

SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL

SCIENTIFIC AND STATISTICAL COMMITTEE



SSC Meeting
October 24-26, 2023

FINAL REPORT

Town and County Inn
Charleston, SC

VERSION
FINAL
11/21/23

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*Indicates materials not available for briefing book at time of posting. These materials will be added to the recent materials section when available.

SAFMC PUBLIC COMMENT PROCESS

Written comment:

Written comment on SSC agenda topics is provided to the Committee through an online form, similar to all other Council briefing materials. Written comment can be submitted at [this link](#). For this meeting, the deadline for submission of written comment is 5:00 p.m., October 25, 2023.

Verbal comment:

Two opportunities for comment on agenda items will be provided at set times during SSC meetings. The first will be at the beginning of the meeting, and the second near the conclusion. Those wishing to comment should indicate such in the manner requested by the Chair, who will then recognize individuals to provide comment.

An opportunity for comment on specific agenda items will also be provided as each item comes up for discussion. Comments will be taken after all the initial presentations are given and questions from the SSC are answered, but before the SSC starts making recommendations to address the action items. As before, those wishing to comment should indicate such in the manner requested by the Chair, who will then recognize individuals to provide comment. All comments are part of the record of the meeting.

Meeting Format:

This meeting will be held in-person at the Town & Country Inn, Charleston, SC. Online registration for the meeting can be found at the Council's website: <https://safmc.net/scientific-and-statistical-committee-meeting/>

1. INTRODUCTIONS

1.1 Documents

Attachment 1a. SSC October 2023 Agenda

Attachment 1b. Transcript from the September 2023 meeting

1.2 Action

- Introductions and New Members
- Review and approve agenda. *Agenda approved.*
- Approve transcript from September meeting. *Transcript approved.*

2. PUBLIC COMMENT

The public is provided this comment period for any general comments pertaining to any items on the agenda. There will also be time provided for public comment during each specific agenda item as they are discussed. Those wishing to make comment should indicate their desire to do so to the Committee Chair.

There was no public comment, written or otherwise.

3. REVIEW OF MRIP-FES PILOT STUDIES

3.1 Documents

*Attachment 3a. NOAA-OST Presentation

Attachment 3b. Evaluating Measurement Error in the MRIP Fishing Effort Survey

3.2 Presentation

Dr. Richard Cody, NOAA-OST

3.3 Overview

NOAA Office of Science and Technology (OST) will present the results of recently completed pilot studies that investigated potential biases in the Marine Recreational Information Program's Fishing Effort Survey (MRIP-FES). The goal of these studies is to quantify the magnitude of bias resulting from non-sampling errors, including nonresponse, non-coverage, and measurement errors, and develop revised or new methods to reduce or mitigate bias.

The first study evaluated recall error in the FES by comparing FES estimates, which are based upon two-month reference periods, to those from experimental questionnaires that collected data for one-month reference periods. Results from the study suggest that FES estimates are not likely to be biased from errors of omission, but rather, respondents are more likely to over-report fishing activity when the reference period is limited to a single month. The study identifies an

approach to reduce telescoping error by providing bounds, in the form of questions about additional reference periods, against which responses are based.

The second study included analytical and experimental work to evaluate recall error related to the order in which survey questions are presented. Results from this study also suggest that the predominant form of measurement error in the FES is telescoping error; respondents are more likely to report out-of-scope trips than omit trips. The current FES questionnaire design includes bounding questions (12-month shore and boat fishing) that are likely to reduce telescoping error relative to an unbounded design. However, the order in which questions are presented may not be optimal in terms of reducing telescoping error - respondents are unlikely to review the entire questionnaire, including the bounding questions, prior to reporting for the desired reference period. Consequently, the current design is likely overestimating fishing effort. A revised design that presents the 12-month fishing questions before the two-month questions would likely further reduce bias resulting from telescoping error.

Lastly, MRIP-FES reporting has recently transitioned from producing estimates for catch and effort in two-month waves to producing cumulative estimates to meet the commitment in providing quality data in line with updated survey and data standards. This change increases sample sizes, thereby producing more reliable estimates that improve in precision throughout the year. The updated survey and data standards guide the design, improvement, and quality of data produced by the national network of recreational fishing surveys. The standards were established in 2020 and are being implemented in a phased approach to allow stock assessors and fisheries managers time to adapt to the updates.

The SSC should review the results of the pilot studies and transition to reporting of cumulative estimates and provide feedback for the Council on the implications of these findings for recreational catch estimates and its use for management.

3.4 Public Comment

3.5 Action

- Discuss the findings of pilot study 1 that evaluated recall error based on two-month versus one-month reference periods.
- Discuss the findings of pilot study 2 that evaluated recall error based on the order in which survey questions are presented.
- Discuss the implications of the transition to cumulative from two-month waves for catch and effort estimates.
 - *Availability of wave-based estimates is important for work related to spatial and temporal considerations. How the effort is distributed throughout the year may affect precision of estimates. The inclusion of zero catches in given waves for individual species is important for understanding temporal and spatial dynamics. The SSC recommends that these wave-based estimates still be available and suggests that a warning could be acknowledged before proceeding.*

