SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL

SCIENTIFIC AND STATISTICAL COMMITTEE

SSC Meeting

FINAL REPORT

April 16-18, 2024

The Crowne Plaza

4831 Tanger Outlet Blvd.

North Charleston, SC

VERSION
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CONTENTS

DOCUMENTS

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 10:00 a.m., April 18, 2024.

Verbal comment:

Two opportunities for comment on agenda items were provided at set times during SSC meetings. The first was at the beginning of the meeting, and the second near the conclusion.

An opportunity for comment on specific agenda items was also provided as each item came up for discussion. Comments were taken after all the initial presentations were given and questions from the SSC were answered, but before the SSC started making recommendations to address the action items. All comments were part of the record of the meeting.

Meeting Format:

This meeting was held in-person at The Crowne Plaza, North Charleston, SC. Online registration for the meeting could be found at the Council's website: https://safmc.net/scientific-and-statistical-committee-meeting/

1. INTRODUCTIONS

1.1 Documents

Attachment 1a. SSC April 2024 Agenda

Agenda was approved

Attachment 1b. Transcript from the February 2024 meeting

Transcript was approved

1.2 Action

- Introductions
- Review and approve agenda.
- Approve minutes from February meeting.

2. PUBLIC COMMENT

The public was provided this comment period for any general comments pertaining to any items on the agenda. There was also time provided for public comment during each specific agenda item as they were discussed.

3. SEFSC MINIMIZING RED SNAPPER DISCARDS PUBLICATION

3.1 Documents

Attachment 3a. Shertzer et al. 2024 red snapper discards publication
*Attachment 3b. SEFSC red snapper discards presentation

3.2 Presentation

Dr. Scott Crosson and Dr. Kyle Shertzer, SEFSC

3.3 Overview

South Atlantic Red Snapper are considered overfished and undergoing overfishing per the latest stock assessment (SEDAR73). A significant proportion of the total fishing mortality is from discarded fish and efforts to reduce total dead discards has been a focal point of the SAFMC. Several strategies to achieve this objective are presented in the Shertzer et al. 2024 publication and fall broadly into the categories of gear modification, discard mortality mitigation, size limits, spatial approaches, or temporal approaches. Criteria for comparison address the management goals of decreasing dead discards, rebuilding the age structure, and increasing landings and spawning biomass.

The SAFMC is concurrently developing a management strategy evaluation (MSE) for the snapper-grouper fishery and several of the strategies presented by Shertzer et al. may be considered in the MSE. The SSC should discuss the potential effectiveness of these strategies for

achieving management goals and make recommendations on which management strategies should be explored for the Snapper-Grouper MSE.

3.4 Public Comment

3.5 Action

- Discuss what strategies could meet goals for reducing discards and rebuilding the red snapper stock.

- *The SSC much appreciated the presented research and recommends continuing this model exploration by adding other species. This can be a valuable tool to understand and explore management options.*
- *The SSC recognizes that these management strategies can be applied to the short-term, but planning for longer-term strategies should also begin now given the process will likely take several years. Once red snapper is rebuilt, an update of the assessment and an MSE or some other harvest policy analysis will be needed to prevent a return to the overfished/overfishing status immediately upon being rebuilt.*
- *The SSC recognizes this study is looking at a suite of strategies for rebuilding in an equilibrium time frame to compare their relative performance, but for management the SSC will need shorter-term tactical analyses for making final management recommendations. The MSE currently underway in conjunction with assessment projects will inform those short-term recommendations.*
- *The SSC recommends making the following management approaches a lower priority based on the effects on the population as detailed in the Shertzer et al. paper:*
    - *Size limits.*
    - *Red snapper species-specific season length.*
    - *Area closures for bottom fishing (listed because area closures did not perform well across all metrics due to estimated declines in recreational landings), but area closures may be very effective at rebuilding the stock as noted below.*
        - *Could be inequitable in practice.*
        - *Shifting effort due to spatial/temporal closures will likely negate some of the benefits.*
    - *Gear modifications/selectivity.*
    - *Annual catch limits.*
    - *Species-specific bag limits.*
- *We recommend that the MSE development team retain this list of strategies that do not have a substantial effect (though may be easy to implement) in the MSE to demonstrate they have been explored and to demonstrate the relative effectiveness of other strategies.*

- What potential strategies should be explored for the Snapper-Grouper MSE?

