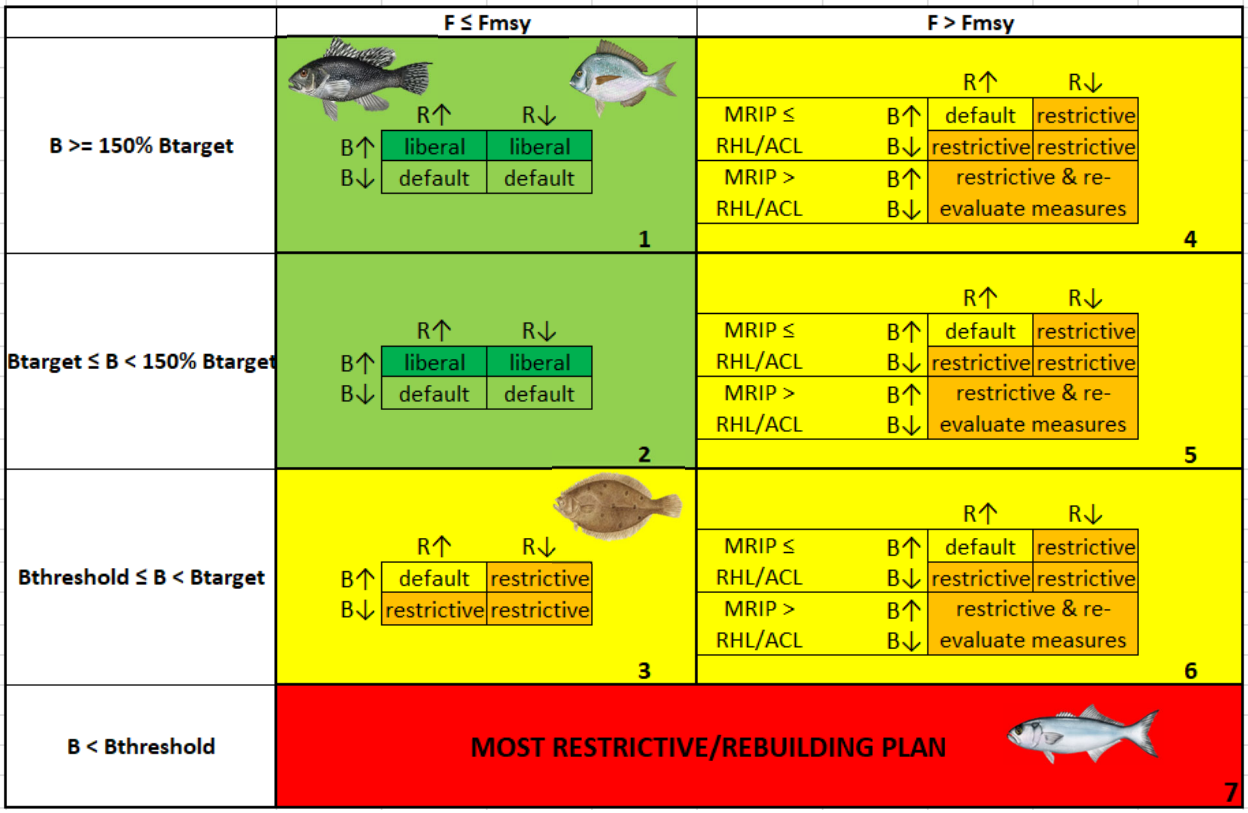
- B/Bmsy= 95,742 /201,729 = 0.47 (FS=1)
- F/Fmsy =.95 (FS=3)
- Recruitment Percentile: 41-60% (FS= 3)
- Landings: 2019-2020 avg. RHL below lower bound of CI (FS=1)

1(.4) +3(.2) + 3(.2) + 1(.2) = 1.8

Given a fishery score of 1.8, bluefish would be considered at the highest risk with a very poor stock status and the corresponding management measures would be the most restrictive.

Bin	Fishery Score	Stock Status and Fishery Performance Outlook	Measures
1	4-5	Good	Most Liberal
2	3-3.99	Moderate	Liberal
3	2-2.99	Poor	Restrictive
4	1-1.99	Very Poor	Most Restrictive

Option D: Biological Reference Point Approach



As illustrated in the figure above, under the Biological Reference Point option, each stock under consideration is shown in the respective bin based on the most recent stock assessment results (summarized under the fishery score alternative)

- Both scup and black sea bass would be in Bin 1, with the default measures. If the 2023 stock assessment update indicates that both recruitment and biomass have increasing trends with no change to biomass or fishing mortality, then measures would be liberalized.
- For summer flounder, the stock is placed in Bin 3. This bin indicates a low biomass without overfishing occurring, and measures would be the default measures of this bin. If in the 2023 stock assessment, biomass and fishing mortality show stable trends but either recruitment or biomass showed a decline, measures would be restricted. If biomass improves, then the stock will move from Bin 3 to Bin 2 – as long as overfishing isn't occurring.
- For bluefish, the stock is under a rebuilding plan and defaults to Bin 7. The stock will remain here until the Board/Council determine if can once again enter into the harvest control rule.

