

SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL

SCIENTIFIC AND STATISTICAL COMMITTEE



SSC Meeting Overview

April 26-28, 2022

Town and County Inn

Charleston, SC

**VERSION
FINAL - REVISED
April 25, 2022**

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Documents:

- Attachment 1. Minutes of the February 2022 meeting
- Attachment 2. SAFMC Public Comment Process
- Attachment 3a. Catch level projections workgroup – final report
- *Attachment 3b. Catch level projections workgroup – presentation
- *Attachment 4a. Goliath grouper ABC review plan – presentation
- ~~*Attachment 5a. Interim analysis strategy – document~~
- ~~*Attachment 5b. Interim analysis strategy – presentation~~
- *Attachment 6. South Atlantic snapper count overview – presentation
- *Attachment 7. Release mortality reduction framework – presentation
- Attachment 8. Deepwater longline survey 2021 update – presentation
- Attachment 9. Blueline tilefish operational assessment terms of reference
- *Attachment 10. SEP meeting summary (post-meeting material)
- Attachment 11. SERFS fishery independent survey update – presentation
- Attachment 12a. Gag scope of work
- Attachment 12b. King Mackerel scope of work
- Attachment 12c. Red Porgy scope of work

* Indicates documents not available for the Briefing Book. These will be distributed as they become available and added to the Late Materials folder.

Background Information:

- Background 3c. Van Beveren et al. 2021. Forecasting fish recruitment in age-structured population models. *Fish and Fisheries* 00:1-14
- *Background 3d. Klaer et al. 2015. How much evidence is required for acceptance of productivity regime shifts in fish stock assessments: Are we letting managers off the hook? *Fisheries Research* 168: 49-55
- Background 4b. SEDAR 47 Southeastern Goliath Grouper Stock Assessment Report

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 a.m. Thursday, April 28, 2022.

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 before the SSC starts the discussion of the agenda topic. 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 and Country Inn, Charleston, SC. Online registration for the meeting can be found at the Council's website: <https://safmc.net/safmc-meetings/scientific-and-statistical-committee-meetings/>.

1. INTRODUCTION

1.1. Documents

- SSC Revised Agenda: April 2022
- Attachment 1. Minutes of the February 2022 meeting

1.2. Action

- Introductions
- Review and Approve Revised Agenda
- Approve Minutes

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.

2.1. Documents

Attachment 2. SAFMC Public Comment Process

3. CATCH LEVEL PROJECTIONS WORKGROUP

3.1. Documents

Attachment 3a. Catch level projections workgroup – final report
*Attachment 3b. Catch level projections workgroup – presentation
Background 3c. Van Beveren et al. 2021 *Fish and Fisheries*
*Background 3d. Klaer et al. 2015 *Fisheries Research*

3.2. Presentation

Dr. Amy Schueller, SEFSC

3.3. Overview

The SSC has recently recommended different approaches to making recruitment assumptions in catch level projections for different stocks. To date, these recommendations have been made on a case-by-case basis in response to apparent trends or new patterns in recruitment relative to the perceived historical productivity of the stock. The SSC requested an opportunity to comprehensively review recent SSC decisions and available literature on the topic, and to develop recommendations for how recruitment assumptions be made in projections used to provide catch level recommendations. An SSC workgroup was formed to address these requests, which met on eight separate occasions from September 2021 to April 2022. An extensive review of the more recent literature on recruitment forecasting produced several useful references that

provided key pieces of information for meeting workgroup objectives. Most notably, Van Beveren et al (2021) undertook a comprehensive simulation study to evaluate the forecast skill of a wide range of recruitment forecasting methods under various circumstances, and this review was instrumental in helping guide workgroup recommendations. In addition to the recommendations for the catch level projections and the longer-term rebuilding and benchmark projections, the workgroup also recommended some additional information to be included in stock assessment reports, as well as future research recommendations.

3.4. Public Comment

3.5. Action

- Review, discuss, and provide feedback
- Adopt workgroup recommendations (with modifications) as best practices:
 - Recommendations for short-term forecasts for ABC determination
 - Recommendations for long-term forecasts for determining rebuilding and benchmarks
 - Stock assessment report recommendations
 - Future research recommendations

SSC RECOMMENDATION:

4. GOLIATH GROUPEL ABC REVIEW PLAN

4.1. Documents

*Attachment 4. Goliath grouper review plan presentation

4.2. Presentation

Dr. Judd Curtis, SAFMC Staff

4.3. Overview

At their March 2022 meeting, the SAFMC passed a motion to request the SSC reconsider the current ABC (set at 0) for Goliath Grouper in South Atlantic federal waters. The request to reconsider the ABC was made following the Florida Fish and Wildlife Commission's approval of a limited, highly regulated recreational harvest for the species in Florida state waters beginning Spring 2023. Harvest of Goliath Grouper has been prohibited for decades, following years of overfishing. During the most recent stock assessment, SEDAR 47 (2014), the review panel (RP) concluded that the assessment did not constitute best scientific information available. The RP had several areas of concern including the data that were available, the treatment of the available data, the high degree of uncertainty associated with the catch and indices of relative abundance, and the structure of the chosen assessment models. The RP recommended that this assessment was not adequate to support status determination and should not be used for management advice. The SSC reviewed this assessment in October 2016 and accepted the

recommendations of the RP. In particular, they agreed with the RP's research recommendations for exploring alternative assessment models and critical data needs. More recent data indices and new data streams have become available or updated since this last stock assessment. The SSC should list and discuss these data sources and other available information at the April SSC meeting and outline an approach for a more thorough SSC review of these data at the October meeting.