- *The effort control strategy with a broader range of percent reduction in effort should be explored, specifically looking at values between 25% and 75% would be beneficial.*
    - *Significant effort reduction would be required to meet management objectives.*

    - *Investigate alternative ways to implement effort control (e.g., capping vessel trips, angler trips, number of trips made per individual vessel, trip lotteries, harvest tags, etc.), and also investigate potential non-linear responses in effort control or other effects (biological, economic, social). Investigate the number of trips by individual reef fish vessels and individual reef fish anglers per year. What does that distribution look like? If most vessels/anglers take only one or two trips for reef fish per year then a reduction in effort within the fishery will require lottery/harvest tags as vessel trip limits will not be effective; however, if most vessels/anglers take a relatively high number of trips per year then reductions in vessel or individual trips per year might have an impact on effort reductions.*
- *Look at response to different levels of compliance with full retention strategies or other management strategies (e.g., descending device usage, etc.).*
- *Retain descending device usage/best fishing practices but provide more detail on calculations of fish conserved using barotrauma mitigation.*
- *Explore combined strategies and additive benefits (e.g., barotrauma mitigation plus reduction in effort).*
- *Area closures for bottom fishing (listed because large effect on reducing dead discards in scenario 20, but not for scenario 16).*
    - *Scenario 20 has a substantial potential for rebuilding spawning biomass and mean age.*
    - *A combination of different spatial/temporal closures can also be considered.*

        - Would these strategies be applicable in a multi-species fishery and what are some of the hurdles?
- *Spatial and temporal closures and effort reductions would need to be implemented for the entire snapper-grouper fishery to ensure efficacy and feasibility, and this would affect all species, independent of biomass or stock status. Shifting of effort from spatial and/or temporal closures may impact species in other areas or seasons.*

4. SEFSC LOW RECRUITMENT WORKGROUP UPDATE

4.1 Documents

*Attachment 4. SEFSC Low Recruitment Workgroup Presentation

4.2 Presentation

Dr. Kyle Shertzer, SEFSC

4.3 Overview

Several species in the snapper grouper fishery management unit managed by the SAFMC have been experiencing historically low recruitment over the past decade. A number of these species are in an overfished status and have a scheduled rebuilding plan, though the low biomass of these stocks are not necessarily the result of high fishing mortality over this time period but rather a

failure in recruitment. The SEFSC has formed a workgroup to investigate the potential causes of this low recruitment trend and the SSC will receive a presentation on the progress of this workgroup.

4.4 Public Comment

4.5 Action

- No action needed.

- The SSC greatly appreciates the analyses of the SEFSC's Low Recruitment Working Group to date and their plans to continue trying to identify the cause of estimated declines in and sustained low recruitment for multiple stocks in the South Atlantic.

The SSC recommends:

- *Spatial changes in SERFS data collection over time to be explored more thoroughly by comparing the exact sampling frame from pre-2010 to the sampling frame post-2010 by subsetting data using those sites that were contained in the original sampling universe and creating an index to compare to the current index (See Vecchio et al 2023). Then, include the two different indices into the stock assessment individually to determine if there are different outcomes. Even slight differences in the indices of abundance could lead to differences in recruitment if the overall slope of the index changes.*
- *Closer examination of timing in fishery change point analysis relative to changes in estimated recruitment. There are likely additional species to be added to the analysis including those observed to have changes in trends and length over time as demonstrated in the presentation of the SERFS data (e.g., King and Spanish Mackerel, Stenotomus spp, Bank Sea Bass, and maybe others)*
- *Evaluating modelling approaches used to standardize SERFS CPUE and composition data (e.g., explore additional data distributions & model parameterizations) where appropriate.*
- *Analyses of the impact of additional potential environmental drivers, particularly those likely to drive larval movement and settlement (e.g., Gulf Stream transport/ direction, wind, etc.), potentially in a more holistic statistical fashion (e.g., random forest).*
- *Potential to examine demographic changes that could impact reproduction and egg output (e.g., shifts in sex ratios to include fewer males, shift to smaller sizes of males which could indicate earlier transition from female to male, impacting female egg output).*
- *Explore whether similar trends in low recruitment are occurring for Gulf of Mexico species that spawn in winter.*

Furthermore, the SSC recommends that SSC representation join the SEFSC low recruitment working group for identifying a path forward. This will help communicate SSC ideas and concerns to the working group more effectively so we can work together to integrate new information on causes of low recruitment into South Atlantic assessments and management.