Option E: Biomass Based Matrix Approach

According to the most recent stock assessment information, both scup and black sea bass have biomass levels that are over 150% of the target with a decreasing biomass trend. This places them in Bin 1 under the Biomass Based Matrix Option. Summer flounder has a biomass below the target and an increasing biomass trend. Therefore, the stock is in Bin 3. Bluefish is in Bin 6 because it is in a rebuilding plan.

Stock Status	Biomass Trend		
	Increasing	Stable	Decreasing
Abundant At least 150% of target	Bin 1 		
Healthy Above target, but less than 150% of target	Bin 1	Bin 2	
Below Target but above threshold	Bin 3 	Bin 4	
Overfished Below threshold	Bin 5	Bin 6 	

Appendix 3. Determining Metrics for Each Option

Please note that the methodology for determining metrics for each option could be revised pending further PDT/FMAT and Board/Council discussion. These changes would only affect the calculation of metrics under each option, and would not impact the management framework for using the harvest control rule approaches.

Confidence Intervals for MRIP Comparison

For options that incorporate comparison of harvest to recent MRIP estimates, the FMAT/PDT recommends using an 80% confidence interval (CI) around the most recent two years of MRIP harvest estimates. An 80% CI balances concerns related to certainty (higher CI %) and precaution when reductions might be needed or economic opportunity when liberalizations could be allowed (lower CI %). As described in section 3.1, the intent of this CI is to serve as a proxy for expected future harvest under status quo measures. This proxy could be replaced by an alternative estimate and associated CI generated from a robust statistical methodology approved by the Monitoring/Technical Committees.

Option C: Fishery Score Approach

Determining Metric Values for the Fishery Score

The following section provides an example of how the metrics could be used to generate a fishery score value ranging from 1 to 5.

$$B/B_{MSY}(W_B)$$

Biomass from the most recent stock assessment would be given a value of 1-5 based on the following criteria, which are loosely based on other aspects of the management program (e.g., the Council's risk policy).

- 5: Biomass is equal to or greater than 150% of the target
- 4: Biomass is less than 150% of the target, and equal to or greater than the target
- 3: Biomass is below the target, and equal to or greater than 75% of the target
- 2: Biomass is below 75% of the target, and equal to or above the threshold (which is ½ the target and defines an overfished state)
- 1: Biomass is below the threshold

$$F/F_{MSY}(W_F)$$

Fishing mortality could be scored based on whether the most recent fishing mortality estimate is at, above, or below the threshold level. Only three increments were selected for fishing mortality as other aspects of the management program consider only

whether F is at, above, or below the target. This scoring methodology may be revised based on further analysis and additional stock assessment considerations.[8]

- 5: F/F_{MSY} is at least 5% less than 1
- 3: F/F_{MSY} within 5% of 1
- 1: F/F_{MSY} is at least 5% greater than 1

Recruitment(W_R)

To determine the recruitment metric, the most recent three year average estimate of recruitment will be compared to the 20th, 40th, 60th, 80th, and 100th percentiles of the time series of recruitment used in stock projections. This percentile categorization of the relative strength of an incoming year class was deemed more informative than measuring trends in recruitment, especially given the highly variable nature of recruitment from year to year. Assessing where recruitment fell in the percentile distribution was determined a more appropriate measure of recruitment's impact on future levels of biomass.

- 5: 3 year average R in the 81-100 percentile
- 4: 3 year average R in the 61-80 percentile
- 3: 3 year average R in the 41-60 percentile
- 2: 3 year average R in the 21-40 percentile
- 1: 3 year average R is in the 0-20 percentile

Fishery performance (W_{FP})

Fishery performance is evaluated by comparing the confidence interval (CI) defined based on the method described on page 44. The score is determined by where the average RHL appears in relation to the CI.[9] The following three categories are used for this metric:

[8] An alternative scoring method which may be further developed by the FMAT/PDT is to consider the probability that the terminal year fishing mortality estimate (F) from the most recent stock assessment exceeds the threshold level defining overfishing (F_{MSY}). The following four categories are provided as examples.

- 5: 0-24% probability that terminal year F exceeds F_{MSY}
- 4: 25-49% probability that terminal year F exceeds F_{MSY}
- 2: 50-74% probability that terminal year F exceeds F_{MSY}
- 1: 75-100% probability that terminal year F exceeds F_{MSY}

[9] When developing a CI from two years of MRIP data, the PDT/FMAT recommends the use of a joint distribution 80% confidence interval that takes into consideration the PSE of each individual years' MRIP estimate and the variability of the estimates between years. This recommendation is based on an analysis of several years of MRIP

- 5: 2-yr avg. RHL above upper bound of CI
- 3: 2-yr avg. RHL within CI
- 1: 2-yr avg. RHL below lower bound of CI

Option D and E: Biological Reference Point and Biomass Based Matrix

Evaluating B/Bmsy and F/Fmsy

Fishing Mortality (F)

- F ≤ Fmsy - *Fishing mortality is less than or equal to the target.*
- F > Fmsy - *Fishing mortality is greater than the target (overfishing is occurring)*

Biomass (B)

- 150% B_{MSY} target ≤ B - *Biomass is greater than or equal to 1.5x the target*
- B_{MSY} target ≤ B < 150%B_{MSY} target - *Biomass is greater than or equal to the target but less than 1.5x the target*
- B_{MSY} threshold ≤ B < B_{MSY} target - *Biomass is less than the target but greater than or equal to the threshold*
- B < B_{MSY} threshold – *Biomass is less than the threshold (Overfished), a management response (Rebuilding Plan) is required under the MSA. See Accountability Measures for more information.*

