SEDAR
SouthEast Data, Assessment, and Review

4055 Faber Place Drive #201
North Charleston SC 29405

Phone (843) 571-4366
Fax (843) 769-4520
www.sedarweb.org

SEDAR 90 South Atlantic Red Snapper
DRAFT Research Track Terms of Reference
February 2024

Data Workshop Terms of Reference

Definition of assessment unit stock was determined by the Red Snapper planning team. The northern threshold is the default boundary between South Atlantic and Mid-Atlantic council jurisdictions, and the southern threshold is default boundary between the South Atlantic and the Gulf of Mexico council jurisdictions.

A. Review, discuss, and tabulate available life history information that is appropriate for use in a stock assessment model.
   - Evaluate age, growth, natural mortality, and reproductive characteristics.
     - Explore the validity of age data and methodology across fish age readers and facilities.
     - Explore emerging technologies (e.g., Near IR spectroscopy).
   - Explore differences in growth parameters, spawning fractions, and fecundity data.
   - Provide appropriate models to describe population and stock specific (if warranted) growth, maturation, and fecundity by age, sex, or length as applicable.
   - Evaluate and discuss the sources of uncertainty and error, and data limitations (such as temporal and spatial coverage) for each data source. Provide estimates or ranges of uncertainty for all life history information.

B. Provide measures of population abundance that are appropriate for this stock assessment.
   - Consider all available and relevant fishery-dependent and -independent data sources, including:
     - State of Florida Data Surveys
     - SCDNR Juvenile Survey
     - South Atlantic Deepwater Longline (SADL) Survey
   - Document all programs evaluated: address program objectives, methods, coverage, sampling intensity, and other relevant characteristics.
   - Provide maps of fishery and independent survey coverage.
   - Develop fishery and survey CPUE indices by appropriate strata (e.g., age, size, area, and fishery).
   - Provide appropriate measures of uncertainty for the abundance indices to be used in stock assessment models.
   - Document pros and cons of available indices regarding their ability to represent

abundance.

- Categorize the available indices into one of three tiers: Suitable and Recommended, Suitable and Not Recommended, or Not Suitable.
- For recommended indices, document any known or suspected temporal patterns in catchability not accounted for by standardization.

C. Provide commercial catch statistics including both landings and discards in both pounds and number.
   - Evaluate and discuss the adequacy of available data for accurately characterizing landings and discards by fishery sector or gear.
   - Provide length and age distributions for both landings and discards if feasible.
   - Provide estimates of uncertainty around each set of landings and discard estimates.

D. Provide recreational catch statistics including both landings and discards in both pounds and number.
   - Evaluate and discuss the adequacy of available data for accurately characterizing landings and discards by fishery sector or gear.
   - Provide length and age distributions for both landings and discards if feasible.
   - Provide estimates of uncertainty around each set of landings and discard estimates.
   - Evaluate the utility of FISHStory and SEFHIER.

E. Recommend discard mortality rates for the fleets recommended by the panel.
   - Review available research and published literature (e.g., RELEASE, NMFS Observer Program).
   - Provide estimates of discard mortality rate by fleet, depth, and other feasible or appropriate strata.
   - Provide estimates of uncertainty around recommended discard mortality rates.
   - Document the rationale for recommended rates and uncertainties.

F. Consider social and economic information for inclusion into the stock assessment as practicable.

G. Consider any known evidence regarding ecosystem, climate, species interactions (e.g., predation studies), habitat considerations, species range modifications (expansions or contractions), regime shifts, larval movement between stock boundaries, and/or episodic events (including red tide, upwelling events, and hypoxia*)* that would reasonably be expected to affect Red Snapper population dynamics and are appropriate for inclusion in the stock assessment (e.g., Larval Transport Modeling (*Brothers et al.*)).

H. Consider the life history and spatial abundance data from the South Atlantic Red Snapper Research Project (SARSRP). Provide recommendations for use in the assessment process.

I. Provide recommendations for future research that will improve the stock assessment model.

J. Prepare a Data Workshop report providing complete documentation of workshop actions and decisions in accordance with project schedule deadlines.

Assessment Terms of Reference

1. Review any changes in data or analyses following the Data Workshop. Summarize data as used in each assessment model. Provide justification for any deviations from Data Workshop recommendations.

2. Develop population assessment model(s) that are appropriate for the available data.
   - Consider and incorporate as appropriate the information derived from the South Atlantic Red Snapper Research Program (SARSRP) and other independent studies.
   - Evaluate selectivity and retention functions for all directed, discard, and bycatch fleets as appropriate.
   - Evaluate alternate stock recruitment functions.
   - Consider the appropriate fleet structure.
   - Consider simulation testing for incorporation of the SARSRP data into the stock assessment.

3. Provide estimates of stock population parameters.

4. Utilize the available webinars to discuss the final CIE report for the SARSRP.
   - Review the CIE report.
   - Finalize data decisions.
   - Determine the best method for incorporating the SARSRP into the model.

5. Characterize uncertainty in the assessment and estimated values.

6. Provide recommendations for future research and data collection. Emphasize items that will improve future assessment capabilities and reliability. Consider data, monitoring, and assessment needs.