- *The use of a PSE of 50 needs further exploration and the application of flags need to be reconsidered. If a confidence interval overlaps with zero, often that doesn't mean that we can say there are no catches. The agency should evaluate whether this criterion should be applied in this manner.*
- *The SSC expressed concern that Office of Management and Budget (OMB) precision standards may not be appropriate for use in estimating effort for fisheries management; data for some species may never conform to data standards.*
- **Discuss how pilot study results will impact timing of ongoing/future assessments and ABC determinations.**
 - *The order of the survey questions results in two different sets of estimates, neither of which have been validated. Evidence that one approach is better than the other approach is lacking. The arguments that were presented are plausible hypotheses, but do not offer evidence of one approach providing a better estimate of landings.*
 - *No conclusive evidence was presented as to which estimate better reflects true effort.*
 - *The results of the pilot study indicate that the original FES survey design may be biased by telescoping error but the pilot survey design may be biased by omission error.*
 - *Follow-up studies will be critical to providing further guidance. Interim analyses could be helpful in assessing the implications of potential changes in effort; however, no time series of landings were provided with the pilot study. The potential impacts on stock assessment and management may not be directly equitable.*
 - *Stock assessments should continue with using current MRIP data streams. The stock assessment process using recreational data should remain unchanged (do what has been done in the past with the use of recreational data). Application of recreational data streams in stocks should be consistent across assessments. The SSC does not endorse using the preliminary pilot study findings as a basis for ABC determination or impacting the timing of ABC determination.*
 - *Close coordination between the Office of Science and Technology (OST) and the SEFSC is necessary prior to any future public communication of study results. Current roll out of study results does not provide the context managers and public need to understand the potential impacts on stock assessment and management. OST in coordination with the SEFSC should demonstrate the impacts to assessment and management for key stocks using any new recreational data streams when rollout of new MRIP estimates occurs.*

- *Further, the SSC suggests an organized, systematic rollout of new MRIP information that could be on a standardized timeline. With the rollout, there should be a full analysis of potential management implications.*
- *Sensitivity runs with new recreational data time series should be included in the rollout.*
- *Testing of survey methodology should be a part of any robust sampling program, because both populations and the sampling environment change. Because potential improvements in sampling approaches are likely to be identified and will likely be needed in the future, consideration should be given to implementing changes on a periodic basis rather than an ad hoc basis.*
- *Extreme caution should be taken before making sweeping changes. Impacts on management of important resources and public perception of the science used to manage those resources by NOAA and the Councils is at risk due to poor communication planning by OST.*
- *There was some concern about the timeline of the follow-up study as it will not be completed until 2026 (if no complications occur).*
- *For Pilot study 1, clarity is needed regarding which states (Maryland or Maine) were involved in the study. Only Maryland was mentioned in the body of the text, not Maine (likely a typo in manuscript). The SSC raised concerns about the validity of comparing the pilot study and FES estimates, particularly for FL, given disparity in sample sizes.*
- *The SSC looks forward to the results of planned comparisons between Florida State Reef Fish Survey and FES and pilot study results. This is important in understanding the impact of possible changes to the survey.*
- *The SSC agrees that the proposed full study needs to incorporate other potential sources of biases:*
 - *Clarifying between social desirability bias and strategic bias; examining social desirability bias: further examination of the body of literature around telescoping and social desirability (such as voting behavior and health practices being impacted by social desirability), review of psychological literature about social desirability, and asking questions first to get at social desirability issue (such as “how important do you think it is to accurately report?”); avidity bias and implications for effort; non-response bias; examining studies from other areas (such as shopping – same survey with similar treatments, but where participants don’t have the same interests); validating with other studies (example of Ocean City, MD study could be used*

in this localized case to compare the estimates of FES) or with angler records of some anglers that keep records of every trip they make (would be expensive to locate and find, but could be one of the few ways to validate or determine if the issues are real – or could send fishers a text each night to see if they've fished – is a cheap way to follow up on a mail survey/phone survey to see what their recall is on any time period); and considering different behavior in Florida and how it impacts response rate.

- *Are blank spaces in the survey considered zeros or no data. How this is dealt with has impacts on the overall outcomes.*
- *Directions for the survey and across surveys need to be consistent in order to reduce bias. For example, the recording of zero fishing by either entering a zero or checking a box is found in different surveys.*
- *Nonresponse bias should be considered. Is nonresponse bias different across different demographics of the population? This topic is related to the assumption of a nonresponse being a zero or no data (see above).*
- *Sample estimates should be weighted by the inverse of the variance. Clarity on how weighting is being done on the wave level and cumulatively would be beneficial for determining the usefulness of variance estimates.*
- *Leveraging data and research from the business world might help to improve the survey.*
- *If question order can introduce bias, then consider randomizing the order of questions. For example, ask about modes (e.g., shore, private boat) in a randomized order.*
- *Literature is available related to social desirability of a behavior, strategic bias, and response bias. This literature should be leveraged. Strategic bias might be influenced by the perceived outcomes for the catch limits. Cognitive interviews could help to determine bias related to social desirability of an activity (such as fishing) and strategic bias for specific demographics.*
- *Florida is a large component of fishing activities in the South Atlantic. If FL fishing activities are different from other states, how is that being accounted for in the survey sample? What should response rates be?*
- *Ability bias is another type of bias that needs to be accounted for. It's difficult to get a good handle on ability bias, but it should have implications on the total effort estimates.*

- *The SSC requests an update on the full-study preliminary results at future SSC meeting.*

4. SEDAR 76: BLACK SEA BASS OPERATIONAL ASSESSMENT

4.1 Documents

- *Attachment 4a. SEDAR 76: Black Sea Bass Presentation
- *Attachment 4b. SEDAR 76: Black Sea Bass Report
- *Attachment 4c. Black Sea Bass Workgroup Report

4.2 Presentation

Dr. Matthew Vincent, SEFSC

4.3 Overview

The SEDAR 76 Black Sea Bass Operational Assessment was reviewed by the SSC at the April and July 2023 meetings. The base run estimate of terminal year (2021) spawning stock is below the MSST and the estimated fishing rate is above F_{MSY} ; thus, this assessment indicates that the stock is overfished and undergoing overfishing. Projections with $F = 0$ indicate that the stock could recover to its target of SSB_{MSY} within ten years if recruitment returns to its long-term average. If recruitment remains low, the stock abundance will remain low and not achieve SSB_{MSY} .