For future ecosystem issues and integration of SCS8 findings, discuss the formation of an SSC ecosystem workgroup at the summer webinar meeting. See also under Other Business below.

5. FLORIDA STATE REEF FISH SURVEY

5.1 Documents

Attachment 5a. Introduction to Florida SRFS
Attachment 5b. Florida SRFS Presentation

5.2 Presentation

Dr. Luiz Barbieri and Beverly Sauls, FL-FWCC

5.3 Overview

The Florida State Reef Fish Survey (SRFS) was developed to be a specialized, supplemental survey to the Marine Recreational Information Program (MRIP), and it is being considered into the stock assessment process for Florida centric species (e.g., yellowtail snapper, mutton snapper, hogfish). These presentations will provide an opportunity to update the SSC on (1) the need for our national-level recreational fisheries data collection enterprise to evolve given the assessment and management demands brought up by the last reauthorization of MSA (i.e., implementation of ACL's, AM's, etc.); (2) provide a deep dive into SRFS so they can see how a specialized, supplemental survey can help address some of MRIP's current limitations; and (3) get a better understanding of the careful planning and technical complexity of SRFS design and estimation procedures.

Several key points related to the FL-SRFS to consider are that:

1. SRFS was developed to be a specialized, supplemental survey to MRIP. The MRIP program helped develop the survey and provide continued assistance in survey implementation.
2. SRFS has been peer-reviewed, is MRIP-certified, and conforms to MRIP's data standards to make it consistent with BSIA.
3. SRFS is conducted just in Florida so at this stage only applicable to Florida-centric assessments where the vast majority of landings happen in Florida.
4. The SRFS-MRIP calibration for YTS and Mutton is ongoing but with the assistance of the NMFS OS&T-MRIP program it will be peer-reviewed by a panel of professional survey statisticians following pre-established TORs.

The S79 and S96 assessments have a TOR that asks the panels to consider the use of SRFS in place of MRIP for the private boat segment of the recreational fisheries. The decision to use one survey vs. the other for these assessments will be made by the SEDAR panels (as it is usually the case with any other SEDAR assessment) but since the SSC will review these assessments this is a good opportunity for the SSC to ask questions or voice any concerns on the integration of the Florida SRFS into the stock assessment process.

5.4 Public Comment

5.5 Action

- No action needed.

The SSC appreciated the comprehensive presentations and the efforts put forth by the FL FWC to enhance the collection of recreational harvest and effort data in their region, and the thoroughness with which the implementation of this survey was approached. We expect that these data could prove valuable to future assessment activities. The SSC is looking forward to further discussing this survey's integration in upcoming assessments when these assessments are up for SSC review.

The SSC had several questions:

- *Relative to the statement above "the use of SRFS in place of MRIP for the private boat segment of recreational fisheries"; would this be the same as the SRFS-MRIP calibration that was approved for SEDAR 72 and 88, or a complete replacement of MRIP by the SRFS data?*
- *For the SRFS questionnaire, could it potentially lead to underreporting of effort? Is it possible that the new shortened questionnaire could lead to telescoping bias (overreporting of effort)? Similar to the recent analyses and changes to the ordering of questions in the MRIP survey, it's not clear if it can be determined definitively which direction the bias is occurring for each survey questionnaire design.*
- *Why is the bias different between the Gulf and Atlantic coasts of Florida?*

6. EVALUATION OF COMMERCIAL DISCARD LOGBOOK DATA

6.1 Documents

*Attachment 6a. SEFSC Presentation Commercial Discard Logbook
*Attachment 6b. SEFSC White Paper on Commercial Discard Logbook

6.2 Presentation

Dave Gloeckner, SEFSC

6.3 Overview

Following the June 2023 meeting, the Council requested that the SEFSC provide an evaluation of the commercial discard logbook with an emphasis on the reliability of annual discard estimates. This request was prompted by concerns that an increasing percentage of trips reporting no discards would affect the reliability of the logbook data over time. The SEFSC provided a general update on the status of that request to the Council in December 2023 and plans to continue the work in 2024. The SSC will receive an update on the progress of this evaluation.