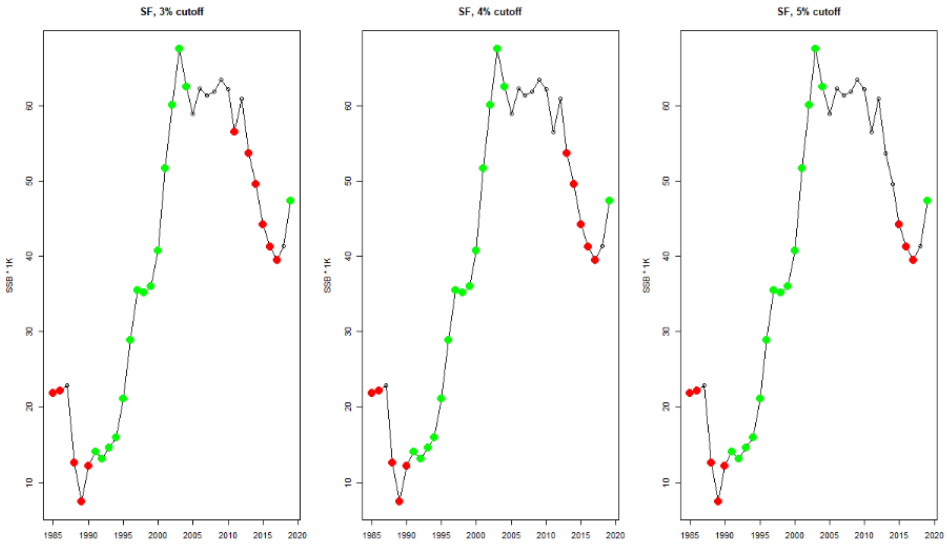
Evaluating Biomass Trends – This Section was revised March 2022

Evaluating biomass trends can be accomplished using a variety of statistical methods. The PDT/FMAT is working on a number of potential options.

One possible approach would use the average percent change in biomass (or spawning stock biomass) from the three most recent years in the assessment. The average percent change would then be compared to a pre-defined breakpoint. In the figure below we have tested three potential breakpoints 3, 4, and 5 percent. For a 3 percent breakpoint a biomass trend would be considered stable if the percent change was between -3 percent and 3 percent change; considered increasing if the percent change was greater than 3 percent; and, decreasing if the percent change was greater than -3 percent. The number of years in the average, and the breakpoint selected will influence the resulting trend. For the purposes of the biological reference point approach (option D), which only has two categories for biomass trend, the stable and increasing biomass trends would both be considered a positive biomass trend and the decreasing biomass trend would be considered a negative biomass trend.

data for each species. The use of MRIP data in this context is intended as a proxy for expected future harvest under status quo measures. This may be replaced with statistical modelling approaches for predicting harvest, with associated CIs, if such approaches are available in the future.

Summer flounder Trend Sensitivity Analysis



An alternative approach to derive a biomass trend would combine survey indices into a biomass index that could be used to determine the trend. The approach was designed to combine multiple indices and generate a single value to use as a catch-multiplier to provide catch advice in plan-B assessment approaches. We could use a similar approach to combine information from multiple indices and get a single quantitative metric to judge biomass trends. The following steps would be followed: 1) Create an average biomass index from one or more surveys; 2) apply a LOESS smooth to average; 3) fit log linear model to the most recent three years of smoothed data; and 4) transform slope back to normal scale to get a value. This approach may also be considered a back-up approach if an analytical model with biomass estimates is unavailable.

Recruitment - This Section was revised March 2022

Recruitment will be evaluated based on the most recent three-year average recruitment estimate compared to the median of the time series of recruitment used in stock projections. "High" recruitment will be considered a three-year average that is equal to or greater than the median and "Low" recruitment will be considered a three-year average that is below the median.

Fishery Performance - This Section was revised March 2022

This secondary metric comes into play only when a stock remains in its current bin for a second specifications cycle and overfishing is occurring ($F > F_{MSY}$). This metric considers whether or not the current measures resulted in catch and/or harvest greater than the specified limit from the previous specifications cycle. Specifically, a two-year average of catch or harvest from the previous specifications cycle will be compared to the two-year average of the ACL or RHL. A CI around the catch and/or harvest estimates can be considered when evaluating if an overage occurred.

Appendix 4: Regions for Each Stock

Under Addendum XXXII, summer flounder and black sea bass were divided into the following regions:

Summer Flounder: Section 3.1.1

Measures will be developed using a six-region approach, where the regions are defined as: 1) Massachusetts, 2) Rhode Island, 3) Connecticut-New York, 4) New Jersey, 5) Delaware-Virginia, and 6) North Carolina.

Black Sea Bass: Section 3.2.1

Measures will be developed using a three-region approach, where the regions are defined as Massachusetts through New York; New Jersey; and Delaware through North Carolina (north of Cape Hatteras).