Certain model configurations were requested to be revised before recommending catch levels and rebuilding scenarios, and a dedicated workgroup was formed to discuss and provide these recommendations (see 4c. workgroup report). Recommendations from the workgroup included:

- Use F40% mature biomass for calculating SPR.
- Use F40%SPR as the reference point for F.
- After reapplication of the ABC control rule, use P* of 30% and 35% in projections.
- In fitting the landings and discards, use $F_{current}$ from the assessment ($F_{2019-2021}$) for 2023-2024, and also run an alternate scenario to use $F_{2020-2022}$ to incorporate the most recent data.
- Keep discards at current discard F and adjust landings based on specified management scenario.

The SSC is asked to review, discuss, and provide feedback on the recommendations of the workgroup and the resulting base model run and preliminary projections.

4.4 Public Comment

4.5 Action

- Review workgroup recommendations and resulting base model and preliminary projections.
 - *There is no evidence for or against sperm limitation (currently unknown). The SSC was concerned that the importance of males would be overemphasized by using alternative metrics for population status, and thus, chose weight of mature fish as spawning biomass based on precedent of other SEDARs.*
 - *The SSC recommends that reference points should be based on landings and discards, SPR metrics should be used in place of YPR, specifically SPR mature weight F40%.*
- Determine if P* should be 30% or 35%
 - Use P* of 30%:
 - *Stock is high risk and high susceptibility*
 - *Stock status is considered overfished, with 37% MCBE runs indicating overfishing. Given overfished status, stock would be in a rebuilding plan with probability of rebuild = $1 - P^* = 65\%$ or 70% .*
 - *In the April 2023 SSC meeting, the SSC determined a $P^* = 32.5\%$. In the updated assessment, the stock status changed from “both overfished and overfishing” to “overfished, but not overfishing.” Applying the ABC control rule this resulted in a change in Tier 3 - Stock status from 4 to 3, and a resulting $P^* = 32.5\% + 2.5\% = 35.0\%$. In the, yet to be approved, new ABC control rule amendment, the Council changed the Productivity, Susceptibility, and Risk score from Medium (2) to High (3). If the SSC agrees with this change, and when it is applied to the old ABC control rule, Tier 4 would change from 2 to 3, resulting in $P^* = 35\% - 5\% = 30.0\%$*
- Discuss high spike in F for interim year 2022.
 - *The SSC expressed concern that F estimates are extremely high (and unrealistic) for interim year 2022 ($F > 3$). In the most recent stock assessment, most fully selected F estimates are between 1 and 2. High F's indicate an issue with the projections.*
 - *Potential disconnect between high estimated recreational landings in 2022 despite low abundance of older age classes (3+) is generating high F given high selectivity for ages 6+. Other potential factors include impacts of unknown recruitment, and potential impacts of climate change.*
 - *For next assessment, these concerns should be addressed.*

- *Recommend an update on the ecosystem status report for the South Atlantic to the SSC.*
- *Set catch levels based on projections if appropriate and fill out Table 1.*
 - *Under the assumption of long-term recruitment and autoregressive R the stock can rebuild in 10 years. If recent recruitment is assumed, the stock can never rebuild to reference points (important to note that these reference points are based on long-term recruitment). Current discarding levels prevent rebuilding to 70% within 10 years using autoregressive recruitment. The SSC recommends the SEFSC investigate issues related to the 2022 point estimate of landings. See Center response in Other Business below.*
 - *Previously the SSC recommended: $ABC = \text{Recent } R$, $F = P_{30\%}(F_{40\%}SPR)$ using current discards (Table 11); however, this resulted in a higher F than that used in OFL so landings were higher for ABC relative to OFL; new recommendation from Southeast Fishery Science Center was $ABC = \text{Recent } R$, $F = P_{\text{rebuild of 70\%}}$, Discard current. This ABC recommendation will be discussed further during February 2024 webinar.*
 - *Preliminary OFL = Long term R, $F = P_{\text{rebuild of 70\%}}$ using current discards (Table 10); To be discussed further during February 2024 webinar.*
 - *$F_{30\%}SPR$ is on the books currently, but $F_{40\%}SPR$ is recommended because of findings in peer-reviewed literature.*
 - *Discard F has high uncertainty because the change of landings to discards leads to higher discard F.*
 - *The SSC will discuss other requested projections and set catch levels at its February 2024 webinar.*
- *Research Recommendation:*
 - *Study potential sperm limitation in BSB.*
- *Note: The SSC received this during Other Business:*
 - *The SSC received updated ABC and OFL projections for black sea bass using $ABC = \text{Recent } R$, $F = \text{Prebuild of 70\%}$, Discard current and $OFL = \text{Long-term } R$, $F = \text{Prebuild of 70\%}$, Discard current. There was concern about the spike in F for 2022 in the projections; the SEFSC plans to run new projections using average F from the previous three years and to address other questions raised by SSC. Further discussion about setting ABC and OFL for black sea bass was tabled until the February 2024 webinar. The SSC plans to determine final catch levels for black sea bass at that webinar.*