6.4 Public Comment

6.5 Action

- Evaluate the findings of the Commercial Discard Logbook data and discuss the implications for commercial data streams in stock assessments.

- *SSC recommends not using commercial discard logbook data as currently configured as a direct time series in stock assessments. Further exploration of the data and other methods to better estimate commercial discards is needed.*
- *Develop incentivized programs to improve reporting of discard data (incl. decrease of zero discard reporting), and additional funding is needed to expand the commercial observer program in the South Atlantic to improve data collection.*
- *There may be other methods or data sources for gathering commercial discard data such as:*
    - *Ratio methods (discards/unit catch) or other methods from the existing observer data.*
    - *Subset of reliable reporting vessels coupled with observer validation (i.e. study fleet).*
    - *Electronic monitoring (vessel camera collected data) has already been used in HMS and for GOM reef fish and should be more seriously considered (cost-savings over live observers, improved reliability).*
- *Need to provide information to fishers to improve understanding of why accurate discard reporting is important and how this affects assessments. More accurate data is beneficial because it may decrease the uncertainty buffer in stock status estimates and resulting management recommendations.*
- *The SSC noted that the increased proportion of zero discards coincided with increased reporting compliance (see attachment 6b, Figure 1), and that zero discard reporting was highest for fishermen that took very few trips see attachment 6b, Figure 2), indicating that there may be a reliable subset of the data that could be used. The SEFSC agreed to investigate these issues.*

7. SEFSC PRECISION THRESHOLD WORKGROUP

7.1 Documents

Attachment 7. SEFSC Precision Threshold Workgroup Presentation

7.2 Presentation

Dr. Vivian Matter, SEFSC

7.3 Overview

A joint NOAA Southeast Fishery Science Center (SEFSC) and NOAA Office of Science and Technology (OST) workgroup was formed last year to analyze highly imprecise estimate scenarios that are impacting assessments and how to address these concerns. The SSC will receive an update on the progress of this workgroup.

7.4 Public Comment

7.5 Action

- No action needed.

8. SERFS 2023 TRENDS REPORT

8.1 Documents

Attachment 8. SERFS 2023 Trends Report

8.2 Presentation

Dr. Tracey Smart, SCDNR

8.3 Overview

The SSC will receive an update on the 2023 trends report from the Southeast Reef Fish Survey.

8.4 Public Comment

8.5 Action

- No action needed.

The SSC appreciates this informative annual update of SERFS and recommends that length compositions continued to be included in these updates, and also included in assessments (or assessment working documents) because they contain valuable information.

9. SEDAR: RED SNAPPER BENCHMARK TERMS OF REFERENCE

9.1 Documents

Attachment 9. South Atlantic Red Snapper Benchmark Terms of Reference

9.2 Presentation

Dr. Julie Neer, SEDAR Staff

9.3 Overview

At its March 2024 meeting, the SAFMC elected to change the next assessment type of Red Snapper from a coupled Research Track and Operational Assessment to a Benchmark Assessment. The SSC reviewed the terms of reference for the Red Snapper Research Track

Assessment at its February 2024 meeting, but due to the nature of the Research Track assessment type not providing management advice, terms of reference related to stock status determinations and projections were not described. The terms of reference for the Benchmark Assessment include these additions and the SSC should review these modifications and make recommendations where necessary.

9.4 Public Comment

9.5 Action

- Review the Terms of Reference for the South Atlantic Red Snapper Benchmark Assessment.
  - *The SSC made its edits and recommendations to the Terms of Reference and these are reflected in the revised document that will be provided to the Council.*
- Receive update on ongoing SEDAR process revisions.

The SSC had a lot of questions about how this new approach to stock assessments is going to work and what the potential consequences are for the SSC review responsibilities and workload, and is looking forward to receiving updates on this process in future SSC meetings.

10. SEDAR: REVIEW SCOPE OF WORK FOR BLACK SEA BASS

10.1 Documents

*Attachment 10. Scope of Work for Black Sea Bass

10.2 Presentation

SAFMC/SEDAR Staff

10.3 Overview

The SSC finalized its review of SEDAR 76: South Atlantic Black Sea Bass and made catch level recommendations for 2025-2026 to the Council during its February 2024 meeting. Recommendations for the timing of the next assessment were also given and included conducting an interim analysis for providing 2027+ catch levels followed by another assessment. The SSC should review the scope of work for the next Black Sea Bass stock assessment.