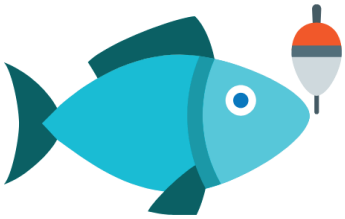
Regions have not been established for management of the recreational scup and bluefish fisheries. The Board and Council can develop regions for these species during final action on this addenda or through a separate action.

Supplemental Infographics to the Draft Addenda/Framework on the Harvest Control Rule

This is a supplement to the Quick Reference Guide for the Draft Addenda/Framework on the Harvest Control Rule. Please refer to the Quick Reference Guide (Section 3.1) when viewing these infographics. The Draft Addenda/Framework can be found at http://www.asmfc.org/files/PublicInput/HCR_DraftAddenda_PublicComment_March2022.pdf.

Current Process

This is the current process used to set recreational measures for summer flounder, scup, black sea bass and bluefish.



New Harvest Limits are Set

Recreational harvest limits (RHLs) are set based on the most recent stock assessment, considerations about scientific and management uncertainty, commercial & recreational allocations, and assumptions about discards in upcoming years.

Harvest Data Reviewed

Harvest estimates from recent years are used to generate an estimate of expected harvest in the upcoming year under status quo measures.

Determine Changes Needed

If the estimate of expected harvest is similar to the upcoming RHL, then no change in measures is needed. If it is higher or lower than the RHL, then a percentage liberalization or reduction in harvest is agreed upon to allow harvest to meet but not exceed the upcoming RHL.

Set Management Measures

State and federal waters management measures are set based on the agreed upon percentage liberalization or decrease in harvest, or no change.

Percent Change Option

1 → RHL compared to MRIP estimate

Determine if the RHL for the upcoming management period is above, below, or within the confidence interval of the most recent MRIP time-series estimates.

2 → Compare biomass to target level

Compare the biomass estimate from the stock assessment to the biomass target level. Biomass categories are as follows:

- 150% above biomass target
- Between 100% and 150% biomass target
- Below biomass target

3 → Find percent change in measures

The RHL and biomass comparison determines the appropriate percent change in harvest needed (if any).

4 → Set Management Measures

Management measures are either liberalized, restricted, or maintained at status quo to acheive the percent change determined through step 3.

Fishery Score Option

STEP 1

Stock Assessment Results

An updated stock assessment is completed and approved for management use.

STEP 2

Calculate Fishery Score Factors

Fishing mortality, biomass, recruitment, and fishery performance metrics are drawn from the stock assessment and recent MRIP estimates.

STEP 3

Use Formula to Calculate Fishery Score

Fishery score factors are entered in the Fishery score formula to produce a value ranging from 1 to 5. On this scale, 1 is the lowest possible score and 5 is the highest possible score.

STEP 4

Determine Management Step Based on Fishery Score

Based on the calculated fishery score, the stock is placed into one of four bins. Each bin has a pre-determined set of management measures (see below)

STEP 5

Determine Management Measures

Pre-determined management measures from the relevant bin are implemented.

Fishery Score bins and the associated stock status, fishery performance outlook, and measures that are associated with each bin.

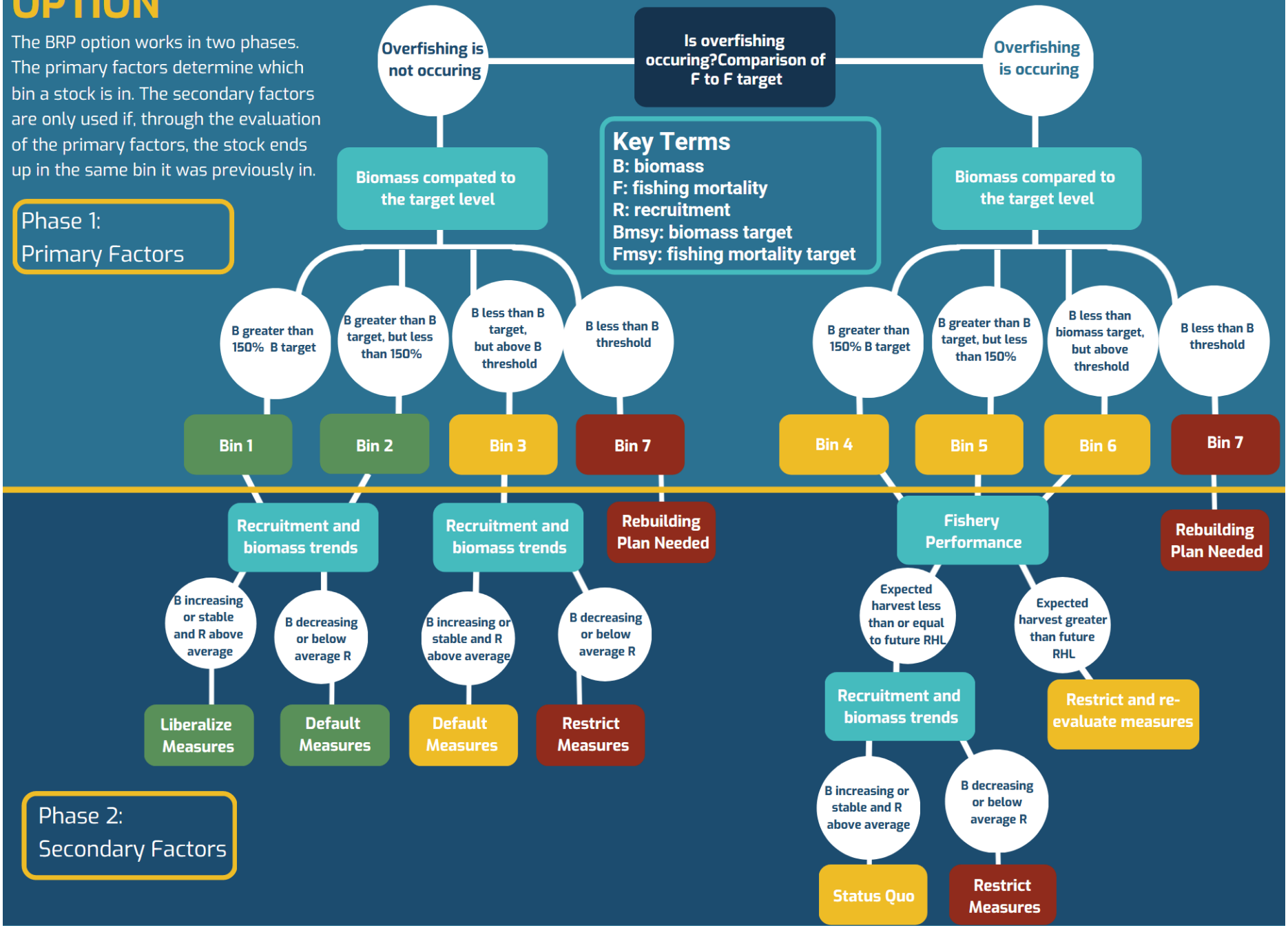
Bin	Fishery Score	Stock Status and Fishery Performance Outlook	Measures
1	4-5	Good	Most Liberal
2	3-3.99	Moderate	Liberal
3	2-2.99	Poor	Restrictive
4	1-1.99	Very Poor	Most Restrictive