Table 1. Black Sea Bass Catch Level Recommendations (To be determined at February 2024 SSC webinar)

Criteria	Deterministic		Probabilistic	
Overfished evaluation (SSB ₂₀₀₁ /MSST)				
Overfishing evaluation (F ₂₀₁₉₋₂₀₂₁ /F _{MSY})				
MFMT (F _{MSY})				
SSB _{MSY} (1E10 eggs)				
MSST (1E10 eggs)				
MSY (1000 lbs.)				
Y at 75% F _{MSY} (1000 lbs.)				
ABC Control Rule Adjustment				
P-Star		30%		
SSC recommended P _{Rebuild}				
M				
Generation Time				
OFL RECOMMENDATIONS				
Year	Landed (lbs ww)	Discard (lbs ww)	Landed (number)	Discard (number)
2025				
2026				
2027				
2028				
2029				
ABC RECOMMENDATIONS				
Year	Landed (lbs ww)	Discard (lbs ww)	Landed (number)	Discard (number)
2025				
2026				
2027				
2028				
2029				

5. MODELING DISCARDS AND ABC DETERMINATIONS

5.1 Documents

Attachment 5a. Modeling Discards and ABC Determinations Presentation
Attachment 5b. Bohaboy et al. 2022 Publication

5.2 Presentation

Dr. Erik Williams, SEFSC

5.3 Overview

The Council requested during their June 2023 meeting an evaluation of how discards are addressed in applying sector allocations to develop ABC and ACL. Specifically, the Council is interested in allocating total stock removals to each sector to develop sector specific ABCs, and then subtracting sector-specific dead discards to provide sector ACLs expressed in landings. To support this evaluation, the Council requested a presentation from the SEFSC be given to the SSC in October 2023 on the recent paper (05b Bohaboy et al. 2022) describing pros and cons of developing sector ABCs with landings and discards and ACLs for landings.

5.4 Public Comment

5.5 Action

- Review an evaluation of how discards are addressed in applying sector allocations to develop ABC and ACL.
 - *OFL and ABC are estimated in total removals for use in projections.*
 - *Prior to black sea bass projections described above, the projection approach has assumed that landings to dead discards ratio remains constant.*
 - *However, management actions can impact this assumption as fleet behavior in response to management is difficult to predict. For example, discards could remain the same as landings drop or increase.*
 - *Also problematic is the fact that management actions depend on projection analysis part of the stock assessment, but accuracy of projection analysis depends on actual management actions and stakeholder response (effort/fleet shifts, etc.)*
 - *A comprehensive retrospective analysis of fleet responses to a variety of management actions would help with predicting future responses.*
 - *This analysis would be dependent on accurate estimates of discards and fishing effort.*
 - *Discards should be projected through a constant discard F with conversion of landings to dead discards, or other methods, depending*

on the species. Changes in management may reduce landings, but discards may not be reduced or may increase.

- *More research/information is needed to increase accuracy in projections.*
 - *The iterative process between management action and stock assessment inputs may rely on resolution of data that may not exist. Fleet behavior relies on effort and discard information that is poor quality, and these two parameters (effort and discards) are the most difficult to accurately measure.*
 - *Need communication from management during assessment projection development stage on types of management actions being considered. The SSC recommends more specificity in projection ToRs to help guide analysts and SSC.*
- **Discuss the implications of the publication results towards this effect.**
 - *Managing by ABC_L is current practice and recommended by SEFSC*
 - *Bohaby et al. recommends managing by explicit ABC_L and ABC_D*
 - *The problem with using ABC_D is that monitoring of discards is difficult relative to landings.*
- **Should this alternative method be added to the terms of reference for future assessments?**
 - *The SSC recommends moving forward with first order approximation (assuming status quo in management and that the landings:discard ratio will not remain constant) and use iterative approach for management/projection process.*
 - *If dead discard to landings ratios change sufficiently as a result of management actions, benchmarks will need to be recomputed. Note that landings to dead discard ratios are not necessarily equal to the sector ACLs.*
 - *Individual fleet landings and discards are already generated from stock assessment*
 - *Improvement of discard estimates is critical. Until discard and landings dynamics are fully understood and quality data are available, caution should be applied in using individual discard and landings fleet specific ABCs. The relationship between the catch and discards requires further investigation.*
 - *The SSC recommends that historical relationships between management action and achieved estimated discard rates be analyzed to help inform future projections should this approach be adopted by the Council. Inclusion of social scientists would be helpful for analysis design and interpretation. Analyses should consider how fishing effort shifts are affected by season/area closures (simulation studies, meta-analysis of literature, etc.)*

- *Discards should be projected through a constant discard F with conversion of landings to dead discards, or other methods, depending on the species. Changes in management may reduce landings, but discards may not be reduced or may increase.*
- *In terms of resulting ABCs in the projections, it does not matter if you split the fleets/section/components up first and then allocate the dead discards and landings by fleet, or dead discards and landings first and allocate them to the fleets.*
- *OFL and ABC are estimated in total removals for use in projections*

6. VERMILION SNAPPER INTERIM ANALYSIS

6.1 Documents

- *Attachment 6a. Vermilion Snapper Interim Analysis Presentation
- *Attachment 6b. Vermilion Snapper Interim Analysis Report
- *Attachment 6c. Excerpt from Oct 2022 SSC Meeting Final Report

6.2 Presentation

Dr. Nikolai Klibansky, SEFSC

6.3 Overview

The SEFSC will present the interim analysis modeling approach and data inputs for vermilion snapper. The overall interim analysis approach was reviewed by the SSC in Oct 2022 and recommendations are included in the final meeting report (06c). The SSC should discuss the approach and data inputs, and how the information could be used for providing catch advice for vermilion snapper.