4.4. Public Comment

4.5. Action

- Consider any new data streams and updated indices since last stock assessment.
- Determine what analysis is needed to reconsider an ABC currently set at 0.
- Outline an approach for review of these data.

SSC RECOMMENDATION:

5. INTERIM ANALYSIS STRATEGY (Postponed)

~~5.1. Documents~~

~~*Attachment 5a. Interim analysis strategy—document~~

~~*Attachment 5b. Interim analysis strategy—presentation~~

~~5.2. Presentation~~

~~Dr. Nikolai Klibansky and Dr. Cassidy Peterson, SEFSC~~

~~5.3. Overview~~

~~We conducted a management strategy evaluation (MSE) to investigate how management procedures that adjust catch advice between stock assessments performed compared with existing management procedures. We built operating models (OM) for four reef fish species from the US Southeast Atlantic, based on recent stock assessments including Black Sea Bass, Red Porgy, Snowy Grouper, and Vermilion Snapper. These OM contained parameters and data specific to each stock, associated fisheries, and the sampling programs that monitor them. The analysis assumed efficient implementation of management, such that observed catch was equal to total allowable catch (TAC). Our analysis focused on a base scenario intended to most closely characterize the reality of each stock. We also developed multiple alternative scenarios to investigate the sensitivity of the analysis to deviations from the base configuration. A set of management procedures (MP) was applied independently in closed loop simulation for each species and scenario, with many replicate runs. The MP varied in terms of how often stock assessments were conducted (every 1, 5, or 10 years), and how catch advice (i.e. TAC) was adjusted between stock assessments. Between assessments, TACs were either fixed, adjusted based on projections, or adjusted based on a reference index of abundance.~~

Results varied among species and scenarios, but generally showed that healthy stock and fishery status ($SSB > SSB_{MSY}$ and $F < F_{MSY}$) and comparable levels of total catch could be maintained with stock assessments conducted every 1, 5 or 10 years, whether TACs were fixed, projected, or adjusted based on indices of abundance. But these management procedures vary in terms of average annual variability in yield (AAVY), which was highest when TACs were adjusted based on indices of abundance and lowest when TACs were fixed between assessments.

~~5.4. Public Comment~~

~~5.5. Action~~

- ~~● Review, discuss, and provide feedback on the interim analysis strategy~~
- ~~● Can interim analysis be a tool to improve management during the interval between assessments? If yes, how should it be implemented?

 - ~~○ What hurdles might the SSC run across in recommending/adopting new recommendations or actions based on interim analysis?~~
 - ~~○ How would the interim analysis strategy integrate with the proposed ABC control rule?~~~~
- ~~● To what degree can/should interim analysis replace current stock assessments or reduce the frequency of full stock assessments?~~
- ~~● Does the SSC have any advice for next steps in studying the effectiveness of interim analysis? (e.g., Is more simulation analysis required? Does this need to be done for more species?)~~

SSC RECOMMENDATION:

6. SOUTH ATLANTIC RED SNAPPER COUNT

6.1. Documents

*Attachment 6. South Atlantic Red Snapper Count Overview – presentation

6.2. Presentation

Dr. Will Patterson, University of Florida

6.3. Overview

The SSC will receive an update on the progress of the South Atlantic Red Snapper Count project that is estimating an absolute abundance of Red Snapper in the U.S. South Atlantic through the combined use of ROV visual surveys and genetic close-kin mark and recapture techniques using fin clip tissue analyses. The absolute abundance estimate generated from this study will serve as an independent estimate that will integrate into the next research track stock assessment for Red Snapper scheduled to begin in 2024.

6.4. Public Comment

6.5. Action

- Comment and provide feedback
- Discuss how this estimate will be integrated into next Red Snapper stock assessment process.
 - What potential obstacles might there be in using these data?

7. RELEASE MORTALITY REDUCTION FRAMEWORK

7.1. Documents

*Attachment 7. Release mortality reduction framework – presentation

7.2. Presentation

Dr. Mike Schmidtke, SAFMC staff

7.3. Overview

In March 2022, the Council initiated a regulatory amendment to reduce release mortality in the snapper grouper fishery and implement catch levels for Red Snapper based on the SEDAR 73 stock assessment. SEDAR 73 indicating that the South Atlantic Red Snapper stock is overfished and experiencing overfishing but is making adequate progress according to its current rebuilding plan. The assessment indicated that the majority of Red Snapper fishing mortality occurs as release mortality rather than through landings. While increased use of best practices, including descending devices, has increased survival rates for released fish, the high number of Red Snapper caught out of season has continued the high number of fish estimated to die as a result of being caught and released. Therefore, the Council is investigating potential management measures to reduce out-of-season encounters for Red Snapper as well as other snapper grouper species, including time, area, and depth-based restrictions. As part of the information gathering process, Council staff is compiling biological, socioeconomic, information on the Snapper Grouper fishery that are relevant to seasonality of the fishery, effort within the fishery, and previous Council efforts to examine similar time, area, and depth-based restrictions.