BIOLOGICAL REFERENCE POINT OPTION

The BRP option works in two phases. The primary factors determine which bin a stock is in. The secondary factors are only used if, through the evaluation of the primary factors, the stock ends up in the same bin it was previously in.

Phase 1: Primary Factors

Phase 2: Secondary Factors



Biomass Based Matrix Approach

Stock Status is determined

Based on the relationship of biomass to the target level, biomass is categorized as either very high, healthy, below target, or overfished.

Biomass Trend Evaluated

A stock's biomass trend is considered increasing, stable, or decreasing.

Bin Determined

Based on biomass level and biomass trend, stock is placed in one of 6 bins: Bin 1 (optimal conditions) and Bin 6 (worst conditions).

Determine Management Measures

Pre-determined measures from the determined bin are implemented. If the bin is the same as in the prior years, measures remain status quo.

Recreational management measures matrix under the Biomass Based Matrix Approach

Stock Size (i.e., biomass compared to target level)	Trend in stock size		
	Increasing	Stable	Decreasing
Very High: At least 150% of target stock size	Bin 1		
High: Above the target, but below 150% target stock size	Bin 1	Bin 2	
Low: Below the target stock size, but more than 50% of the target stock size	Bin 3	Bin 4	
Overfished (Too Low): Less than 50% of the target stock size	Bin 5	Bin 6	

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
GREATER ATLANTIC REGIONAL FISHERIES OFFICE
55 Great Republic Drive
Gloucester, MA 01930

April 15, 2022

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

Dear Mike,

On April 15, 2022, the proposed rule for the 2022 summer flounder, scup, and black sea bass recreational management measures filed. The development of this action was challenging and I appreciate the hard work of Council and Commission staff throughout the process.

Based on the recommendations of the Council and Board, the rule proposes to approve the use of conservation equivalency for summer flounder and black sea bass. State or regional measures can be liberalized to achieve a 16.5-percent harvest increase overall for summer flounder. For black sea bass, state or regional conservation equivalency measures must achieve a 20.7-percent harvest reduction.

For scup, in addition to the 1-inch minimum size increase proposed by the Council and Board, we are proposing a closure of the Federal recreational scup fishery. The action proposed by the Council and Board would not sufficiently reduce scup harvest as required by the Fishery Management Plan (FMP). Because the Council and Board failed to propose measures that meet the FMP requirements, we are required by the regulations at 50 CFR 648.122(b) to propose additional measures to ensure the scup recreational annual catch limit is not exceeded.

Throughout the development of the 2022 recreational measures, we have received requests to maintain status quo measures for scup and black sea bass. The regulations do not allow us to do that. These regulations implement the recreational management measure setting process developed by the Council in conjunction with the Board. We are required to act consistent with the regulations, all of which were deemed necessary and appropriate by the Council, that implement previously approved FMP actions. Absent Secretarial action, we cannot change the regulations until the Council and Board take additional action to modify the FMP's underlying requirements related to the setting of recreational management measures.