6.4 Public Comment

6.5 Action

- Discuss the modeling approach and data inputs for the vermilion snapper interim analysis.
 - *Overall, the interim analysis modeling approach is reasonable, but the SSC expressed concerns with its application to vermilion snapper.*
 - *Appropriateness of sigma is conservative. Including error estimates in index ratio creates a more precautionary adjustment than without error estimate.*
 - *Consider using multiple years for reference index value similar to what is done for an assessment projection (3-year average).*
 - *The SSC expressed concern with how much time has elapsed since the previous standard assessment (SEDAR55) and the subsequent influence it may have on the interim analysis.*

- *For vermilion snapper, the SSC does not recommend basing recommendations on an index-based approach given the assessment model could not fit the index and thus it did not inform the population estimates and management advice (Figure 12 of SAR).*
 - *Implicit assumption of the interim analysis is that the index tracks abundance, but the previous assessment assumes the index does not track abundance; thus, the interim analysis assumptions don't match assessment assumptions. Sensitivities conducted during last stock assessment indicate that the index is not tracking abundance*
 - *If the index were believed to track abundance, there is greater uncertainty in stock status than the assessment model projection alone would indicate (Figure 49 of stock assessment report, pg 156; therefore, should not be using the index to update ABCs using the interim analysis approach.).*
 - Are recreational catch values in CHTS or FES?
 - *Recreational catch values were downloaded from FOSS but it was unclear what units were used. The SSC wondered what is the source of best interim information?*
 - Are index values from the SERFS trends report or recalculated using the SEDAR 55 assessment approach?
 - *Recent average index values are from SERFS Trends report (I_{ref} and I_{rcn}) for trap data only.*
 - *Observed/predicted values for calculating index error are from assessment model that uses trap and video data combined.*
 - *Thus, there is a mismatch between the index (trap data only) and the index error (trap and video data) used to calculate the catch adjustment.*
- Discuss if the interim approach should be used to develop ABC adjustments (up and down) or serve as a health check on current status.
 - *Include interim analysis in SAFE report updates (every 2 years) to assess trends in species status since the last assessment.*
- Review catch adjustments and make recommendation to Council if appropriate.
 - *The SSC recommends not using the interim analysis to adjust catch levels for vermilion snapper (see other discussion points for justification)*
 - *SAFMC staff is to develop straw man working paper for guidance on which species are suitable for interim analysis for the SSC to review at a later meeting.*
- What criteria should be met to apply interim analysis to change catch levels?

- *Concern that adjustment of catch does not take into account status of the stock, and the 3-year reference index should consider the SSB target. No direct connection to the status of the stock.*
- *The SSC reiterates our earlier statement that “The availability of a reliable abundance index is critical for the application of the interim analysis process” such that the availability of a reliable index that is fit well in the stock assessment is critical to changing catch levels. Without availability of a reliable index of abundance, interim analysis should only serve as a health check and not be used for changing catch levels.*
- *Determine metrics for which species would be good candidates for using interim analysis approach to adjust catch.*
 - *Reliable fit to index*
 - *High % of MCBE runs showing not overfishing/not overfished.*
 - *Performed well in the interim analysis MSE*

7. BSIA NATIONAL STANDARD 2 REGIONAL FRAMEWORK

7.1 Documents

Attachment 7a. BSIA National Standard 2 Regional Framework
Attachment 7b. MSA-NS2-50-CFR-600.315

7.2 Presentation

John McGovern, SERO and Erik Williams, SEFSC

7.3 Overview

The Magnuson-Stevens Fishery Conservation and Management Act (MSA § 301(a)(2)) mandates that fishery conservation and management decisions in the U.S. be based on the Best Scientific Information Available (BSIA). NOAA Fisheries is responsible for implementing this requirement in consultation with Fishery Management Councils and other advisory bodies. This document clarifies the framework used to make BSIA determinations in the Southeast Region, including the jurisdictions of the Caribbean, Gulf of Mexico, and South Atlantic Fishery Management Councils (per NOAA Fisheries Procedural Directive 01-101-10).

7.4 Public Comment

7.5 Action

- Review the southeast regional framework for determining that fishery conservation and management measures are based on the best scientific information available.
 - *National Standard 2 language does not align with Southeast regional framework document (section c, “SSC scientific evaluation and advice to Council” specifically “SSC scientific advice and recommendations to its Council are based on scientific information that the SSC*