10.4 Public Comment

10.5 Action

- Review scope of work for the next Black Sea Bass stock assessment.
  - *The SSC made its edits and recommendations to the Scope of Work and these are reflected in the revised document that will be provided to the Council.*

- *An interim analysis or updated assessment is requested by the SSC to allow them to provide ABC recommendations for 2027 forward. The SEFSC will investigate the tradeoffs between timing and uncertainty between approaches (operational assessment or interim analysis).*

11. SOUTH ATLANTIC RED SNAPPER RESEARCH PROJECT UPDATE

11.1 Documents

*Attachment 11. SARSRP Update Presentation

11.2 Presentation

Dr. Will Patterson, UF

11.3 Overview

The SSC will receive an update on the progress of the South Atlantic Red Snapper Research Project that is using a variety of techniques to estimate the abundance of Red Snapper in the U.S. South Atlantic. Methods being utilized include the combined use of ROV visual surveys and genetic close-kin mark and recapture techniques using fin clip tissue analyses. The results from this project will be integrated into the next benchmark stock assessment for Red Snapper.

11.4 Public Comment

11.5 Action

- No action needed.

The SSC received a thorough overview of this comprehensive research project and a had a few questions about the accuracy of the epigenetic ageing and location of catches of confirmed related Red Snapper. Data analyses for many aspects of this project are ongoing and the SSC is looking forward to receiving the next update.

12. SEP MEETING SUMMARY

12.1 Documents

*Attachment 12. SEP Preliminary Report

12.2 Presentation

Dr. Jennifer Sweeney-Tookes, SEP/SSC

12.3 Overview

The Social and Economic Panel met prior to the SSC this week. An SEP/SSC member will provide a brief summary of the topics discussed.

12.4 Public Comment

12.5 Action

- No action needed.

13. SCS8 MEETING UPDATE

13.1 Documents

Attachment 13. Preliminary Agenda for SCS8

13.2 Presentation

Dr. Judd Curtis, SAFMC Staff

13.3 Overview

The Scientific Coordination Subcommittee will convene its 8th workshop (SCS8) in Boston, MA from August 26-28, 2024. The New England Fishery Management Council (NEFMC) will host this three-day workshop. The meeting format will feature a keynote speaker in each sub-theme area and several regional case studies from SSC members and NOAA staff followed by break-out groups and synthesis of ideas. Expectations for participating members following the meeting will be to assist the implementation of actionable outcomes and pathways forward to their respective regional SSCs.

13.4 Public Comment

13.5 Action

- Review preliminary agenda and sub-theme topics for SCS8.
- Enlist SSC members to represent the SA-SSC at the meeting.
    - *Kai Lorenzen and Christina Package-Ward volunteered.*
    - *Jie Cao will co-present with Matt Damiano on the low recruitment working group work.*

14. OTHER BUSINESS

- *Florida Black Grouper MSE: potential joint GOM/SA SSC meeting to present analytical findings on Black Grouper. Discuss future steps for a Black Grouper MSE.*
- *In addition to those who volunteered during the previous SSC webinar meeting the following members were added to the Red Snapper Benchmark Data Workshop:*
    - *Marcel Reichert*
    - *Anne Markwith*

- *The SSC will evaluate the current working groups in their summer webinar to see if there is a need for consolidation or elimination.*

15. CONSENSUS STATEMENT AND RECOMMENDATIONS

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

The final April SSC report was provided to Council staff on May 6 for inclusion in the briefing book for the June 2024 Council meeting.

16. PUBLIC COMMENT

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

17. ELECTIONS

The SSC elected Marcel Reichert as the new SSC Chair and Walter Bubley as the new SSC Vice-Chair for 2-year terms. The SSC thanked Jeff Buckel and Fred Scharf for their leadership and service during their tenure as Chair and Vice-Chair.

18. NEXT MEETINGS

18.1 Scientific and Statistical Committee Meetings

- Jun/July Webinar (TBD)
- October 22-24, 2024 in Charleston, SC

18.2 South Atlantic Fishery Management Council Meetings

- June 10-14, 2024 in Daytona, FL
- September 16-20, 2024 in Charleston, SC
- December 2-6, 2024 in Wrightsville Beach, NC

ADJOURNED