The allowance of status quo measures in 2020 and 2021 has been cited as rationale for continued status quo measures. Those years, during which we did allow for status quo measures, were unique circumstances, a planned temporary allowance of status quo measures in accordance with the MRIP transition, and an allowance of continued status quo in the face of a global pandemic that accounted for limited recreational catch data in 2020. In both of those circumstances, and leading up to this year's decision, I have been very clear that status quo was a temporary solution and that the Council and Board needed to take action to resolve issues with recreational fisheries moving forward. We have been clear and consistent in telling the Board and Council that, in the absence of action to change the way the recreational fishery is managed, we would need to implement measures consistent with the regulations in 2022.

The issues with recreational fisheries management are not new. In 2018, it became clear that the revised MRIP numbers, particularly for these species, would present significant challenges for the future of recreational management. In April 2018, the Council and Board received a presentation on the Draft Strategic Plan on Black Sea Bass Recreational Reform. In response, a Steering Committee was formed and a white paper was developed. However, it was not until October 2020 that the Council and the Commission's Policy Board agreed to initiate a joint framework/addendum and a joint amendment to address several recreational issues. Despite initiation of these actions in October, limited progress was made until the spring of 2021. We have consistently urged the Council and Board to prioritize Recreational Reform in the hope that we would have had a new system in place for 2022. We are disappointed that this did not happen. Now, the earliest we can expect final action is in June 2022. If the Council and Board do not take final action in June, I fear we will not have a new system in place for 2023 either.

I am urging the Council and Board to take final action on the Harvest Control Framework in June. The Council and Board have had nearly four years to address the challenges presented by the revised MRIP numbers; we cannot continue to allow this issue to go unresolved.

Sincerely,

Michael Pentony
Regional Administrator

cc: B. Beal; C. Moore; J. Beaty; K. Coutre; K. Dancy

May 6, 2022

The Honorable Gina Raimondo
Secretary of Commerce
U.S. Department of Commerce
1401 Constitution Avenue NW
Washington, DC 20230

Dear Secretary Raimondo:

We the undersigned, represent heads of the U.S. East Coast Natural Resources/Fishery management agencies (NH, MA, RI, CT, NY, NJ, DE, MD, PRFC, and VA) and are writing in opposition to new restrictions being imposed upon the recreational black sea bass and scup fisheries, as detailed in NOAA Fisheries proposed rule released on April 18, 2022.

We very much appreciate the flexibility and discretion that NOAA has shown in the last few years in response to changing catch estimates, slow-moving and complicated management, and the COVID-19 pandemic. Flexibility is needed in the proposed rule, and we question the imposition of these unnecessary fishery restrictions on healthy, abundant stocks when a comprehensive solution in the form of the Harvest Control Rule (HCR) Addendum is less than six months away.

The Magnuson-Stevens Fishery Conservation and Management Act (MSA) mandates that we prevent overfishing using the best scientific information available. The 2021 assessments conducted for black sea bass and scup found that in 2019 the stocks were approximately 200% of their biomass targets and that overfishing was not occurring for either species. These results are the best available science and show that joint management of these two stocks by the MAFMC and ASMFC is fulfilling the requirements of the MSA. The recreational fishery cuts proposed by NOAA under Part 648 of the Code of Federal Regulations, requiring accountability measures for both fisheries, are based upon significantly less data and much cruder consideration of estimate uncertainties than the most recent assessment results.

The last decade of fisheries management for these species has been difficult, complicated by explosive biomass growth, unprecedented availability to anglers, catch limits not informed by a successful stock assessment, and/or the transformation of Marine Recreational Information Program (MRIP) effort estimation. While the stocks grew to over twice the biomass target, black

sea bass recreational regulations grew more restrictive yet failed to control landings and commercial scup fisheries have not fully utilized their quota. As NOAA, MAFMC, and ASMFC struggle to manage fisheries on extremely abundant stocks using new MRIP estimates, anglers and the businesses that depend upon them have suffered.

Recreational catch estimates have been problematic for decades. Recent significant changes in estimates of effort and catch have still not been fully assimilated into management. The HCR Addendum/Framework, which will come before the ASMFC and MAFMC for approval in June of this year with implementation in 2023, seeks to base management decisions upon assessment outputs and not MRIP estimates alone. The HCR process could provide a solution for 2022 management, but the federal implementation process prevents us from using it until 2023.

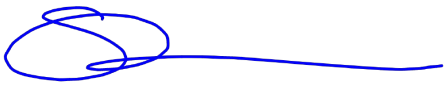
Given the abundance of both stocks and the solution on the horizon in the form of the HCR, there is ample reason for NOAA to continue to exercise management discretion and flexibility and not impose the restrictions in their proposed rule. This is an opportunity to move recreational fisheries management forward, without first taking unnecessary steps back. Prior to the pandemic in 2019, almost 2.8 million anglers from the north and mid-Atlantic states spent over 2 billion dollars on saltwater recreational fishing and took 3.2 million and 2.4 million trips targeting scup and black sea bass, respectively. These millions of anglers and the industries that surround them are vital to the coastal community economies emerging from the COVID pandemic. It is illogical to impose these reductions now when necessary change is so near. Therefore, we are requesting your intervention to maintain status quo measures for scup and black sea bass for 2022.

We thank you for your consideration and attention to this matter and we look forward to your prompt response.