- determines to meet the guidelines for best scientific information available”). NS2 provides scientific determination authority to SSC, while the southeast regional document framework specifies NOAA Fisheries as the authority.*
- *The SSC expressed concern that Section-1g specifically provides justification for NOAA fisheries to override SSC recommendations. Majority of time, the iterative process in building a consensus between the SSC and SEFSC is constructive and provides useful management advice. However, when the SSC is asked to reconsider their recommendation (see section 1g), it is not forcible upon the SSC to do so.*
 - *SSC decisions operate from consensus. They build the record to justify what is BSIA.*
 - *Section-3d is at odds with the traditional scientific process: here, the final review of data products is being reviewed by the entity that has produced them. This has the potential to degrade the integrity of the Center’s science and could impact Council/stakeholder perception of the science used to inform management.*
 - *Procedures (SSC/external review) to provide independent review are critical to building public trust in the science/management process.*
 - *For some stocks, the “best available” data and/or modeling approach may be lacking whereby it is not informative or useful for the SSC in determining OFLs/ABCs.*
- **What are the implications for scientific based management and the peer review process if the SSC’s determination of BSIA is overridden by the SEFSC for stock assessments used to set ABCs?**
- *After NOAA fisheries determination on BSIA, when the SSC is asked to reconsider their recommendation (see section 1-g), it is not forcible upon the SSC to do so.*
 - *Should SSC decisions be repeatedly overridden, this would demonstrate failure of the scientific peer-review process.*
 - *The SSC should be one of the most independent and objective peer review bodies, which is critical when management actions could have political motivation.*
 - *The SSC recommends development of a more comprehensive fallback plan of SSC procedures for when assessments, particularly those reviewed by the SSC (interim and operational assessment reviewed outside the SEDAR process), are rejected. Some guidance documents already exist.*

8. SNAPPER GROUPER MANAGEMENT STRATEGY EVALUATION (POSTPONED)

~~8.1 — Documents~~

~~*Attachment 8a. Snapper Grouper MSE Presentation~~

~~8.2 — Presentation~~

~~Dr. Tom Carruthers and Dr. Adrian Hordyk, Blue Matter Science~~

~~8.3 — Overview~~

~~The SSC will receive an update on the snapper grouper MSE progress and discussion of initial results, management options and performance metrics.~~

~~8.4 — Public Comment~~

~~8.5 — Action~~

~~➤ TBD~~

9. SOUTH ATLANTIC DEEPWATER LONGLINE SURVEY REVIEW

9.1 Documents

*Attachment 9a. SADL Survey Overview Presentation
Attachment 9b. SSC-SADL Workgroup Final Report

9.2 Presentation

Dr. Kevin Craig, SEFSC and Dr. Marcel Reichert, SSC WG Chair

9.3 Overview

The South Atlantic Deepwater Longline (SADL) survey was developed to survey deep-water species inhabiting the continental shelf and upper slope habitats of the Southeastern US, particularly in depths ranging from 75-366 m. These demersal deep-water species include Blueline Tilefish, Snowy Grouper, and Tilefish (Golden), as well as other snapper and grouper species managed by the South Atlantic Fishery Management Council. These deep-water species tend to be data-limited with assessments relying heavily on fishery-dependent data. The SADL survey was designed to fill data gaps by incorporating cooperative sampling approaches with stakeholders using industry vessels as survey platforms to collect abundance data and life-history information (e.g., otoliths and reproductive samples) to support stock assessments and management.

The survey was implemented in 2020 and repeated in 2021, 2022, and 2023. Survey methodology was developed through guidance from the 2015 South Atlantic Deepwater Survey Workshop, results from the Mid-Atlantic deepwater longline fisheries-independent pilot survey and based on prior cooperative SCDNR-industry projects. In order to incorporate information into SEDAR stock assessments, the SSC has been asked to review a report from the Southeast Fishery Science Center documenting the sampling design and methodology and data generated from this survey. An SSC workgroup comprised of four members was formed in Oct 2022 that

was tasked with providing comments during the development of a final report that will be presented to the SSC. The SSC will review the survey report, SSC workgroup review, and ensure the methods are consistent with best scientific information available (BSIA).

9.4 Public Comment

9.5 Action

- Review presentation on the South Atlantic Deepwater Longline Survey (SADL) and the final report and recommendations of the SSC SADL workgroup.
 - *The SSC agrees with the findings and recommendations of the SADLS review WG, which are detailed in the WG report.*
 - *The current stratified simple random sampling design, gear, deployment methods, collected data and biological samples are suitable for the survey.*
 - *The focal species should be (Golden) Tilefish, Blueline Tilefish, and Snowy Grouper, with Yellowedge and Warsaw Grouper and Speckled Hind as secondary focal species. An important consideration was the original impetus of the survey. Any considered survey optimizations should be based on data of the focal species.*
 - *At least 5 years of survey data should be available before an index of relative abundance should be considered for use in a stock assessment. However, index development and monitoring of a possible index for contrast, variance, etc. can start earlier (e.g., after 2023 data are available). Other information, such as length at age and reproductive information can be used at any time.*
 - *Data from 2020, the first year of the survey, should not be used for index development. Data from 2021 should be viewed with caution as samples were not yet collected with a fully random design. Data from 2022 onward should be fully considered for index development.*
 - *The fully random sampling design can reduce catch rates, but future optimization should be considered to improve (optimize) sampling efficiency.*
 - *Optimization of sampling by possible re-stratification and reallocation of sampling likely need additional years of data before being considered, but the development of optimization strategies and analysis approaches can begin sooner (e.g., after 2023 data are available)*
 - *The 2023 expansion (additional 30 stations) in the north, with effort proportional to the remainder of the sampling area, should be continued in the future if possible.*
 - *Sampling strategy for biological samples may need to be clarified and made more consistent or transparent. The collection of age and*

reproductive samples from the focal species should be prioritized as much as possible.