7.4. Public Comment

7.5. Action

- Discuss uncertainty of proposed mechanisms for reducing discards. What data or analyses could improve efforts to quantify the impact of regulations directed at reducing releases and discard losses?
- Would reducing the number of Red Snapper that are discarded dead provide an opportunity for increased harvest?
 - If yes,

- How would shifting yield from discards to harvest affect assessment uncertainties and efforts to prevent overfishing?
- Are additional projections required for the SSC to provide an updated ABC that reflects the change in discard removals?
 - If no, explain.

8. SEFSC 2021 DEEPWATER LONGLINE SURVEY

8.1. Documents

Attachment 8. SEFSC 2021 deepwater longline survey – presentation

8.2. Presentation

Dr. Todd Kellison, SEFSC

8.3. Overview

The SSC will receive an update on the SEFSC deepwater longline survey with sampling efforts and results through 2021.

8.4. Public Comment

8.5. Action

- No specific actions needed.

9. BLUELINE TILEFISH OPERATIONAL ASSESSMENT TERMS OF REFERENCE

9.1. Documents

Attachment 9. Blueline Tilefish operational assessment terms of reference

9.2. Presentation

Kathleen Howington, SEDAR Staff

9.3. Overview

The SSC is asked to review and provide comments and feedback on the draft SEDAR operational assessment terms of reference for Blueline Tilefish.

9.4. Public Comment

9.5. Action

- Review draft TOR and provide comments

10. SEP MEETING SUMMARY

10.1. Documents

*Attachment 10. SEP meeting summary (post-meeting material)

10.2. Presentation

Dr. Scott Crosson, SEP/SSC

10.3. Overview

The SSC will receive a summary of topics discussed at the SEP meeting. The SEP meeting summary and report will be added to the final SSC report.

10.4. Public Comment

10.5. Action

- none

11. SOUTHEAST REEF FISH SURVEY (SERFS) UPDATE

11.1. Documents

Attachment 11. Southeast Reef Fish Survey update – presentation

11.2. Presentation

Dr. Tracey Smart, SCDNR

11.3. Overview

The SSC will receive an update on the Southeast Reef Fish Survey (SERFS) sampling efforts and results through 2021.

11.4. Public Comment

11.5. Action

- No specific actions required.

12. SCOPES OF WORK FOR 2025 OPERATIONAL ASSESSMENTS

12.1. Documents

- Attachment 12a. Gag scope of work
- Attachment 12b. King Mackerel scope of work
- Attachment 12c. Red Porgy scope of work

12.2. Presentation

Dr. Chip Collier, SAFMC staff

12.3. Overview

The SSC is asked to review the draft scopes of work planned for 2025, which include Gag, King Mackerel, and Red Porgy, and provide comments and feedback for the upcoming operational assessments. Staff divided the research recommendations from the previous assessment into categories. The SSC should discuss and provide requested model modifications appropriate for an operational assessment.

12.4. Public Comment

12.5. Action

- Review draft Scopes of Work and provide comments

13. FISHERY MANAGEMENT PLAN AMENDMENT UPDATES

13.1. Documents

none

13.2. Presentation

Myra Brouwer and Dr. Judd Curtis, SAFMC staff

13.3. Overview

The SSC will receive an update on the various fishery management plan amendments currently being considered by the Council, and the decisions made on previous amendments that were reviewed by the SSC.

13.4. Public Comment

13.5. Action

- No specific actions needed.

14. OTHER BUSINESS

- SEDAR78: South Atlantic Spanish Mackerel operational assessment update – SAFMC Staff
- Yellowtail Snapper interim analysis timeline – SAFMC Staff
- SEDAR79: Mutton Snapper benchmark assessment update – SAFMC Staff
- EwE operating model and MSE update – SAFMC staff
- National SSC meeting participation and presentation questions

15. PUBLIC COMMENT

The public is provided an additional opportunity to comment on SSC recommendations and agenda items.

16. CONSENSUS STATEMENTS AND RECOMMENDATIONS REVIEW

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

The Final SSC report will be provided to the Council by 9:00 a.m. on Friday, May 20th (approximately 3 weeks from the end of the meeting) for inclusion in the briefing book for the June Council meeting.

17. ELECTIONS

18. NEXT MEETINGS

- 2022 Scientific and Statistical Committee Meeting Dates:
 - July (webinar) – July 20-22 (tentative)
 - October 2022 in Charleston, SC – dates TBD
 - April 2023 in Charleston, SC – dates TBD (earlier in April)
- 2022 Council Meetings
 - June 13-17 in Key West, FL
 - September 12-16 in Charleston, SC
 - December 5-9 in Wrightsville Beach, NC

ADJOURN