Respectfully,

U.S. East Coast Natural Resources Commissioners/Directors

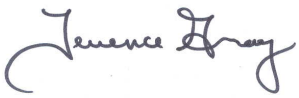
Basil Seggos, Commissioner
New York State Department of
Environmental Conservation



Shawn LaTourette, Commissioner
New Jersey Department of Environmental
Protection

Katie Scharf Dykes, Commissioner
Connecticut Department of
Environment & Energy

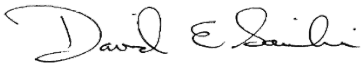
Ron Amidon, Commissioner
Massachusetts Department of
Fish and Game



Terrence Gray, Acting Director
Rhode Island Department of
Environmental Management

Scott Mason, Executive Director,
New Hampshire Fish and Game
Department

Michael Luisi, Acting Director
Fisheries and Boating Services
Maryland Department of
Natural Resources
Chairman - MAFMC



David Saveikis, Director
Delaware Division of Fish & Wildlife

Patrick Geer, Chief of Fisheries
Management
Virginia Marine Resources Commission

Marty Gary
Executive Director
Potomac River Fisheries Commission

cc. Rick Spinrad,
Janet Coit
Mike Pentony

May 9, 2022

Ms. Janet Coit
Assistant Administrator, NOAA Fisheries
1315 East-West Highway
Silver Spring, MD 20910
Via email: janet.coit@noaa.gov

Dear Ms. Coit,

Please consider these comments in response to the April 18, 2022 Proposed Rule on 2022 Recreational Management Measures for the Summer Flounder, Scup, and Black Sea Bass Fisheries; particularly the proposed closure of the recreational scup fishery in Federal waters.

Recreational scup and black sea bass management has been particularly challenging over the last decade as both stocks have grown to over twice their biomass targets while recreational catch and effort estimates have changed significantly. For scup, the changes made to the Marine Recreational Information Program (MRIP) effort estimation significantly changed our understanding of the magnitude of the recreational fishery by more than doubling catch, instantly creating a management crisis in an otherwise healthy stock. While assessments and some aspects of the specifications process have incorporated these new estimates, many other aspects of management remain challenging due to these changes. We believe the proposed closure of the recreational scup fishery in Federal waters is unnecessary for the short and long-term health of the stock, ineffective and inefficient for controlling recreational harvest and fishing mortality in a meaningful way, and extremely damaging to the public's regard for marine fisheries management by NOAA Fisheries, the Mid-Atlantic Fishery Management Council (MAFMC), and the Atlantic States Marine Fisheries Commission (ASMFC).

There are two separate fishery management plan changes moving through the interstate and Federal process that will improve our ability to manage for the sustainable use of the scup fishery. Sector allocations were updated in the Commercial/Recreational Allocation Amendment to reflect the increased recreational take resulting from the change in MRIP methodologies, which was approved by the MAFMC and ASMFC in December 2021. This Amendment will increase the recreational scup fishery catch-based allocation from 22% of the Acceptable Biological Catch (ABC) to 35%. The second management action underway is referred to as the Harvest Control Rule Framework/Addendum (HCR), which is an important component of the Recreational Reform Initiative. This action seeks to better manage recreational fisheries by appropriately accounting for data uncertainties and incorporating assessment-based metrics into the decision-making process instead of relying almost solely upon past harvest performance (MRIP) comparisons with future recreational harvest limits (RHLs). The HCR could potentially be approved at the joint MAFMC/ASMFC meeting in June of 2022. Unfortunately, neither the revised sector allocations nor the HCR will be in place for the 2022 recreational scup fishing season.

The 2021 Management Track Assessment (data through 2019) for scup determined that the stock was not overfished, that overfishing was not occurring, and that the stock biomass was 1.96 times the biomass target. Yet in its proposed rule, NOAA Fisheries notes that a 56% reduction of the recreational scup fishery is required because harvest projections, based upon MRIP estimates, exceed the 2022 RHL of 6.08 million pounds. This purported need to reduce recreational harvest to avoid overfishing fails to incorporate the consistent underutilization of quota by the commercial sector. The commercial fishery has repeatedly underutilized its allocation, leaving an average of 34% of the coastwide quota over the last 6 years. Preliminary landings from 2021 are 12.93 million pounds of a 20.50 million pounds quota. The 2022 commercial scup quota is 20.38 million pounds and 2022 harvest-to-date during the Winter 1 Quota Period has so far underperformed relative to this time last year. If 2022 commercial landings do manage to match the 2021 landings, that would result in a 7.4 million pound commercial quota underage that would nearly cover the projected recreational overage of 7.8 million pounds under status quo recreational regulations.

Notably, of course, status quo recreational regulations for 2022 are not on the table (with or without NOAA Fisheries' proposed rule). The MAFMC and the ASMFC's approved coastwide 1-inch minimum size increase is projected to reduce recreational harvest by 33%. Taking into account this recreational harvest reduction, recent patterns of commercial landings and projected discards (2018-2019 ratios landings:discards), total catch should remain below the ABC, preventing overfishing and fulfilling the requirements of the MSA without the unnecessary impacts to anglers and dependent small businesses that would be created by a Federal waters closure.