- *If future funding limits biological sampling, collection of the samples should continue if possible, and collections of age structures should be prioritized, but processing these samples could be postponed until funding becomes available.*
 - *Cooperative effort of the survey with industry validates process with stakeholders. Facilitates sense of ownership in data and management process.*
 - *Identified survey strengths and weaknesses:*
 - *Strengths:*
 - *collaboration with the industry,*
 - *region-wide sampling,*
 - *current fully random sampling design,*
 - *gear and deployment decisions were made with considerable input from industry, workshops, results of several pilot studies, and review of published information.*
 - *choice of methods was a good compromise that included considerations for safety and gear loss (e.g., line length), targeting a variety of species and fish lengths (hook size and bait), and available funding and time (biological sampling).*
 - *multispecies nature of the survey with potential to provide useful information for a range of species.*
 - *Weaknesses:*
 - *besides depth and bottom water temperature, no other hydrographic or habitat variables are collected,*
 - *no samples are taken to determine fecundity*
 - *Research Recommendations (note that most of these research recommendations require additional funding outside of the normal operations of the current survey design given the logistical and funding restrictions):*
 - *Analyze the effect of the “first hook in/last hook out” strategy on catch rates.*
 - *Collecting whole gonads for fecundity studies where possible.*
 - *Collect more habitat information, including current and structure.*
 - *Analyses to optimize final data products that will be used for stock assessment and management.*
 - *The seasonal timing of the survey may warrant further investigation.*
- What diagnostics are necessary for inclusion into stock assessments?

- *The index values and trends for each species once they are available after 5 years (2021-2025).*
- *The inclusion of some elements of the survey does not necessarily require the minimum recommended 5-year time series to be completed. Variability and contrast in index around estimates can be examined and used for stock assessment information.*
- *Geographic region effects may exist because of single operator in each region; however, index time series will be unaffected if same operator is gathering data. Switching operators within a geographic region may confound the sampling design.*
- What elements of the survey should be included into stock assessments and/or management (age/biological information, allocation between Councils, etc.)?
 - *Survey data could provide information on how stock should be split between South and Mid Atlantic Councils (similar to mid-Atlantic pilot study data to inform allocation split).*
 - *Provide baseline data for range expansion or distribution shifts in blueline tilefish (or other species) into mid-Atlantic region.*
 - *The SSC recommends using age/biological information as available and appropriate.*

10. SEDAR 94: FLORIDA HOGFISH TERMS OF REFERENCE, SCHEDULE, AND PARTICIPANTS

10.1 Documents

Attachment 10a. Florida Hogfish Terms of Reference

10.2 Presentation

Dr. Julie Neer, SEDAR Staff

10.3 Overview

Review terms of reference, schedule, and recruit participants for SEDAR 94: Florida Hogfish benchmark assessment.

10.4 Public Comment

10.5 Action

- Review the terms of reference, schedule, and select participants for the SEDAR 94 Florida hogfish stock assessment.
 - *Approve terms of reference with one edit: Change 'Recommend' to 'Characterize' discard mortality rates in DW.*
 - *Participants:*

- *DW (data scoping start April, One week in-person: tentatively July-Aug '24)*
 - *Steve Turner*
 - *Marcel Reichert*
- *AW (Oct '24 – Jun '25, 5-6 webinars)*
 - *Genny Nesslage*
 - *Steve Turner*
- *RW (one week in Fall '25, in St Pete)*
 - *Kai Lorenzen*
 - *Alexei Sharov*

11. YELLOWTAIL SNAPPER OFL/ABC CONSIDERATIONS

11.1 Documents

Attachment 11a. Council Memo to Reconsider Yellowtail Snapper OFL/ABC

11.2 Presentation

Dr. Judd Curtis and Dr. Chip Collier, SAFMC Staff

11.3 Overview

The Council has asked the SSC to reconsider their OFL and ABC recommendations for the yellowtail snapper stock. This request is being made on account of the recent findings from the MRIP-FES pilot study, which showed increased uncertainty in recreational catch and effort estimates. Because of the high proportion of recreational landings for this species and that it is a jointly managed species with the Gulf of Mexico, future adjustments to recreational estimates could significantly affect the jurisdictional allocation between the South Atlantic and Gulf of Mexico. Florida FWC is currently developing a process for integrating the State Reef Fish Survey (SRFS) into the yellowtail snapper assessment process and at the end of this year will contain sufficient years of data to calibrate with MRIP-FES to increase precision in recreational estimates. An updated assessment will then be produced and sent to the SSC for review and provide updated catch level recommendations.

11.4 Public Comment

11.5 Action

- No action needed.
 - *The SSC expressed concern with setting precedent in revising OFL/ABC recommendations that have already been approved on account of new data that have not been properly vetted.*
 - *Has the Florida State Reef Fish Survey been evaluated for potential biases similar to what has been seen with MRIP-FES?*

- *The SSC requests a presentation from FL-FWC on the Florida SRFS before integration into assessments in April 2024. The SSC requests background documents be included for review.*
 - *As a note - Presentation on SRFS survey presented to the SAFMC seminar series and is available on the SAFMC website.*
- *The SSC recommends the new assessment with new recreational data streams (SRFS survey data, recalibrated FES data) undergo the full SEDAR process before revising catch level recommendations. Thus, the current ABC recommendation stands.*

12. CLIMATE CHANGE SCENARIO PLANNING UPDATE

12.1 Documents

Attachment 12a. Potential Action Items from CCSP

Attachment 12b. Climate Change Scenario Planning Summit Report

12.2 Presentation

SAFMC Staff

12.3 Overview

Council staff will provide an update on topics relevant to the Climate Change Scenario Planning report and actions that are relevant to recent concerns in the South Atlantic (regime shifts, low recruitment, dynamic biomass reference points, etc.), and discuss some potential ideas for how to address these topics in the next year. Some ideas include holding a dedicated South Atlantic Climate Change Scenario Planning data workshop and soliciting requests for research proposals to investigate these topics and operationalize for management.