7. Complete an Assessment Workshop Report in accordance with project schedule deadlines.

Review Workshop Terms of Reference

1. Evaluate the data used in the assessment, including a discussion of the strengths and weaknesses of data sources and decisions. Consider the following:
   - Are data decisions made by the Data and Assessment processes justified?
   - Are data uncertainties acknowledged, reported, and within normal or expected levels?
   - Is the appropriate model properly applied to the available data?
   - Are input data series sufficient to support the assessment approach?

2. Evaluate and discuss the strengths and weaknesses of the methods used to assess the stock, taking into account the available data. Consider the following:
   - Are methods scientifically sound and robust?
   - Are priority modeling issues clearly stated and addressed?
   - Are the methods appropriate for the available data?
   - Are assessment models configured properly and used in a manner consistent with standard practices?

3. Consider how uncertainties in the assessment, and their potential consequences, are addressed.
   - Comment on the degree to which methods used to evaluate uncertainty reflect and capture the significant sources of uncertainty in the population, data sources, and assessment methods.

4. Provide, or comment on, recommendations to improve the assessment.
   - Consider the research recommendations provided by the Data and Assessment processes in the context of overall improvement to the assessment and make any additional research recommendations warranted.
   - If applicable, provide recommendations for improvement or for addressing any inadequacies identified in the data or assessment modeling. These recommendations should be described in sufficient detail for application and should be practical for short- term implementation (e.g., achievable within ~6 months for the follow-up Operational Assessment). Longer-term recommendations should instead be listed as research recommendations above to be applied to future stock assessments.

5. Provide recommendations on possible ways to improve the Assessment process.

6. Prepare a Review Workshop Summary Report describing the Panel's evaluation of the stock assessment and addressing each Terms of Reference.

SEDAR 90
South Atlantic Red Snapper
DRAFT Schedule of Events
January 2024

Planning Team Established..... August 2022
ToR and Milestone Schedule Development ..... February – September 2023
ToR, Schedule, and Request for participants to the SSC ..... February 2024
ToR, Schedule, and Participants Approved..... March 2024

Assessment Data Scoping Webinar (DW Panel)..... week of November 12, 2024

Data Webinar 1 .....week of January 13, 2025
Compilation of length and age data .....March 3, 2025
Deadline for preliminary commercial landings data & MRIP catch estimates March 10, 2025

Data Webinar II .....week of March 17, 2025
Deadline for preliminary analytical products, including SRHS catch and commercial discards, nominal LC, indices.....March 24, 2025

DW Working Paper to SEDAR Staff ..... April 7, 2025
Pre-Data Workshop Webinar (discard mortality) .....week of April 7, 2025

Data Evaluation Workshop (Charleston, SC)..... April 14-18, 2025

Post Workshop Webinar .....week of May 5, 2025
Final MRIP Catch .....May 5, 2025
Final Analytical Products due.....May 19, 2025

Post Workshop Webinar II .....week of June 2, 2025
Deadline for Final Working Papers ..... June 23, 2025
Draft DW Reports to DW Panel for Review ..... June 30, 2025
Report Comments due to Editors.....July 14, 2025
Final DW Reports due to SEDAR Staff .....July 28, 2025
Data Workshop Report Distribution..... August 11, 2025

All dates tentative from this point forward, depending on data analysis

Assessment Webinar I *(Data and Assessment panels welcome)*.....September 2025
AW Working Paper Submission to SEDAR Staff.....October 2025
Assessment Webinar II.....October 2025

SARSRP Webinar .....November 2025
SARSRP Webinar II..... December 2025

Assessment Webinar III..... January 2026
ADT to determine if methods of integration require extension of the schedule ....January 2026
Assessment Webinar IV ..... February 2026
Assessment Webinar V..... March 2026
ADT to determine if Assessment will be ready for September 2026 Review ..... March 2026
Assessment Webinar VI ..... April 2026

Assessment Report Draft to Panel for Review ..... May 2026
Assessment Panel Report Comments due to Editors..... May 2026
Final Assessment Report to SEDAR staff..... June 2026
Assessment Report Distribution .....July 2026

RW Working Paper Submission.....July 2026
Final Distribution to Review Panel.....July 2026

Review Workshop: Beaufort, NC..... September 2026
First Draft Review Reports..... End of Workshop
Review Workshop Panel Drafts due to Chair.....October 2026
Review Workshop Addenda/Revision Reports due to Chair & SEDAR Staff .....October 2026
Review Workshop Reports due to SEDAR Staff.....November 2026
Complete Assessment Report Submitted to HMS/SERO/SEFSC.....November 2026

Assessment Information and Contacts

Prior Assessment: SEDAR 73 South Atlantic Red Snapper

Terminal year of prior assessment: 2019

Terminal year for this assessment: 2024

Lead Analysts and Agency: SEFSC, Kyle Shertzer (Kyle. Schertzer@noaa.gov)

Data Compiler and Agency: SEFSC, Kelly Adler (Kelly.Adler@noaa.gov)

SEDAR Coordinator: Meisha Key (Meisha.Key@safmc.net)

SEDAR Cooperator: South Atlantic Fishery Management Council