This was believed to be sufficient by the Technical Committee, the Monitoring Committee, the Council and the Commission, especially given pending changes to both sector allocations and general recreational management. If the Federal rule-making process was faster and the revised commercial/recreational allocations were in place for 2022, this year's RHL would have been considerably larger and the "required" reduction would have been much smaller. While the exact values are not currently known, there is an example in the Allocation Amendment of what the revised 35% recreational scup allocation could do for the 2023 RHL; it increases it from 5.41 million pounds to 9.06 million pounds. A similar increase of 67% applied to the 2022 specifications would have produced a 10.1 million pound RHL and depreciated the called-for reduction to roughly 27%. The proposed rule's calculation also does not recognize an analysis conducted by the ASMFC Technical Committee to identify and adjust outliers in the MRIP harvest data for scup, which we understand could further reduce the required reduction. As noted in the proposed rule, a similar analysis was conducted for the MRIP black sea bass harvest data, which dampened that species' recreational harvest reduction for 2022 from 28% to 20.7%.

It is true that the GARFO Regional Administrator stressed that the 1 inch minimum size adjustment would not be sufficient to address the RHL overage at the December 2021 Joint Meeting and on other occasions. However, the imposition of a Federal waters closure of the recreational scup fishery is not only unnecessary for the health of the stock but of highly questionable efficacy. According to the Proposed Rule, the closure would only account for an additional 6% harvest reduction, well short of its goal. The rule further acknowledges that the actual reduction will be less than 6% as anglers switch to targeting scup exclusively in state waters (where the majority of the fishery already occurs) and Federally permitted for-hire vessels drop their open access scup permits to do the same.

While the harvest reduction from a Federal waters closure is unlikely to be realized, the impact to anglers and for-hire operations will be an increase in inefficiency—more time, more fuel, more discards, and less profit (for small businesses). Scup are a very important component of bottom fishing in New England and the Mid-Atlantic, in particular given the relative scarcity of legal sized fluke and highly restrictive black sea bass limits. During many trips targeting mixed bottom fish, anglers would expect to catch scup, fluke and black sea bass as these species often utilize the same bottom. The proposed rule would require anglers pursuing other species in Federal waters to discard all scup caught while fishing greater than 3 miles from shore, only to have those same anglers later fish within 3 miles for scup, likely generating more discards of species targeted earlier in the trip. The result of this rule is more effort and discarded fish and associated mortalities for all three highly sought-after species in the fishery management plan and further eroding of the public's confidence and compliance with marine recreational fishing regulations.

The impact of the proposed closure would be felt disproportionately among various jurisdictions, depending upon how much of their fishery occurs in Federal waters. The proposed rule acknowledges some of the impacts of the Federal waters closure and requested additional or alternative measures in lieu of a closure. We are aware that an 11 inch minimum size implemented throughout most state and Federal waters is projected to achieve the 56% reduction that is expected to restrain harvest to the 2022 RHL. An 11 inch minimum size would have a relatively small impact on anglers fishing from well-equipped private vessels, for-hire vessels, and in most larger bodies of water. However, the size limit change would have significantly greater, unintended impacts on small vessels fishing in sheltered coastal waters and shore-based anglers where the availability of larger fish is reduced. This impact would be felt disproportionately by subsistence fishermen from vulnerable communities, and therefore is a clear environmental justice (EJ) issue. Several states have implemented special shore fishing programs for scup that allow a smaller minimum size, including the state of RI during your tenure as State Director. These programs were developed as EJ initiatives before that term was coined. The states determined that raising the minimum size beyond what was implemented for 2022 would significantly impact the efficacy of these programs. This was a larger factor in the management decisions made for 2022. Additionally, these same communities are a significant component of some of the Party and Charter industry trips that occur, with people from these communities saving up to book trips in the hope of filling a cooler with fresh scup, and in this manner would be directly impacted by the Federal fishery closure.

Reasons for the opposition of the States to NOAA Fisheries' stated aim to reduce recreational scup harvest by 56% and the specific closure of the recreational fishery in Federal waters has been described above. A Federal closure will fail to significantly restrain scup harvest while increasing discards and disrupting fishery operations across multiple states. Consequently, it is with some disbelief among managers that it was included in the proposed rule. The timing of that rule, published on 4/18/2022, is so late as to make it impossible for most states to respond with appropriate, well-conceived measures, formulated with public feedback, that balance the impacts of restrictions among all recreational scup fishery stakeholders. It is also questionable how effective such measures will be in constraining recreational harvest given that a significant portion of the fishery will have been prosecuted before either the final Federal rule or any such late State rulemakings could be implemented.

The approval of a 1 inch minimum size limit increase coastwide for the recreational scup fishery by fishery managers from the MAFMC and ASMFC was a measured response to recent recreational overages, was recommended by State technical expertise given the status of this fish population, was based on current scup quota usage patterns, and also accounts for the uncertainty in MRIP data and its use as a stand-alone tool for fishery management. Pending

management actions will potentially address both sector quota allocations and recreational fisheries management but will not be implemented for the 2022 fishery. Recreational harvest reductions as a result of the size increase combined with underutilization of quota by the commercial fishery and recent fishery discard rates suggests that the ABC will not be exceeded. The closure of the recreational scup fishery in Federal waters is an unnecessary, ineffective, and disruptive measure that should be eliminated from the final rule. We hope you agree with this conclusion and help the states in seeking relief from the proposed Federal waters closure.

We thank you for your consideration and attention to this matter and we look forward to your prompt response.

Sincerely,

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