12.4 Public Comment

12.5 Action

➤ No action needed.

13. SCS8 MEETING SUBTHEME TOPICS

13.1 Documents

Attachment 13a. Proposal for the SCS8 Theme Topic

*Attachment 13b. SCS8 Presentation to the CCC

13.2 Presentation

Dr. Jeff Buckel, SSC Chair

13.3 Overview

The Scientific Coordination Subcommittee proposes to convene its 8th workshop (SCS8). The New England Fishery Management Council (NEFMC) is willing to host this meeting. The proposal is for a three-day workshop to be held during the early fall of 2024 (tentatively the last week of August or first week of September 2024). The NEFMC proposes to hold the workshop in New England, depending on the availability and cost of suitable event facilities. The Scientific Coordination Subcommittee reached consensus on the proposed theme after seeking input from all the Scientific and Statistical Committees (SSC) and now is looking for additional input on subthemes and topics.

13.4 Public Comment

13.5 Action

- Review presentation to the CCC and discuss potential subtheme topics for the 8th national workshop of the Scientific Coordination Subcommittee (SCS8).
 - *Agreement with the sub-theme topics*
 - *One topic to add: Changing landings:discards ratios in stock assessment projections and potential for impact on benchmarks*

14. FISHERY MANAGEMENT PLAN AMENDMENT UPDATES

14.1 Documents

*Attachment 14a. Fishery Management Plan Updates

14.2 Presentation

SAFMC Staff

14.3 Overview

Council staff will provide an update on the recent fishery management plan amendments that have been reviewed by the SSC at previous meetings and are now being discussed by the Council for integration into management.

14.4 Public Comment

14.5 Action

- No action needed.

15. PRECISION THRESHOLD WORKGROUP UPDATE

15.1 Documents

*Attachment 15a. SEFSC-OST Precision Threshold Workgroup Presentation

15.2 Presentation

SEFSC

15.3 Overview

The SSC is waiting on catch estimates with proportional standard error less than 50% to initiate the Unassessed Species Workgroup. Many of the unassessed stocks have annual proportional standard error that exceeds precision standards for reporting values by the Marine Recreational Information Program (PSE >50%). There is a joint workgroup of the Southeast Fishery Science Center and Office of Science and Technology to develop appropriate methods to estimate catch for these stocks. The SEFSC will provide an update on the workgroup's progress.

15.4 Public Comment

15.5 Action

- No action needed.
 - *Workgroup currently only looking at assessed stocks*
 - *Using precision threshold of 50% in line with MRIP.*
 - *Request update from workgroup at the April 2024 meeting*

16. OTHER BUSINESS

- EwE SSC workgroup members
 - *Alexei Sharov*
 - *Marcel Reichert*
 - *Recruit outside members with EwE experience*
- Tilefish/Blueline Tilefish assessment potential delays to incorporate SADL survey and index.
 - *Tilefish:*
 - *Commercial CPUE index not valid anymore as a result of management.*
 - *SEDAR66, terminal year 2018*
 - *Annual recruitment is not estimated since 2011*
 - *The SCC recommends delaying tilefish assessment until SADL index is ready for integration into the assessment. Age composition will also help stabilize model.*
 - *Blueline Tilefish*
 - *Last index data available in 2007*
 - *SEDAR50, terminal year 2015*

- *Because of management needs (in South and Mid-Atlantic), the SSC does not recommend changing the assessment timeline for blueline tilefish on the SEDAR schedule.*
 - *Index and other scientific information is forthcoming. If the assessment is delayed, informational update on blueline tilefish stock needs to be provided in response to management concerns.*
 - *Future assessment should be a benchmark assessment (2028) to account for potential changes in stock structure/spatial distribution, integration of SADL survey and bio/age data.*
- BSB
- The SSC received updated ABC and OFL projections for black sea bass using $ABC = \text{Recent } R, F=P_{\text{rebuild}} \text{ of } 70\%, \text{ Discard current}$ and $OFL = \text{Long-term } R, F=P_{\text{rebuild}} \text{ of } 70\%, \text{ Discard current}$. There was concern about the spike in F for 2022 in the projections; the SEFSC plans to run new projections using average F from the previous three years and to address other questions raised by SSC. Further discussion about setting ABC and OFL for black sea bass was tabled until the February 2024 webinar. The SSC plans to determine final catch levels for black sea bass at that webinar.

17. PUBLIC COMMENT

The public is provided one final opportunity to comment on SSC recommendations and agenda items.

There was no public comment.

18. CONSENSUS STATEMENT AND RECOMMENDATIONS

The Committee is provided with an opportunity to review its report, final consensus statements, and final recommendations.

The Final SSC report was provided to the Council by 1:00pm on Friday, November 17th, 2023 (approximately 3 weeks from the end of the meeting) for inclusion in the briefing book for the December Council meeting.

19. NEXT MEETINGS

19.1 Scientific and Statistical Committee Meetings

- January/February Webinar (TBD)

- April 8-11 or 15-18 or 22-25, 2024 in Charleston, SC (with SEP)

19.2 South Atlantic Fishery Management Council Meetings

- December 4-8, 2023 in Beaufort, NC
- March 4-8, 2024 in Jekyll Island, GA

ADJOURNED AT 12:04PM